



8th International Conference
June 28th – 30th, 2014 | Geisenheim, Germany

Conference proceedings

<http://academyofwinebusiness.com/>

Academy of Wine Business Research
8th International Conference
June 28th – 30th, 2014
Geisenheim / Germany

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PROGRAM

Saturday | Sunday | Monday

Academy of Wine Business Research

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Saturday, June 28th 2014 - Aula

08:30 Welcome

- ❖ Dr. Gergely Szolnoki - co-chair of the 8th AWBR conference
Prof. Dr. Dieter Hoffmann – co-chair of the 8th AWBR conference
- ❖ Prof. Dr. Hans-Reiner Schultz – President Geisenheim University
- ❖ Prof. Dr. Larry Lockshin – President of AWBR

Plenary Sessions

Selling Wine Successfully in the XXI Century

Aula

09:15	Dieter HOFFMANN , Geisenheim University: <i>The German Wine Market</i>
09:45	Dieter GREINER , Managing Director, <i>Hessische Staatsweingüter GmbH Kloster Eberbach</i>

Coffee Break 10:30 – 11:00

11:00	Rowald HEPP , Managing Director, Wine Estate Schloss Vollrads
11:45	Alexander MARGARITOFF , CEO, HAWESKO Holding AG
12:45	Johan BRUWER , Editor-in-chief, International Journal of Wine Business Research

Lunch 13:00 – 14:00

Saturday, June 28th 2014, afternoon: parallel sessions 1 - 3

Consumer Behavior I – H10			
Session Chair: Armando Maria Corsi			
Session 1	14:00	CB01	<u><i>Tell me why you like to drink wine: Drinking motivations as a basis for market segmentation</i></u> David PALMA, Carlos CORNEJO, Juan de Dios ORTÚZAR, Luis I. RIZZI and Gerard CASAUBON
	14:15	CB02	<u><i>Objective and Subjective Wine Knowledge: Evidence from an Online Study</i></u> Karen ROBSON, Kirk PLANGGER, Colin CAMPBELL and Leyland PITT
	14:30	CB03	<u><i>Lessons learned from an international research project on wine consumption</i></u> Dávid HARSÁNYI and Gergely SZOLNOKI
	14:45	CB04	<u><i>Understanding the wine consumption behaviour of Generation Y in Italy</i></u> Roberta CAPITELLO, Lara AGNOLI and Diego BEGALLI
	15:00		Discussion

Sustainability I – H12			
Session Chair: Susan Golicic			
Session 2	14:00	SUS01	<u><i>Sustainable Balanced Scorecard Model for Chilean Wineries</i></u> Lionel VALENZUELA OYANEDER and Sergio MATORANA VALDERRAMA
	14:15	SUS02	<u><i>Who is buying sustainable wine? A lifestyle segmentation of German wine consumers</i></u> Bastian KLOHR and Ruth FLEUCHAUS, Ludwig THEUVSEN
	14:30	SUS03	<u><i>Extrinsic wine attributes importance on Canadian consumers purchase decisions for environmentally sustainable wines</i></u> Paulo LOPES, Richard SAGALA and Tim DODD
	14:45	SUS04	<u><i>A Sustainable Response to the Requirements of the Aware Consumer: The Case of the New Drought-Resistant Rootstocks</i></u> Luigino BARISAN, Vasco BOATTO, Edoardo A. C. COSTANTINI, Luigi GALLETTO, Romina LORENZETTI, Eugenio POMARICI and Riccardo VECCHIO
	15:00		Discussion

Case Study – H13			
Session Chair: Armand Gilinsky			
Session 3	14:00	CS01	<u><i>Under the Bench Cellars</i></u> Carman W. CULLEN, Adrienne KOLICH and Michael MARINI
	14:15	CS02	<u><i>The Impact of Knowledge Acquisition on the Earliness of Innovation Adoption: A Case Study of German Grape Producers</i></u> Patrick STAUB
	14:30	CS03	<u><i>Can wine tourism remedy poor wine marketing? The case of Beaujolais</i></u> Laurence COGAN-MARIE and Steve CHARTERS
	14:45	CS04	<u><i>An exploratory research on the jurisprudence related to PDO wine specifications</i></u> Elsa GATELIER and Clémence GEORGELIN
	15:00		Discussion

Coffee Break 15:30 – 16:00

Saturday, June 28th 2014, afternoon: parallel sessions 4 – 6

Business Management I – H10			
Session 4	Session Chair: Tatiana Zalan		
	16:00	BM01	<u><i>A Theoretical Framework to Measure the Success of M&A Activities Among German Winegrowers' Cooperatives</i></u> Bettina MERLIN
	16:15	BM02	<u><i>Full cost analysis for the creation of managerial benchmarks in the wine sector: a case study in Tuscany</i></u> Enrico MARONE, Marco BERTOCCI, Nicola MARINELLI and Fabio BONCINELLI
	16:30	BM03	<u><i>Winery reputation – Do German guides provide orientation on wineries and is engagement and investment attractive for wineries?</i></u> Marc DRESSLER and Anika KOST
	16:45		Discussion
	17:00	BM04	<u><i>International Analysis of the Profitability of Wine Grape Production</i></u> Kathrin STROHM, Walter DIRKSMEYER and Hildegard GARMING
	17:15	BM05	<u><i>How to deal with quality problems of German wine cooperatives - A double principal-agent approach -</i></u> Jon H. HANF and Maximilian ISELBORN
	17:30		Discussion

Retail/ Supply Chain – H12			
Session 5	Session Chair: Dieter Hoffmann		
	16:00	RET01	<u><i>Institutional Pressures and Relationships in the Wine Supply Chain</i></u> Susan L. GOLICIC, Donna F. DAVIS, Beth DAVIS-SRAMEK and Teresa M. McCARTHY-BYRNE
	16:15	RET02	<u><i>Does Choice Overload Exist in Wine Retail?</i></u> Douglas ZUCKER and Hervé REMAUD
	16:30	RET03	<u><i>Creating the ideal purchasing environment for consumers: specialist wine retail outlets in the UK</i></u> Katherine CANFIELD and Damien WILSON
	16:45		Discussion
	17:00	RET04	<u><i>Multifunctional diversification for the Italian wine producers: the state of the art in the adoption of deepening strategies</i></u> Silvio MENGHINI, Veronica ALAMPI SOTTINI, Nicola MARINELLI, Benedetta MERLO and Sara FABBRIZZI
	17:15	RET05	<u><i>Supply chain analysis of the German bulk wine market</i></u> Marianne STEINSCHULTE
	17:30		Discussion

China – H13			
Session 6	Session Chair: Tatiana Bouzdine-Chameeva		
	16:00	CH01	<u><i>Store image perception of retail outlets for wine in China</i></u> Armando Maria CORSI, Justin COHEN and Larry LOCKSHIN
	16:15	CH02	<u><i>German Wines in China</i></u> Lishi ZENG and Gergely SZOLNOKI
	16:30	CH03	<u><i>Perception of wine labels by Hong Kong Chinese consumers</i></u> Vicky Chi Man TANG and Eli COHEN
	16:45		Discussion
	17:00	CH04	<u><i>Wine consumption in China: Cultural globalization with Regional Differences</i></u> David MENIVAL and Huai Yuan HAN
	17:15	CH05	<u><i>Testing lexical equivalences for Chinese consumers: Do hawthorns taste like blackberries?</i></u> Armando Maria CORSI, Justin COHEN and Larry LOCKSHIN
	17:30		Discussion

Dinner Social

Sunday, June 29th 2014, morning: parallel sessions 7 - 9

Consumer Behavior II – H10			
Session Chair: Hervé Remaud			
Session 7	08:30	CB05	<u><i>"In Vino Veritas" – But What, In Truth, Is In the Bottle? Experience Goods, Fine Wine Ratings, and Wine Knowledge</i></u> Denton MARKS
	08:45	CB06	<u><i>Effects of search attributes on price variability: empirical evidence for wines from Puglia region</i></u> Antonio SECCIA, Domenico CARLUCCI, Guiseppe MAGGI and Gianluca NARDONE
	09:00	CB07	<u><i>Regulating Alcohol Marketing practices in France and UK</i></u> Tom FARRELL and Benoît LECAT
	09:15		Discussion
	09:35	CB08	<u><i>Influence of Price and Decision Style on Wine Quality Judgment and Purchase Intentions</i></u> Guenter SCHAMEL and Michael BOSNJAK
	09:50	CB09	<u><i>What wineries do ... Is it what customers want? Relationship Marketing in the German Wine Industry</i></u> Edith RUEGER-MUCK, Anne Lena WEGMANN and Philipp PIROTH
	10:05		Discussion

Business Management II - H12			
Session Chair: Nicola Marinelli			
Session 8	08:30	BM06	<u><i>How successful are German wine enterprises? - A value added & business profit based analysis -</i></u> Maximilian ISELBORN and Matthias MEND
	08:45	BM07	<u><i>A Strategic Approach to the Analysis of Global Wine Industry positioning</i></u> Geoffrey LEWIS, Tatiana ZALAN and Matthew SCHEBELLA
	09:00	BM08	<u><i>Implications of strong resource capabilities in a family wine business</i></u> Paud WOODFIELD
	09:15		Discussion
	09:35	BM09	<u><i>Vine planting rights, farm size and economic performance: do economies of scale matter in the French viticulture sector?</i></u> Bernard DELORD, Alfredo COELHO and Étienne MONTAIGNE
	09:50	BM10	<u><i>New Technologies & Unefficiency In Winemaking</i></u> Mark STROBL
	10:05		Discussion

Packaging – H13			
Session Chair: Gergely Szolnoki			
Session 9	08:30	PACK1	<u><i>Putting a Face to the Brand: How Wishful Seeing Enhances Brand Liking</i></u> Ulrich R. ORTH, Jana OHLHOFF, Christiane NABER and T. Bettina CORNWELL
	08:45	PACK2	<u><i>Love at second sight: Temporal effects of design typicality on brand liking</i></u> Nadine KARNAL, Mareike WENDT, Tatiana BOUZDINE-CHAMEEVA, T. Bettina CORNWELL and Ulrich R. ORTH
	09:00	PACK3	<u><i>The mere presence of a photo on a product label can change taste perception (Working paper)</i></u> Antonia MANTONAKIS, Brittany CARDWELL, Randi BECKETT, Eryn NEWMAN and Maryanne GARRY
	09:15		Discussion
	09:35	PACK4	<u><i>The impact of meal experiences and packaging on wine choices</i></u> Francois DURRIEU
	09:50	PACK5	<u><i>To Cork or Not to Cork: Wine Consumption Situations and the Appropriateness of Bottle Closures</i></u> Dale DUHAN, Shannon RINALDO, Natalia VELIKOVA, Tim DODD and Brent TRELA
	10:05		Discussion

Coffee Break 10:30 – 11:00

Sunday, June 29th 2014, morning: parallel sessions 10 - 12

Social Media/ online I – H10			
Session Chair: Damien Wilson			
Session 10	11:00	SMon01	<u><i>U.S. Wineries Use Social Media to Engage Consumers, Improve Brand Image and Increase Revenue</i></u> Marianne McGARRY WOLF and Mitch WOLF
	11:15	SMon02	<u><i>Exploring German Winery Adoption of Web 2.0 Components: What impact does the size of a winery have on the use of social media and consumer engagement?</i></u> Dani KOLB and Liz THACH
	11:30	SMon03	<u><i>A cross-cultural comparison of social media usage in the wine business</i></u> Gergely SZOLNOKI, Dimitri TAITIS, Carsten HOFFMANN, Ruth LUDWIG, Liz THACH, Rebecca DOLAN, Steve GOODMAN, Cullen HABEL, Sharon FORBES, Nicola MARINELLI, Damien WILSON, Antonia MANTONAKIS, Philip ZAWADA, Zoltán SZABÓ, Ildiko CSAK, Caroline RITCHIE, Su BIRCH and Siobhan THOMPSON
	11:45		Discussion
	12:05	SMon04	<u><i>Click, Ship, Sip: Who is the Online Wine Buyer?</i></u> Lindsey M. HIGGINS, Marianne McGARRY WOLF, Rachel BITTER and William AMSPACHER
	12:20	SMon05	<u><i>Influences of M-commerce and Social Media on Wine Purchases: A Multi-Cultural Study</i></u> Jean-Éric PELET, Benoît LECAT, Jashim KHAN, Linda W. LEE, Debbie VIGAR-ELLIS, Marianne McGARRY WOLF, Sharyn RUNDLE-THIELE, Niki KAVOURA, Vicky KATSONI and Anne Lena WEGMANN
	12:35		Discussion

Sustainability II/ Niche Strategies/ Grape Varieties - H12			
Session Chair: Ruth Fleuchaus			
Session 11	11:00	SUS05	<u><i>Environmental Impacts of Wine Production: A Pilot Study Exploring Consumer Knowledge and Environmental Concern</i></u> Michaela NUEBLING, Carl BEHNKE and Rhonda HAMMOND
	11:15	SUS06	<u><i>The Impact of Eco-Friendly Attributes on Bordeaux Wine Tourism and Direct to Consumer Sales</i></u> Wendy HOLOHAN and Hervé REMAUD
	11:30	SUS07	<u><i>Perceived Efficacy of Sustainability Strategies in the U.S., Italian and Spanish Wine Industries: A Comparative Study</i></u> Armand GILINSKY Jr., Sandra K. NEWTON, Thomas ATKIN, Cristina SANTINI, Alessio CAVICCHI, Agusti CASAS ROMEO and Ruben HUERTAS
	11:45		Discussion
	12:05	NS01	<u><i>Niche Strategy and Resources: dilemmas and open questions, an exploratory study</i></u> Cristina SANTINI, Alessio CAVICCHI, Armand GILINSKY, Sandra NEWTON and Samuel RABINO
	12:20	GV01	<u><i>Where in the world are various winegrape varieties grown? Evidence from a new database</i></u> Kym ANDERSON and Nanda ARYAL
	12:35		Discussion

Tourism/ Events I – H13			
Session Chair: Marlene Pratt			
Session 12	11:00	TE01	<u><i>The Role of Event Marketing in Case of the Buda Castle Wine Festival</i></u> Zoltán SZABÓ, Anikó KOMÁROMI-GERGELY and Zsuzsanna SZÉLES
	11:15	TE02	<u><i>Customer Engagement: A comparison between Australian and French Wine Events</i></u> Teagan ALTSCHWAGER, Jodie CONDUIT, Tatiana BOUZDINE-CHAMEEVA and Steve GOODMAN
	11:30	TE03	<u><i>Major Attributes of Tourism Attractiveness of Wineries and Their Influence on Direct Sales</i></u> Juliane RATZ and Axel DREYER
	11:45		Discussion
	12:05	TE04	<u><i>A Presentation of the Primary Research on Visitation to Wine Festivals and Wineries in British Columbia</i></u> Blair BALDWIN
	12:20	TE05	<u><i>Quality Improvements and International Positioning of Chilean and Argentine Wines</i></u> Fulvia FARINELLI
	12:35		Discussion

Lunch 13:00 – 14:00

Sunday, June 29th 2014, afternoon: parallel sessions 13 - 15

Consumer Behavior III – H10			
Session Chair: Denton Marks			
Session 13	14:00	CB10	<u><i>The Challenge of Cohesive Brand Positioning: Convergence of Innovative, Modern, Traditional, and/or Classic</i></u> Daniel J. FLINT, Paola SIGNORI and Susan L. GOLICIC
	14:15	CB11	<u><i>Exploring Attributes of Variety Seeking Wine Consumers in the US</i></u> Janeen OLSEN, Tom ATKIN, Liz THACH and Steve CUELLAR
	14:30	CB12	<u><i>Yes Way, Rosé! Cross-Cultural Comparison of Consumer Preferences, Perceptions and Attitudes towards Rosé Wine</i></u> Natalia VELIKOVA, Steve CHARTERS, Tatiana BOUZDINE-CHAMEEVA, Joanna FOUNTAIN, Caroline RITCHIE and Tim DODD
	14:45	CB13	<u><i>Business Operations of Wine-Specialized On-Trade SMEs: The Case of South Korea</i></u> Jeeah HWANG and Martin KUNC
	15:00		Discussion

Country of Origin/ Terroir I – H12			
Session Chair: Steve Charters			
Session 14	14:00	CoO1	<u><i>What is the concept of terroir? Discussion with Bernard van Berg, a wine-grower in Meursault: a case study on "the most simply wine"</i></u> David BALLANTYNE, Claude CHAPUIS, Benoît LECAT and Nic S. TERBLANCHE
	14:15	CoO2	<u><i>Anything but Typical: How Consumers Evaluate Origin Products Based on Their Cues</i></u> Nathalie SPIELMANN
	14:30	CoO3	<u><i>Terroir and wine differentiation. A cross-case analysis on French and Italian wine producers' perceptions</i></u> Angelo RIVIEZZO, Antonella GAROFANO, Julien GRANATA and Samaneh KAKAVAND
	14:45	CoO4	<u><i>The concept of terroir: The elusive cultural elements as defined by the Central Otago Wine Region</i></u> Susan CAPLE and Maree THYNE
	15:00		Discussion

Education – H13			
Session Chair: Ray Johnson			
Session 15	14:00	EDU01	<u><i>Skills Desired by Recruiters for Graduates from Food, Agriculture and Wine Fields of Study</i></u> Marianne McGARRY WOLF, Mitch WOLF and Evis QENANI
	14:15	EDU02	<u><i>Optimising the impact of wine education on Asian international students</i></u> Armando Maria CORSI, Justin COHEN and Larry LOCKSHIN
	14:30	EDU03	<u><i>Wine Business Education in a Networked World</i></u> Tatiana ZALAN and Geoffrey LEWIS
	14:45	EDU04	<u><i>Exploring self-reported wine reviews as a means to measure the effectiveness of wine education?</i></u> Colin CAMPBELL, Justin COHEN, Armando Maria CORSI, Larry LOCKSHIN and Anna CHEN
	15:00		Discussion

Coffee Break 15:30 – 16:00

Sunday, June 29th 2014, afternoon: parallel sessions 16 – 18

Social Media/ Online II – H10			
Session Chair: Marianne McGarry Wolf			
Session 16	16:00	SMon6	<u>Exploring the Impact of Social Media Practices on Wine Sales in US Wineries</u> Liz THACH and Terry LEASE
	16:15	SMon7	<u>Reputation Management on the Internet: Content and Impact of Oregon Wineries' Websites and Facebook Pages</u> Sharon L. WAGNER and Lisa M. WEIDMAN
	16:30	SMon8	<u>Motives to adopt a social media communication strategy: the case of Bordeaux wine estates and merchants</u> Patrice MALKA, Hervé REMAUD and Florine LIVAT
	16:45		Discussion

Country of Origin/ Terroir II – H12			
Session Chair: Ulrich Orth			
Session 17	16:00	CoO5	<u>Evolution of the Branding of New Zealand Wine: From Country Image to Collective Industry and Market Meaning</u> Roderick J. BRODIE and Maureen BENSON-REA
	16:15	CoO6	<u>Experiencing a place and appreciating its wine: How does attitude toward place transfer to its products?</u> Albert STOECKL, Andreas B. EISINGERICH and Omar MERLO
	16:30	CoO7	<u>Handle "Country of Origin Effect" with Care: Lessons for Researchers and Managers</u> Kenneth R. DEANS, Carlos RODRIGUEZ and Christian FELZENSZTEIN
	16:45	CoO8	<u>How Do Signals Shape Wine Shoppers Value Perception?</u> Barry J. BABIN and Nina KREY
	17:00		Discussion

Tourism/ Events II – H13			
Session Chair: Blair Baldwin			
Session 18	16:00	TE06	<u>Four wine tourist profiles</u> Marlene PRATT
	16:15	TE07	<u>Wine tourism – an explorative study in the region Rheingau</u> Gergely SZOLNOKI, Solvig NOACK and Maximilian TAFEL
	16:30	TE08	<u>Who's here? An exploratory study of the characteristics and wine consumption behaviours of visitors at a New Zealand wine festival</u> Joanna FOUNTAIN
	16:45	TE09	<u>Wine Tasting a la Vending Machine: The case of Max Bordeaux</u> Kirk PLANGGER, Karen ROBSON, Leyland PITT and Colin CAMPBELL
	17:00		Discussion

Gala Dinner

The German Wine Market

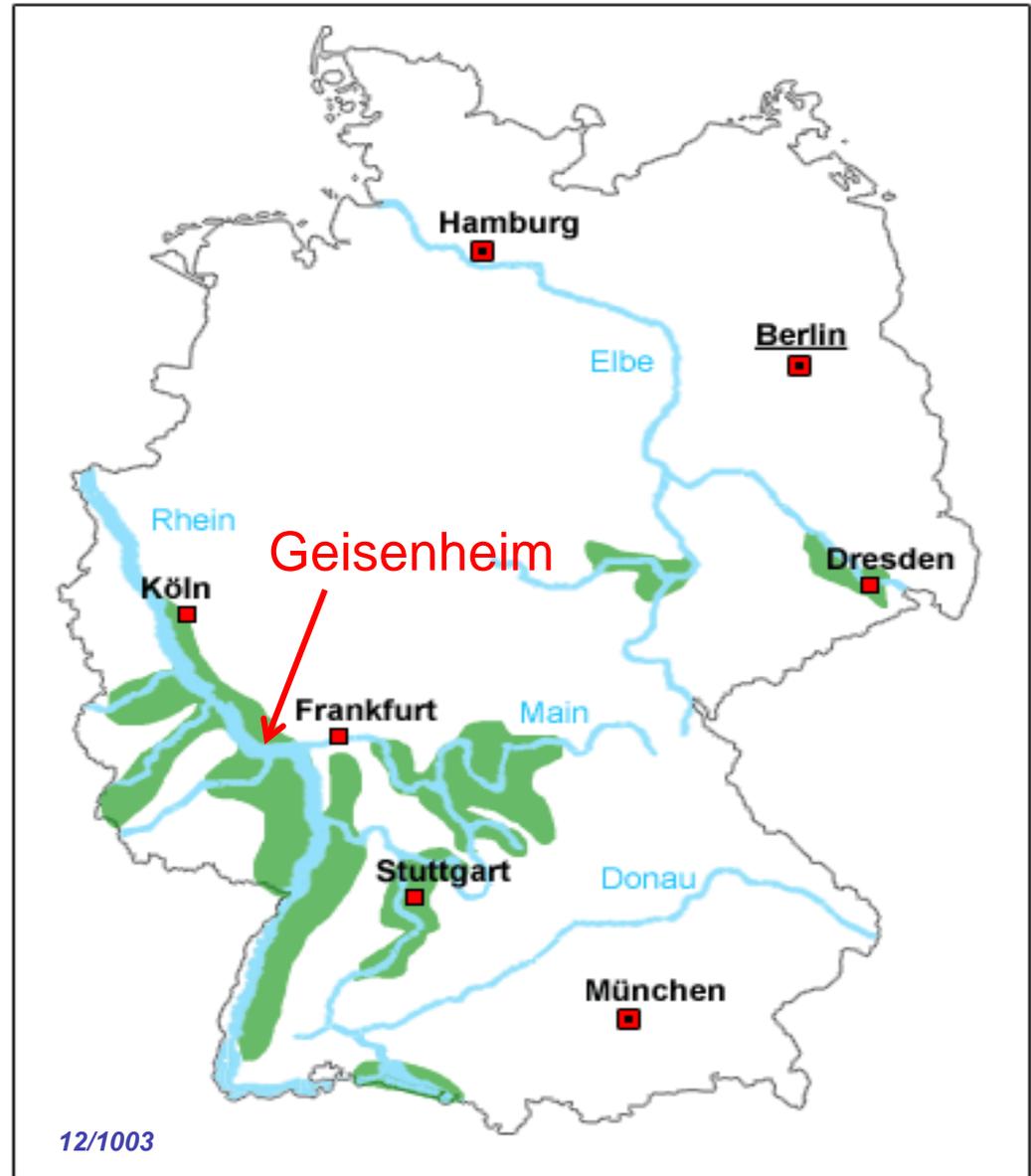
Prof. Dr. Dieter Hoffmann,

Geisenheim University, 2014

Agenda:

- Wine market
- Import
- Export
- Structure (production, bottling)
- Distribution
- Margins, costs
- Consumer behavior
- Summary

**location of
wine regions
in Germany**



Wine Market

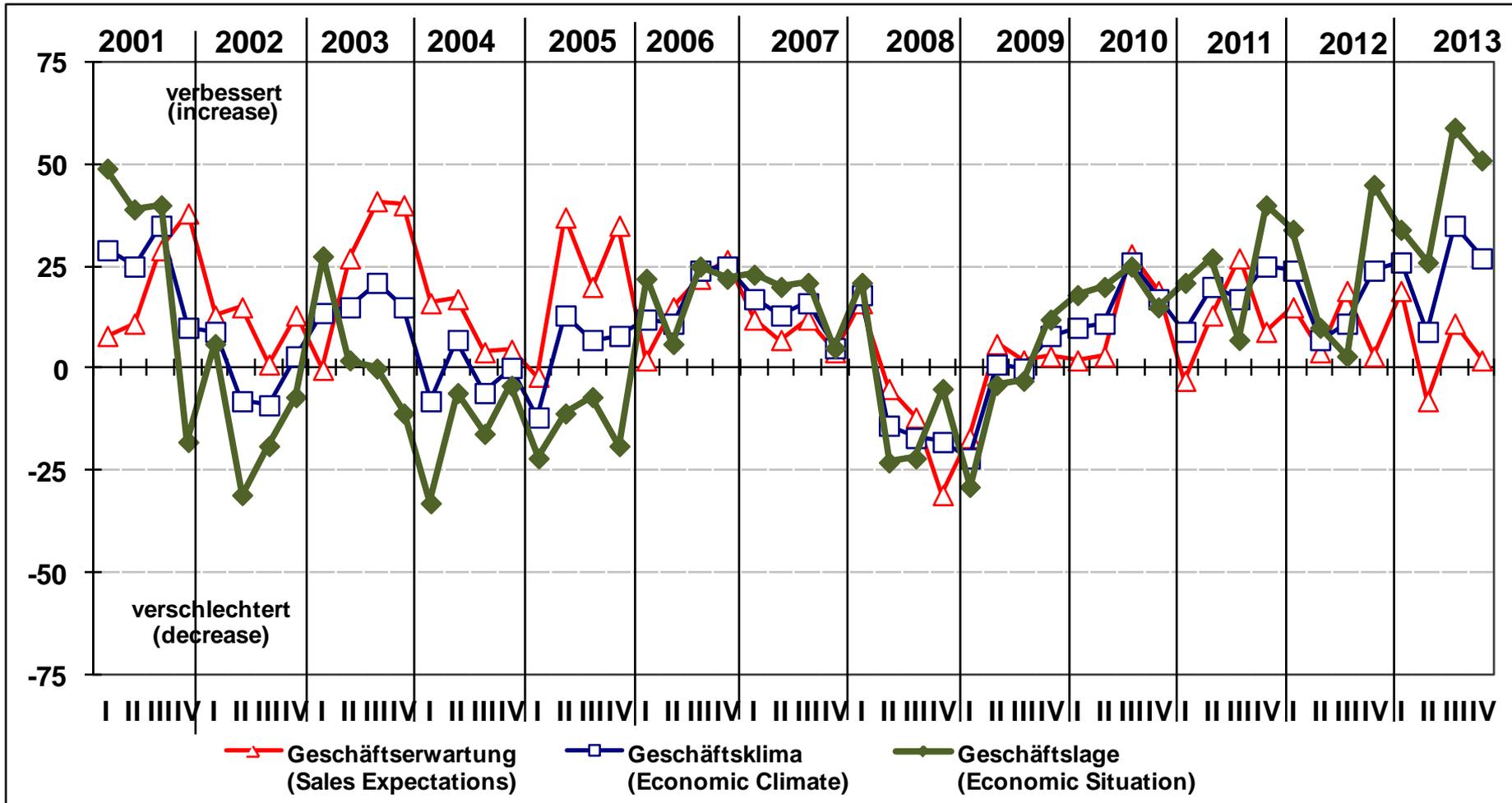
German wine market is ...

- Nr. 1 by imports 16 Mio. hl
- Nr. 1 by sparkling wine consumpt. 4 l / head
- Nr. 4 by total wine consumption 20 – 21 Mio. hl
- Nr. 10 by wine production 9,5 Mio. hl
- turnover retail level 7,0 Bill. €

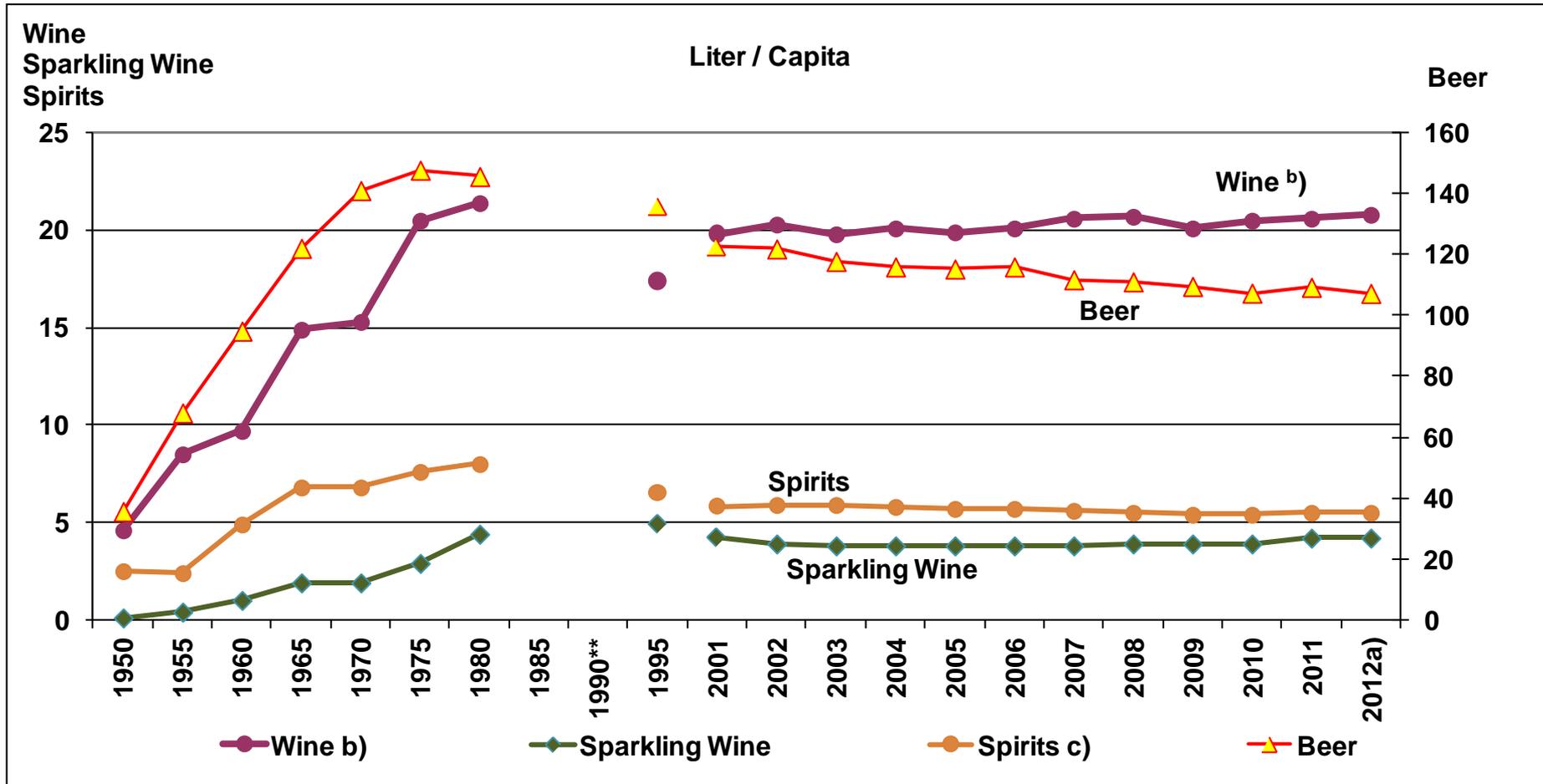
No wine tax (= EU wine tax: 0), only VAT,
no limitation on trade: **liberal**

Economic situation in the German wine business

... change to the previous year, Saldo +/- in %,
Questionnaire from 150-200 companies, 1,5-1,8 Bill. €



Consumption of alcoholic beverages in Germany



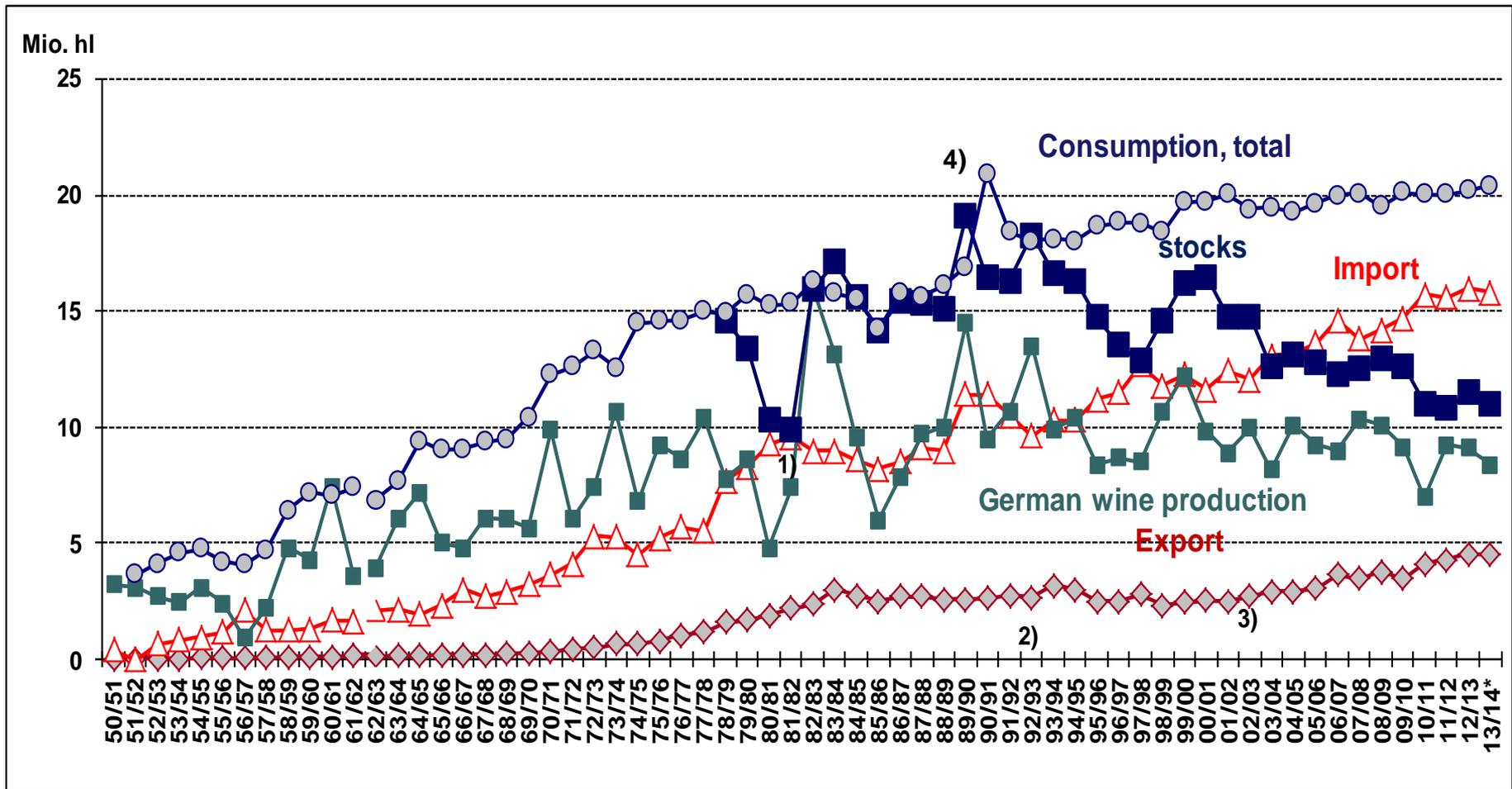
*) Vorläufig, a) Schätzung. - b) Einschl. Wermut- und Kräuterwein (ohne Schaumwein); c) einschl. Spirituosen-Mischgetränke

** bis 1990 nur BRD, ab 1995 Deutschland gesamt,

Source: ifo Institut und M. Breitenacher (auf der Grundlage von Daten der Branchenverbände).

Wine- and sparkling wine market (total) in Germany

Wine Production , Stocks, Export, Import, Consumption in Mio. hl

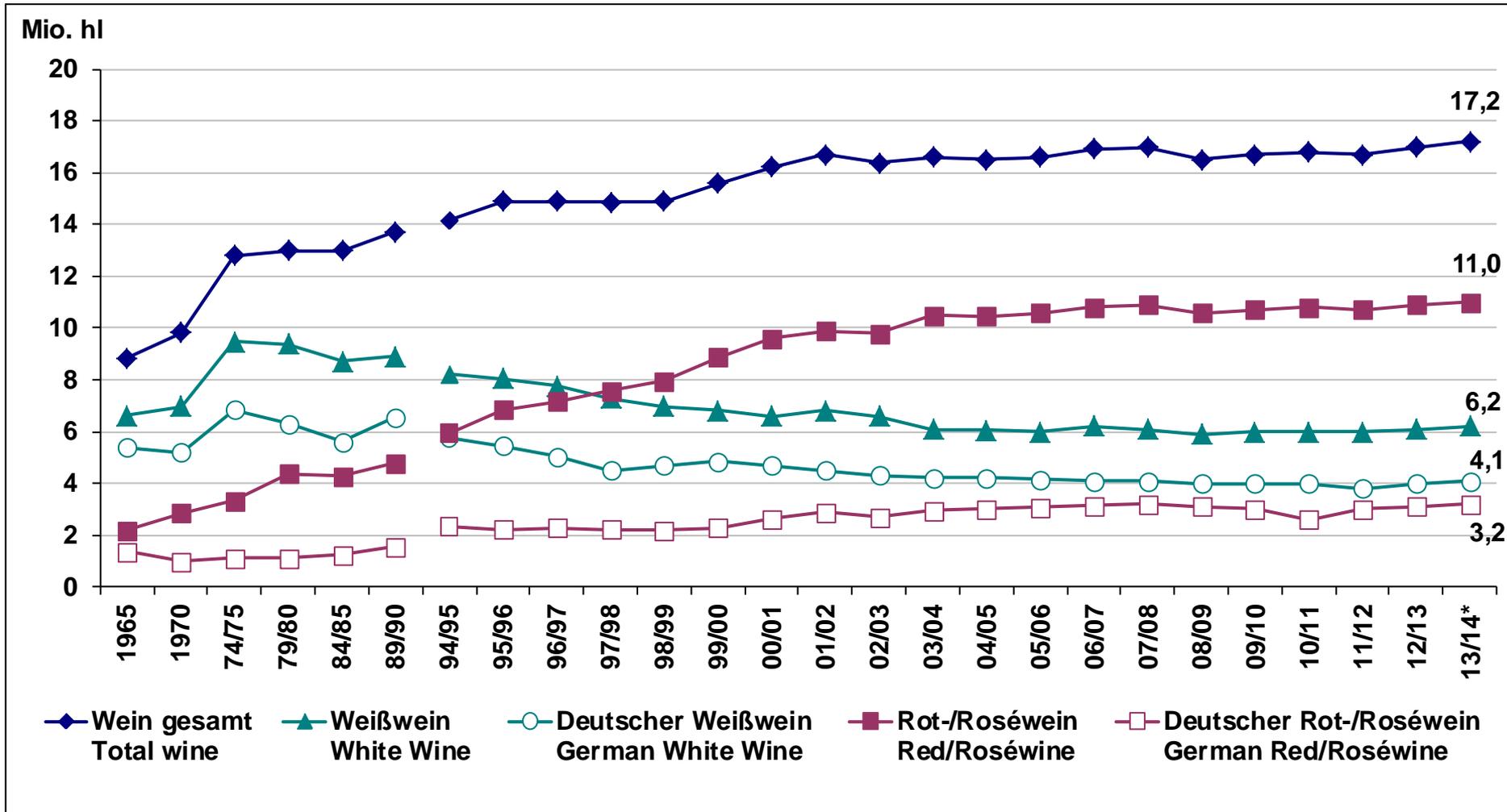


1) Wirtschaftsjahre 1.9. – 31.8.; 2) ab 1990/ einschl. der neuen Bundesländer; 3) ab der Periode 00/01 erstreckt sich das Wirtschaftsjahr vom 1.8. bis 31.7. , 4) Umstellungseffekt durch Einführung des Binnenmarktes

Source: Weinmarktbericht des Deutschen Weinbauverbandes und des Statistischen Bundesamtes, * estimation

Still wine consumption

by color and origin



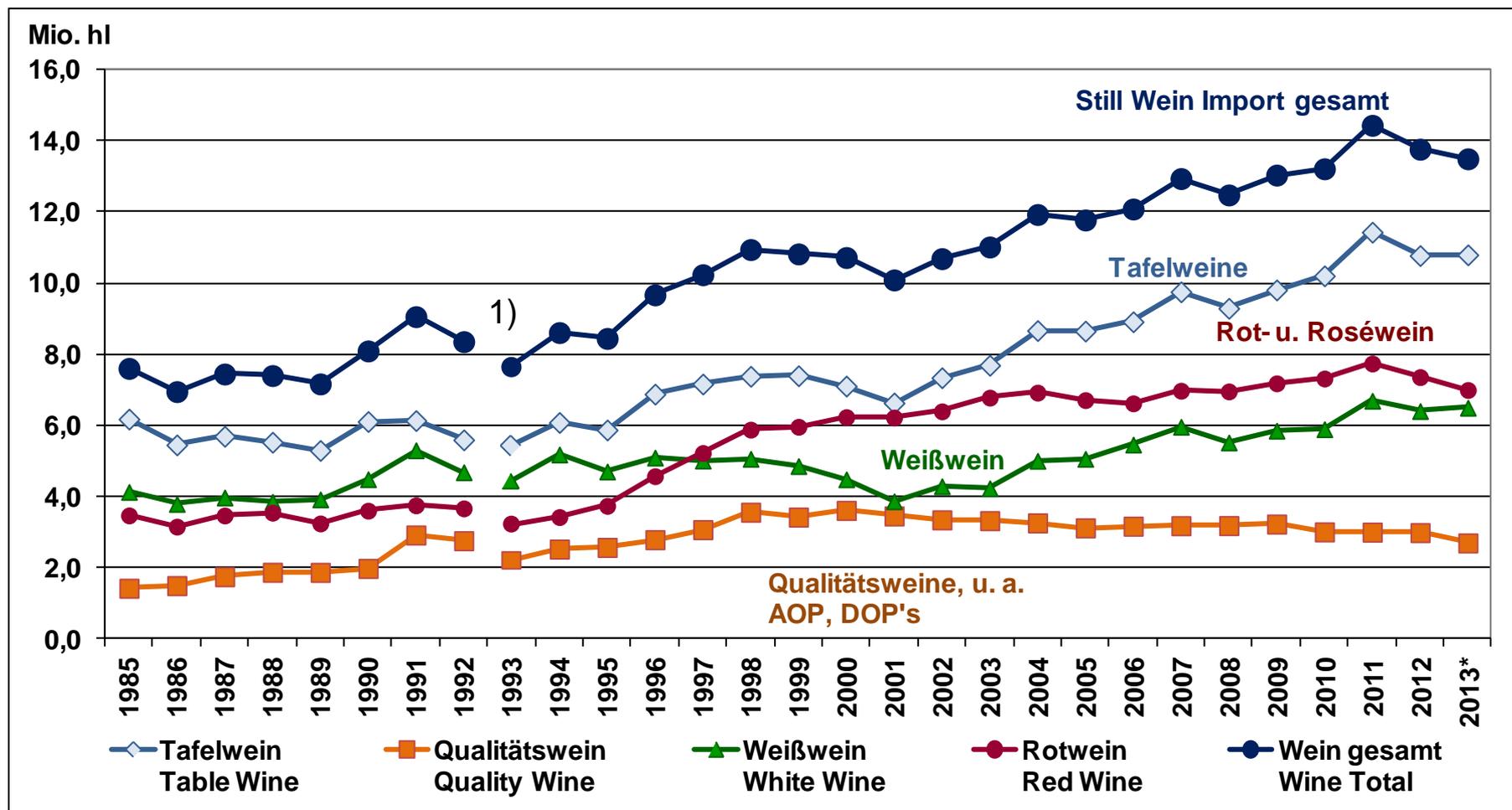
1) bis 1990 BRD, ab 1994/95 Deutschland gesamt,

18/1003

Source: eigene Berechnungen und Daten der Weinmarktbalanz des Deutschen Weinbauverbandes und * Schätzung

Import of wine to Germany

Wine import to Germany: categories (Volume)

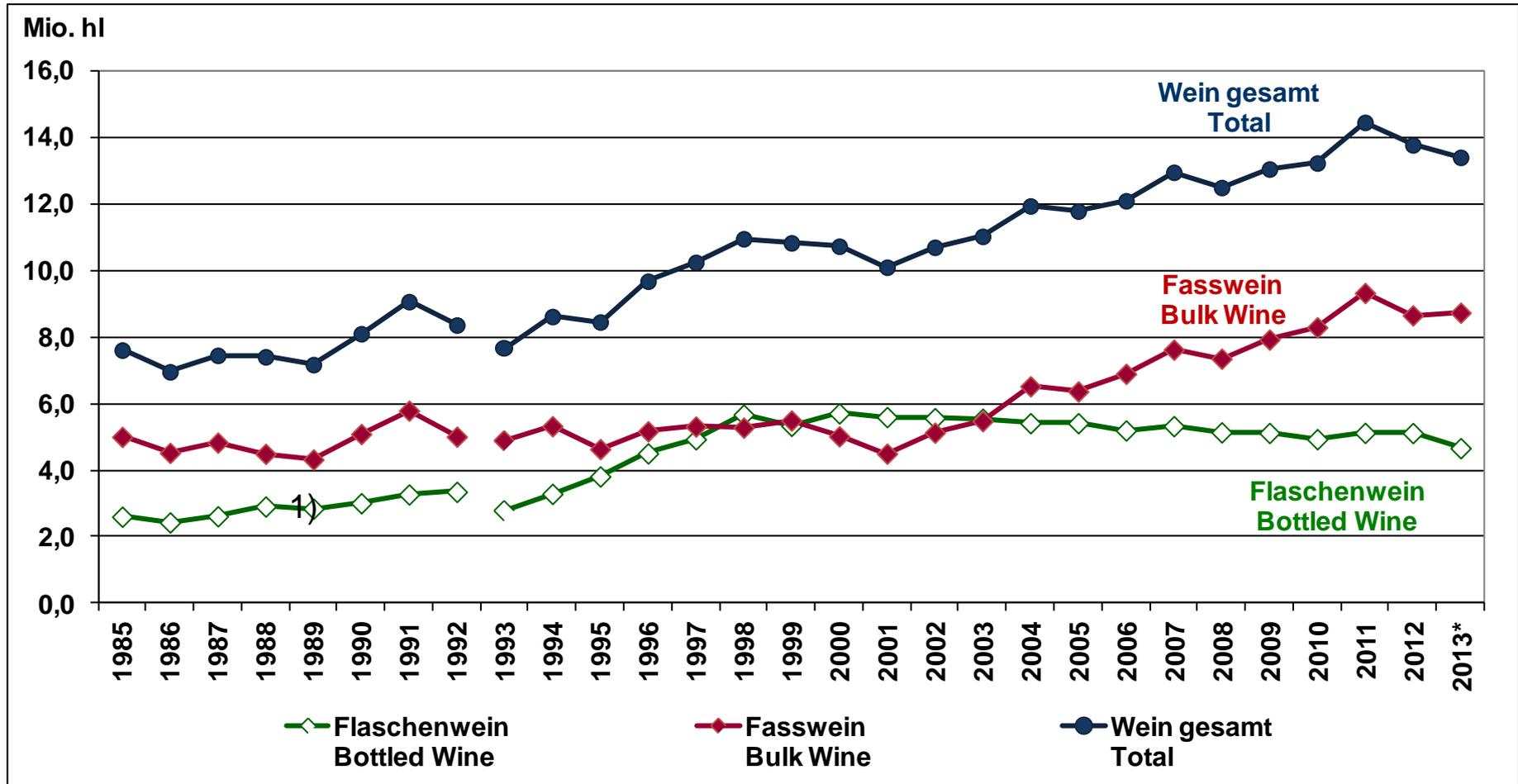


1) Umstellungseffekt der statistischen Erfassung durch den Wegfall der Importformalitäten an den Grenzen (nach Einführung des Binnenmarktes).

20/1003

Source: Statistisches Bundesamt, Außenhandel, Fachserie 7 und * Schätzungen

Wine import to Germany: (Volume) in bottles and bulk

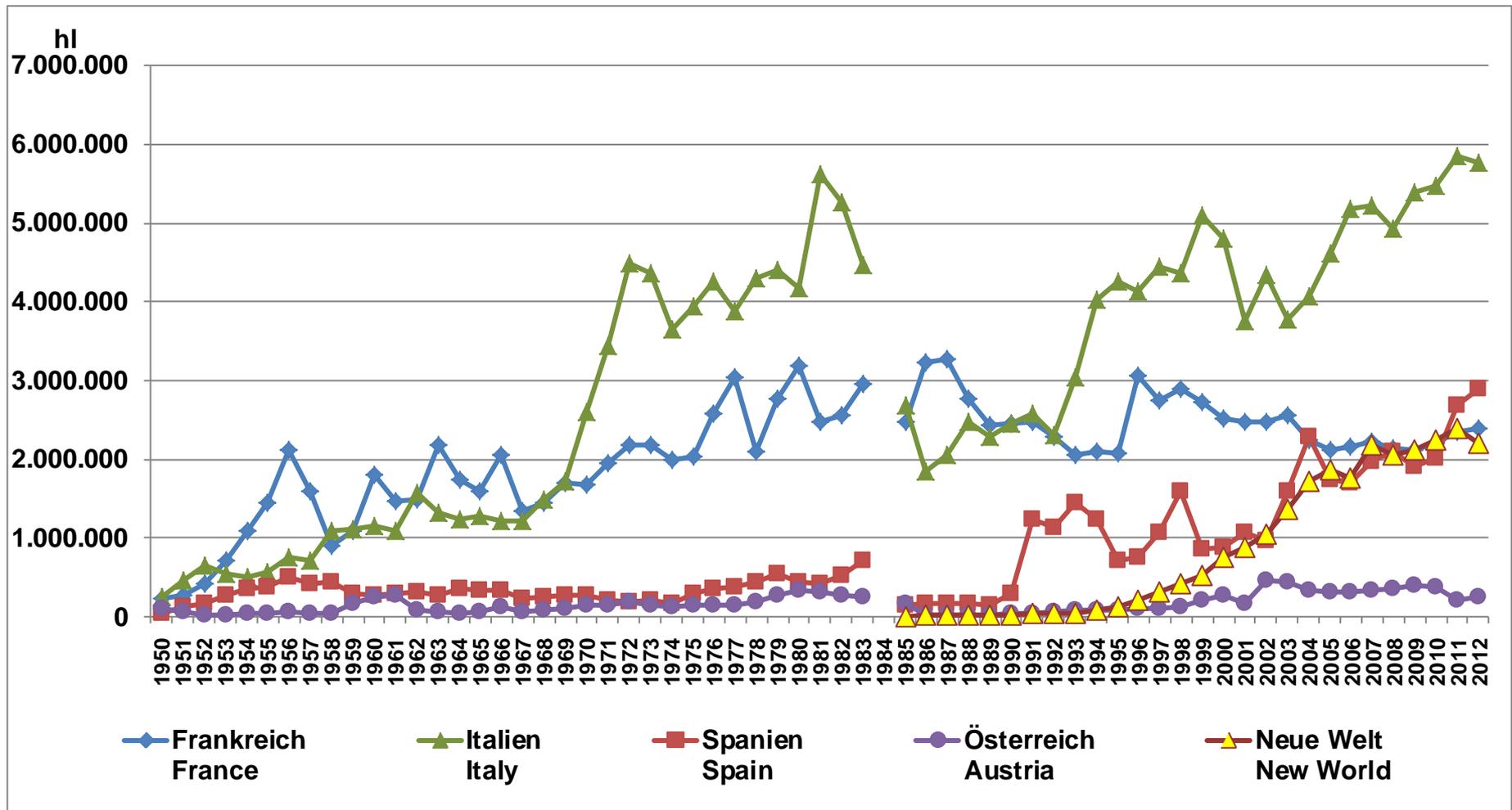


1) Umstellungseffekt der statistischen Erfassung durch den Wegfall der Importformalitäten an den Grenzen (nach Einführung des Binnenmarktes).

21/1003

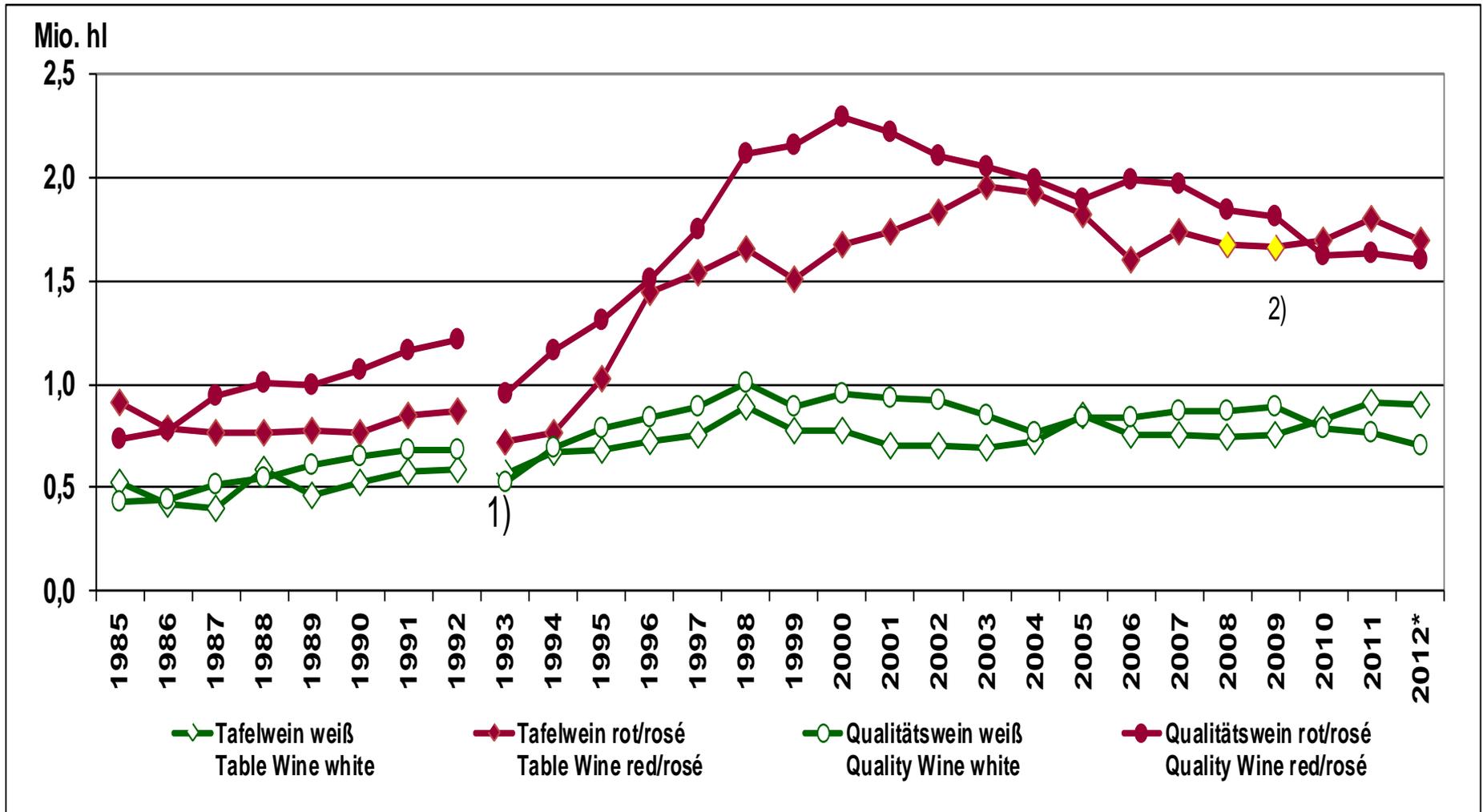
Source: Statistisches Bundesamt, Außenhandel, Fachserie 7 und * Schätzungen

Wine import to Germany: countries (volume)



Source: Quelle: Statistisches Bundesamt, Außenhandel, Fachserie 7

Import of bottled wines to Germany (volume)

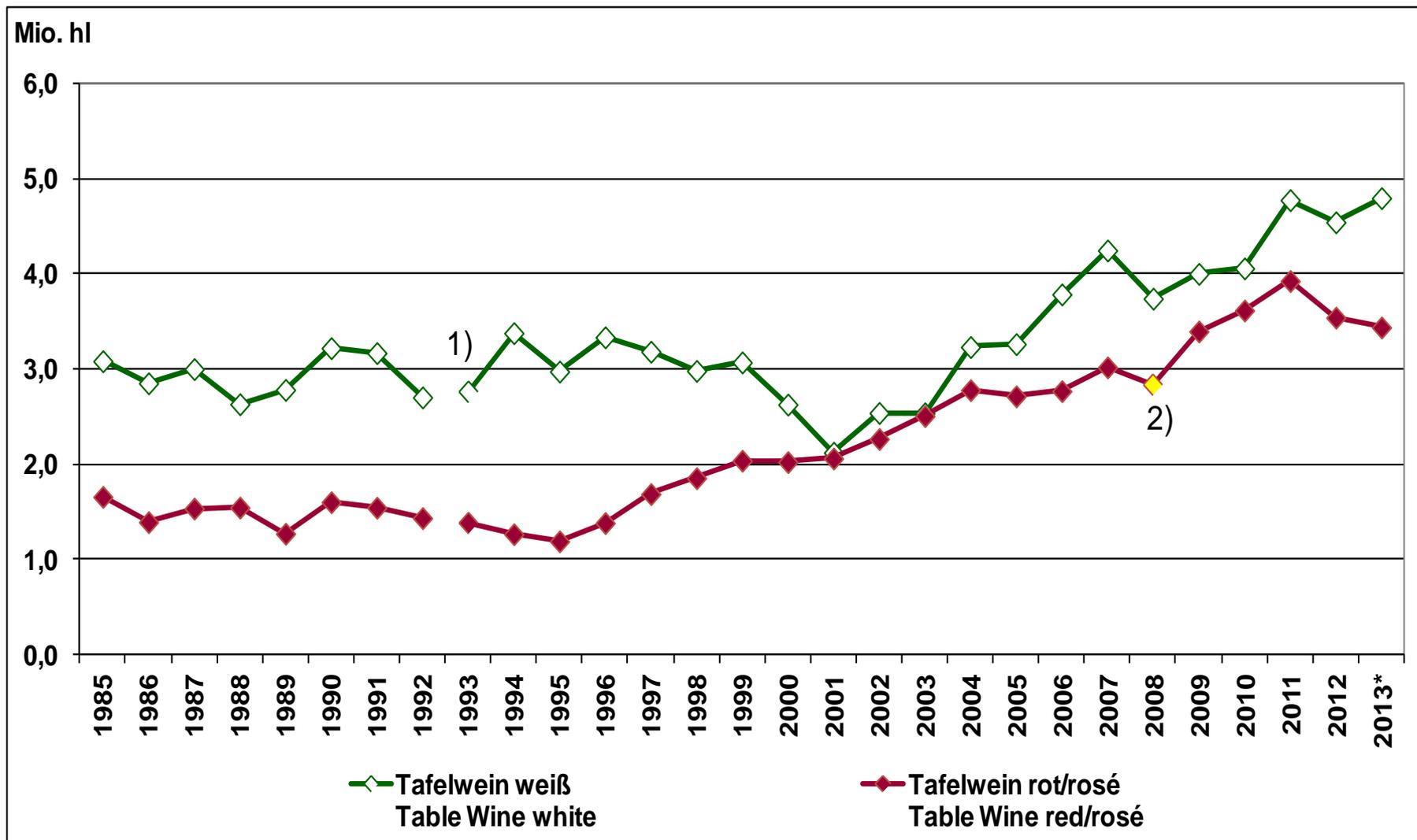


1) Umstellungseffekt der statistischen Erfassung durch den Wegfall der Importformalitäten an den Grenzen (Einführung des Binnenmarktes).

2) geschätzter Wert aufgrund erforderlicher Korrekturen wegen falscher Zuordnung bei Meldungen.

Source: Statistisches Bundesamt, Außenhandel, Fachserie 7, * Schätzungen

Import of bulk wines to Germany (volume)



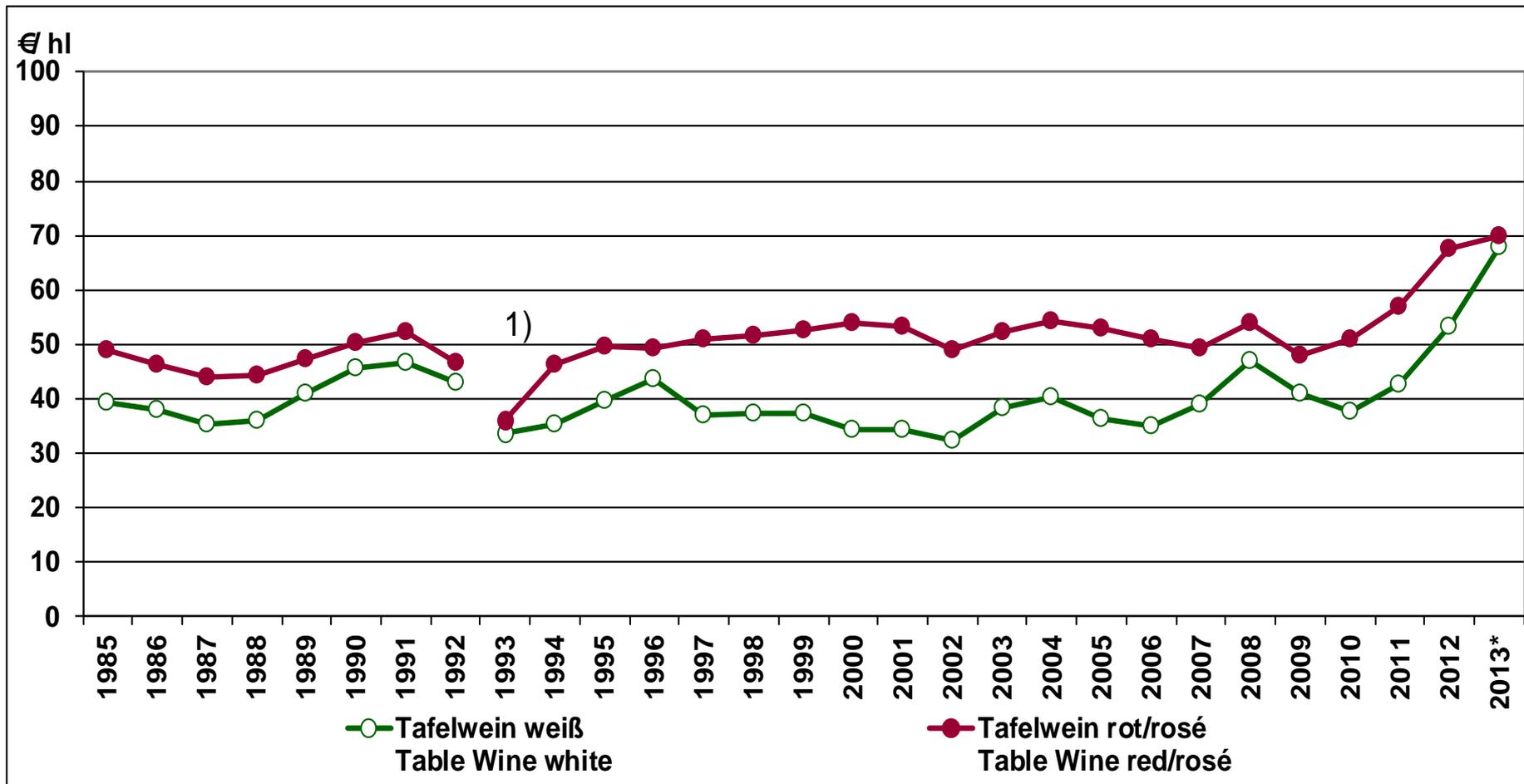
1) Umstellungseffekt der statistischen Erfassung durch den Wegfall der Importformalitäten an den Grenzen (Einführung des Binnenmarktes).

24/1003

2) geschätzter Wert aufgrund erforderlicher Korrekturen wegen falscher Zuordnung bei Meldungen.

Source: Statistisches Bundesamt, Außenhandel, Fachserie 7; * estimation

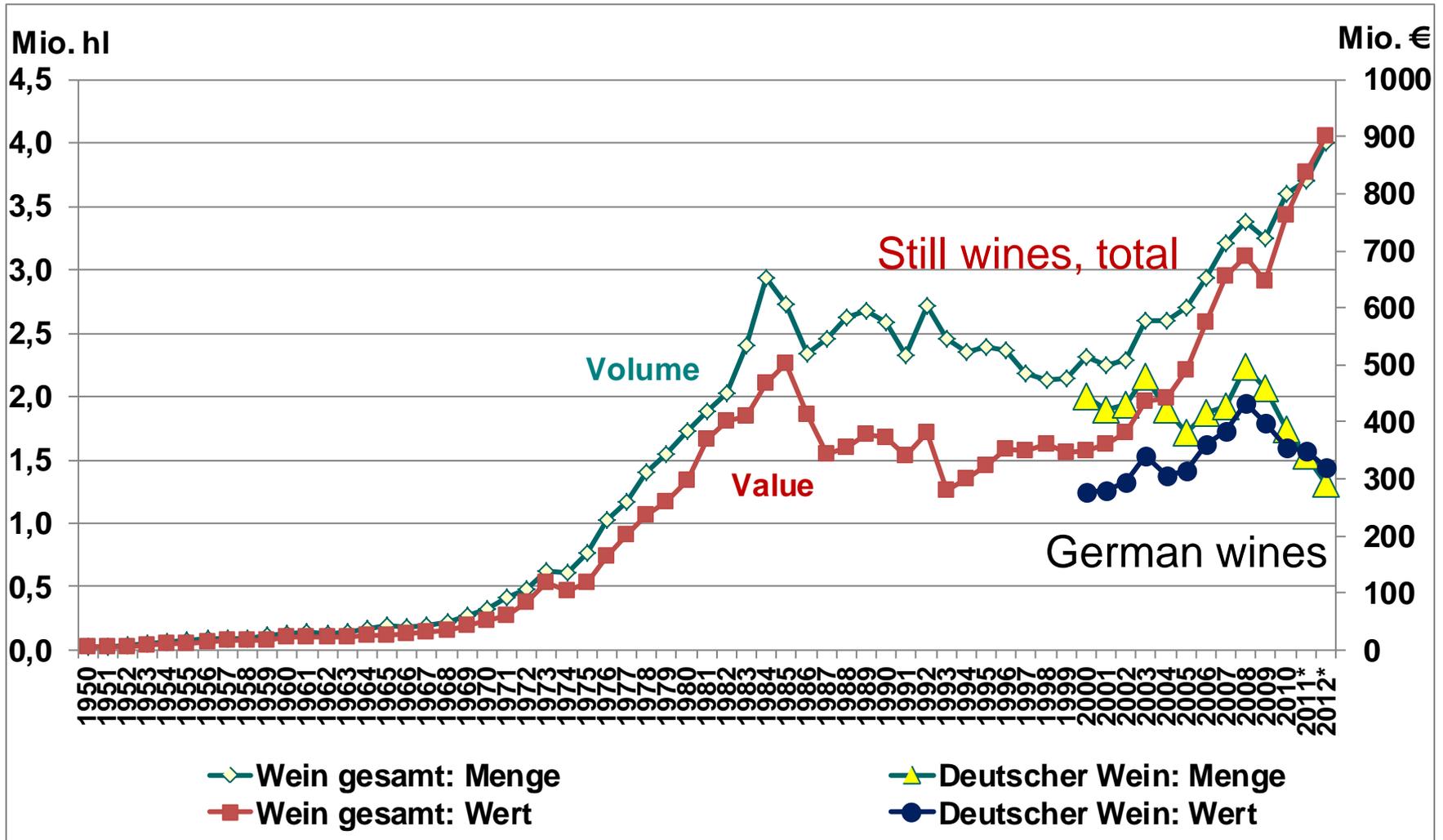
Import of bulk wines to Germany (value/l)



1) Umstellungseffekt der statistischen Erfassung durch den Wegfall der Importformalitäten an den Grenzen (Einführung des Binnenmarktes).

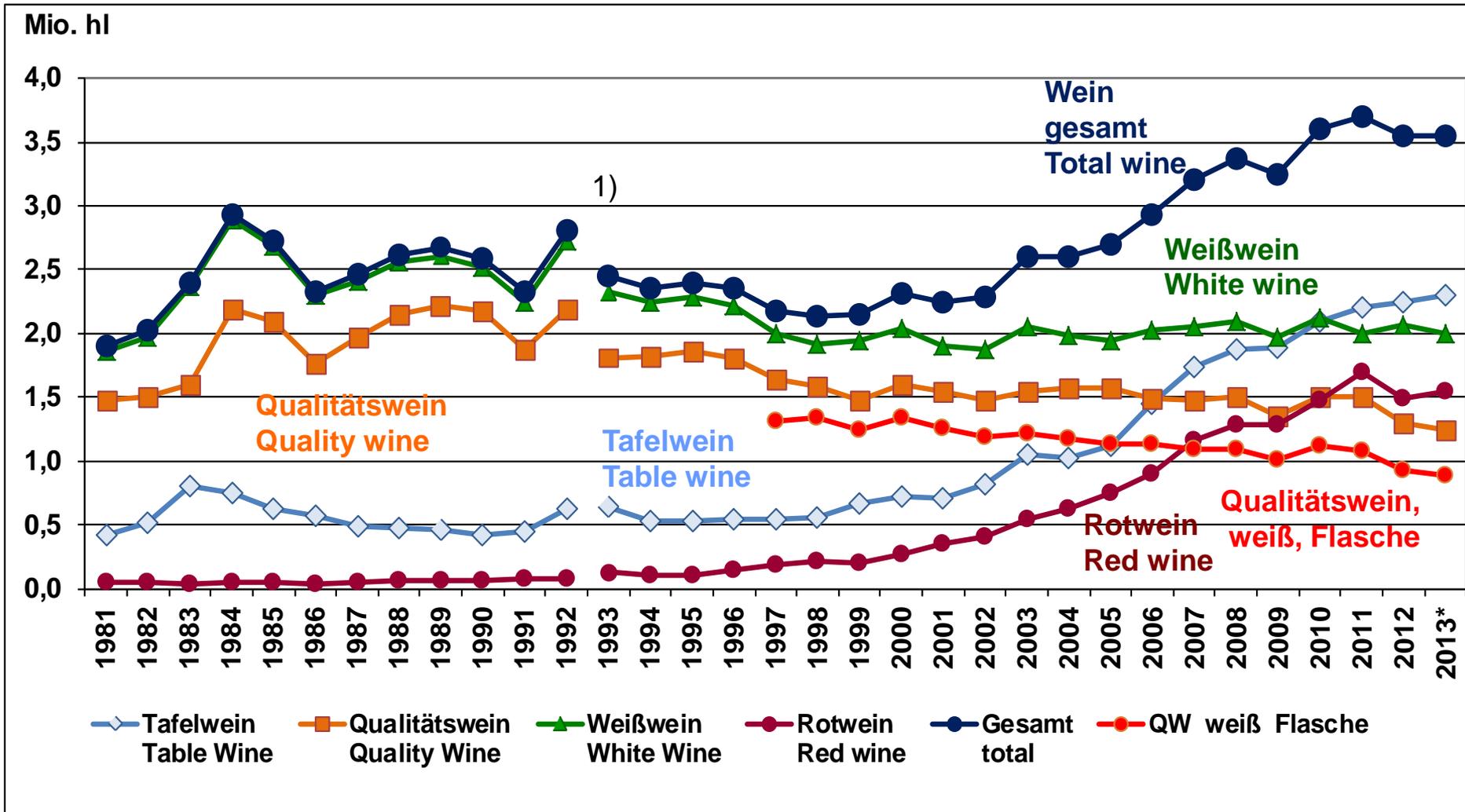
Export of wine from Germany

Export of wine from Germany (Volume und Value)



Source: Statistisches Bundesamt, Außenhandel, Fachserie 7 und * vorläufige Daten

Wine export from Germany (volume)



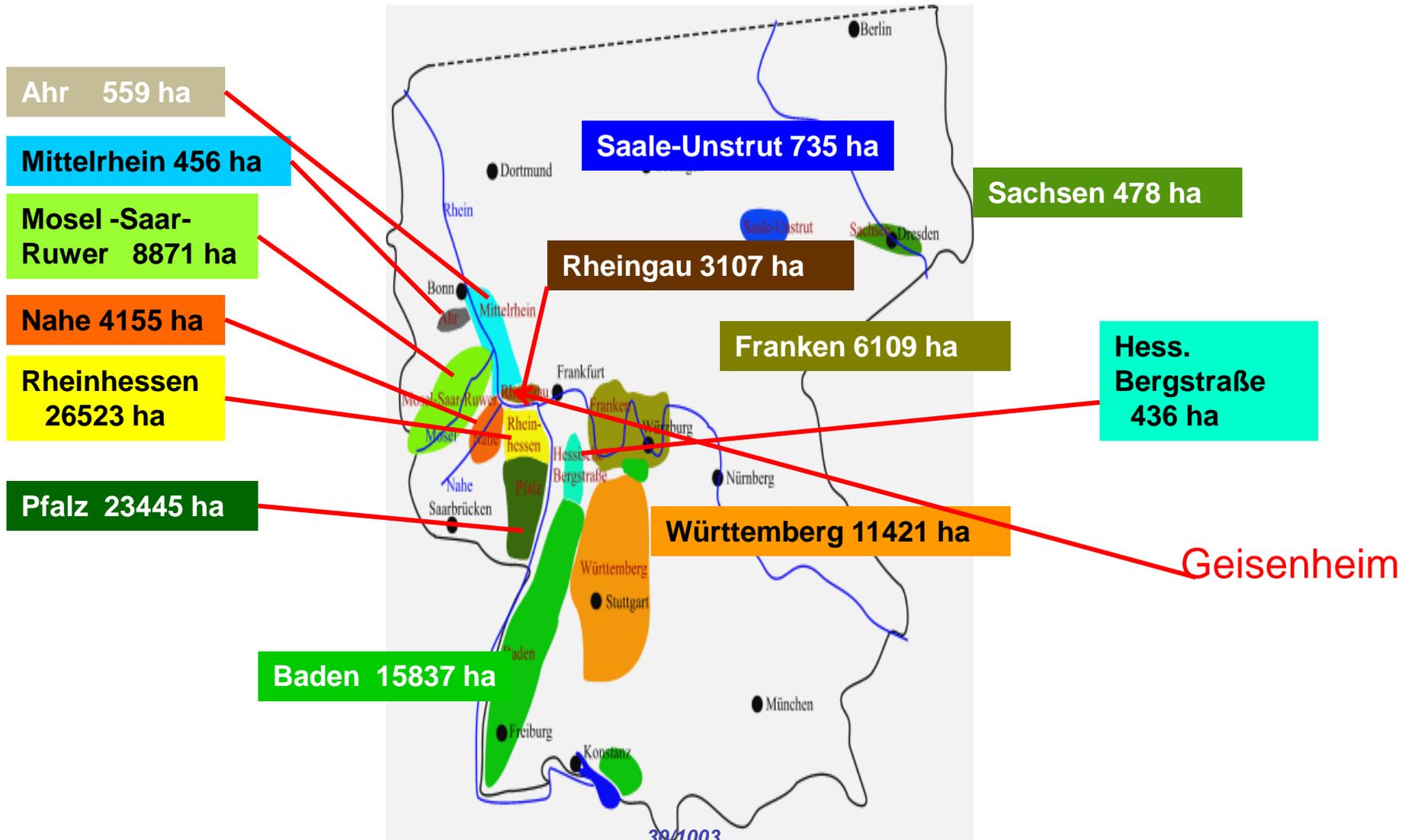
(nach Einführung des Binnenmarktes).

Source: Statistisches Bundesamt, Außenhandel, Fachserie 7 und * estimation

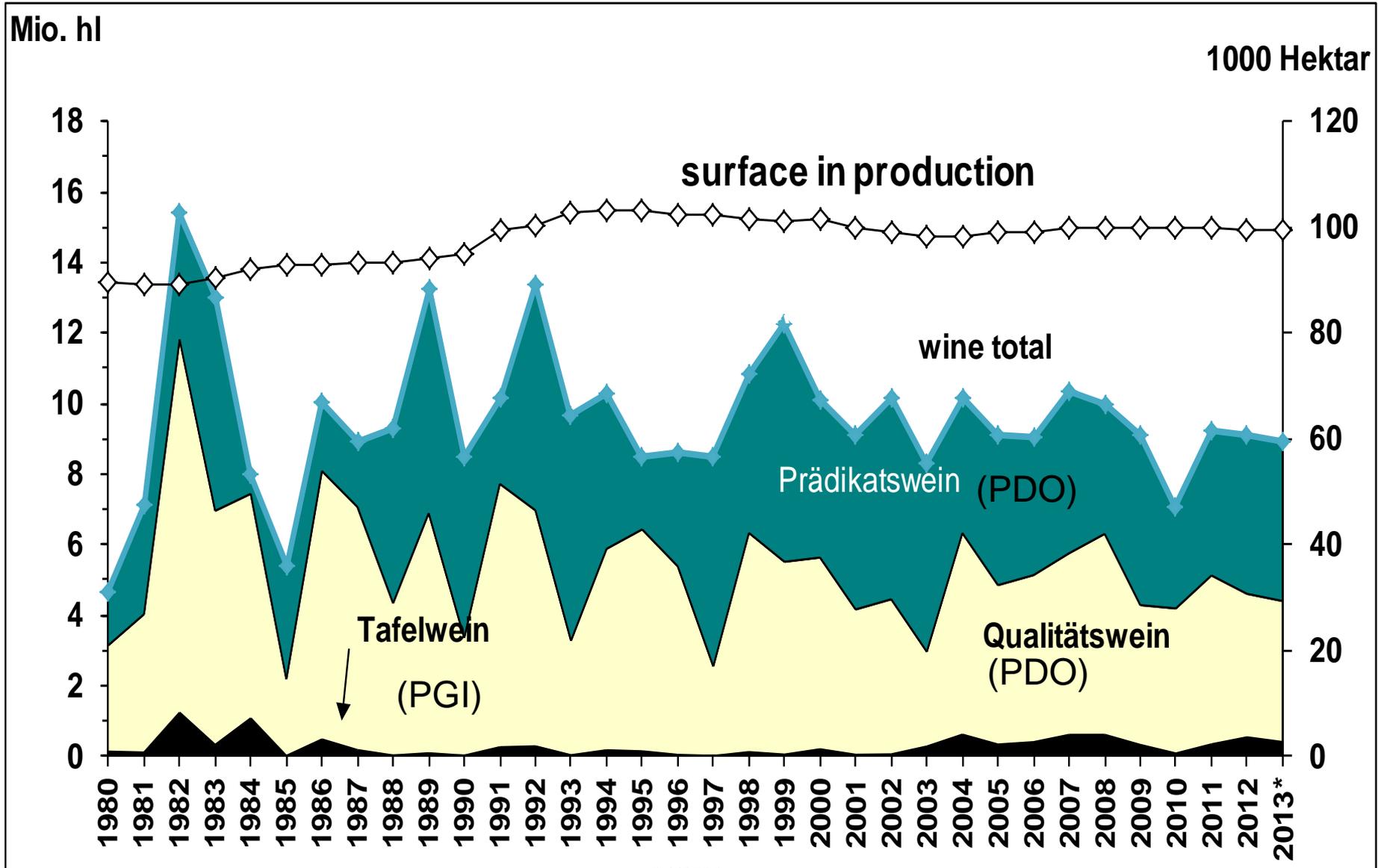
Structure of the wine industry in Germany

Wine regions in Germany:

total acreage under vine (in ha) 102 200

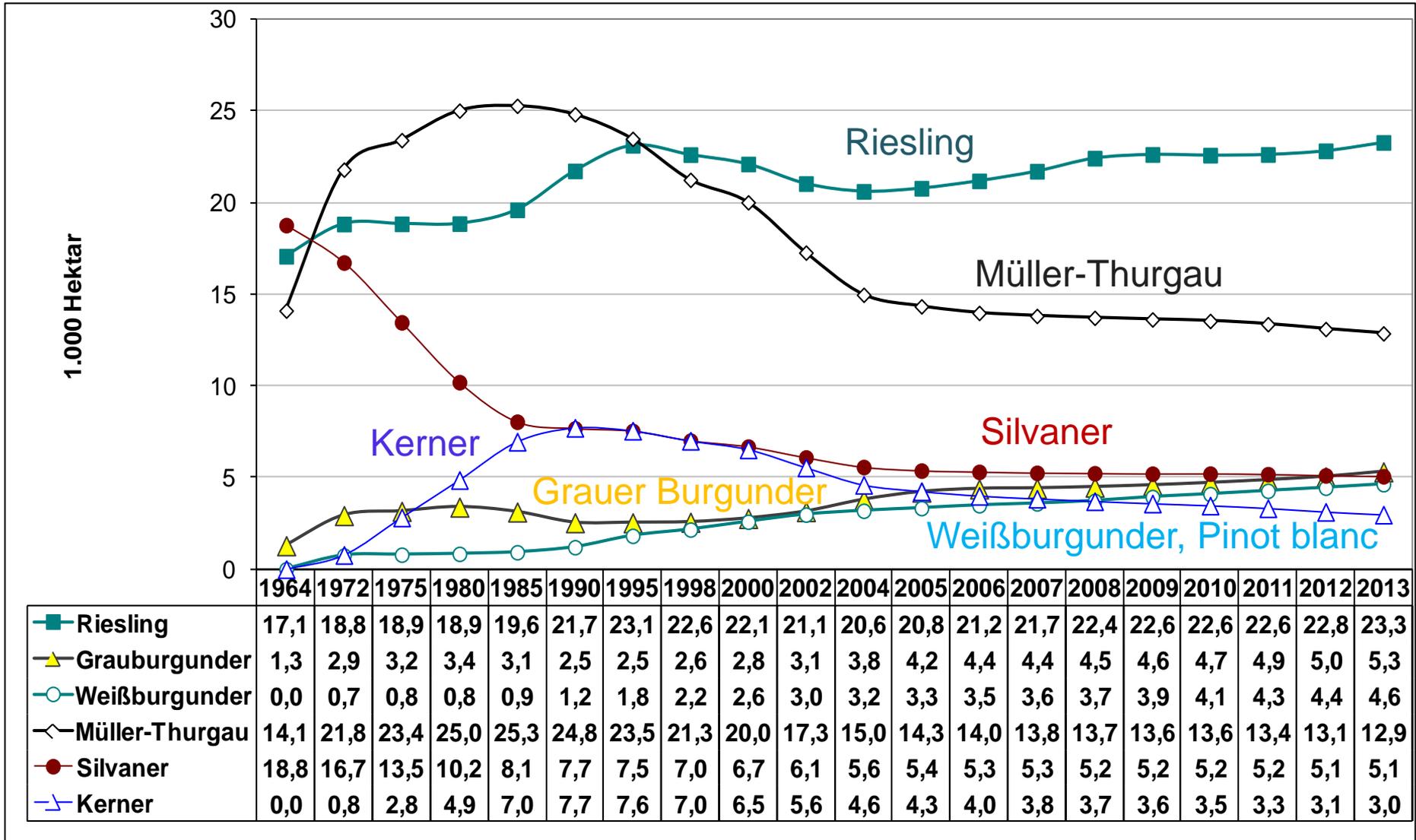


Key figures of the wine production

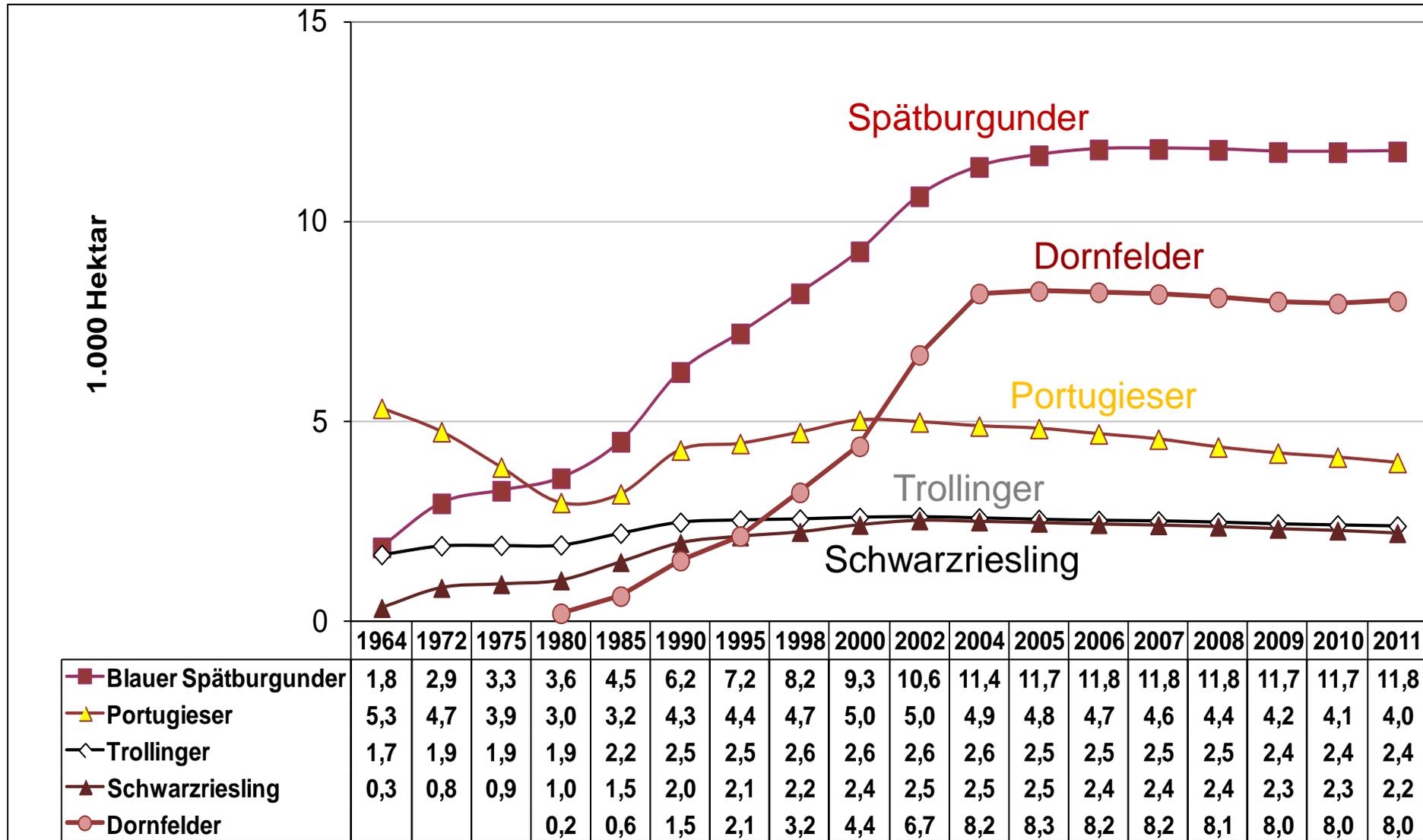


31/1003

Development of the cultivated grape surface for white wine varieties in Germany



Development of the cultivated grape surface for red wine varieties in Germany



Structure of the wine production in Germany

Cultivated Grape Area : 98 000 ha in production
Wine Production (2013) : 9.2 Mio. hl on Average (2010: 6.9)
Wine Growers : 26.000 > 0.3 ha (+ 30 000 < 0.3 ha)

Wine Cooperatives

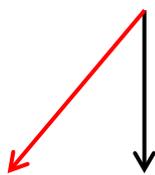
(With own vinification and bottling)

Number: 111
Members: ca. 49 000

Surface under vine: 32 000 ha

Production: 2.8 Mio. hl

Sales (Mio. hl):



Bulk wines 0.4
Bottled Wines 2.4

Wine Growers with Bulk Wine

Number: ca. 10 000

Surface under vine: 36 000 ha

Production: ca. 3.4 Mio. hl

Sales (Mio. hl):



Bulk wines 3.4

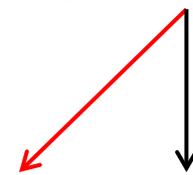
Wine Estates Selling Bottled Wines

Number: ca. 8 000

Surface under vine: ca. 30 000 ha

Production: 3.0 Mio. hl

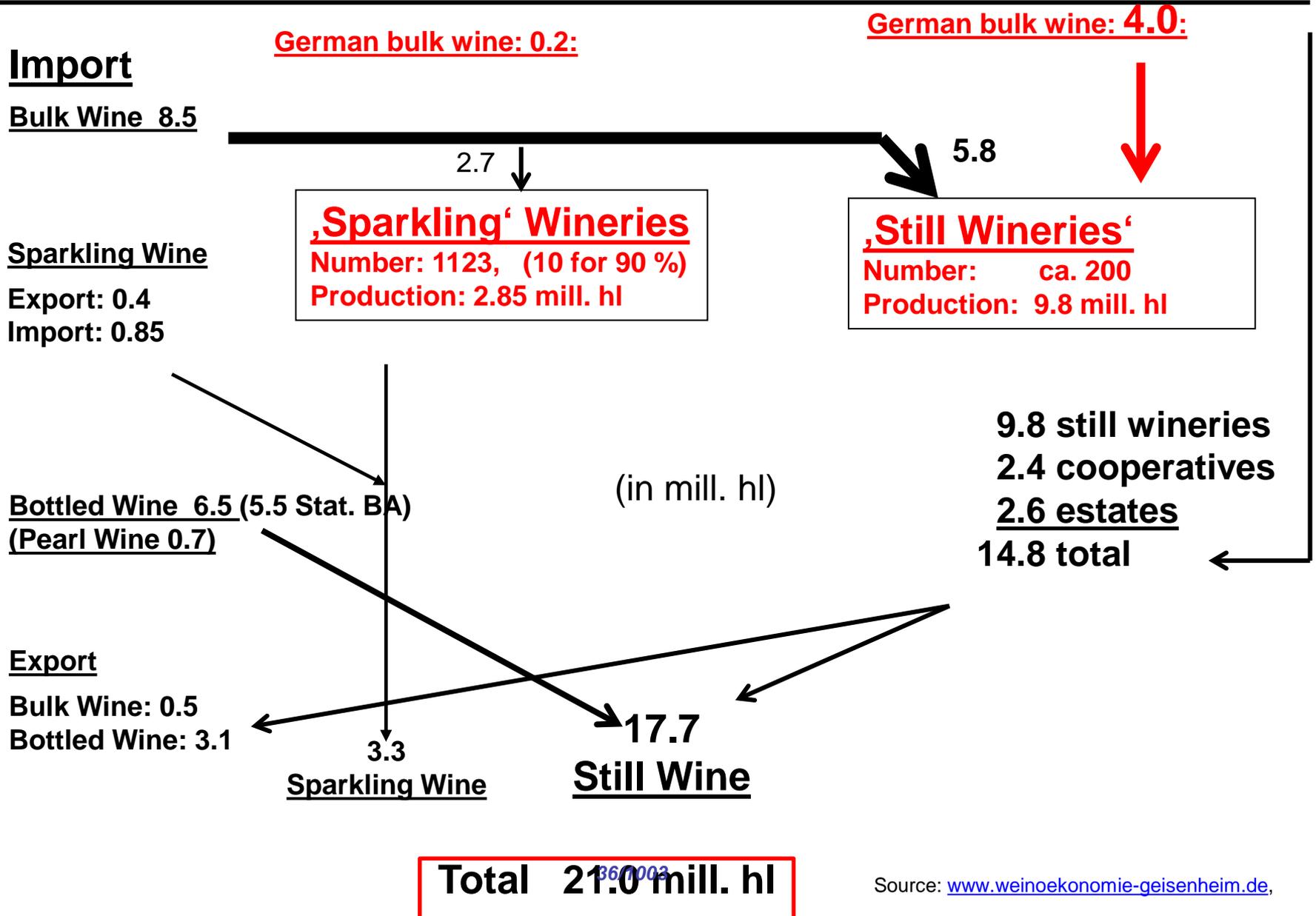
Sales (Mio. hl):



Bulk wines 0.4
Bottled Wines 2.6

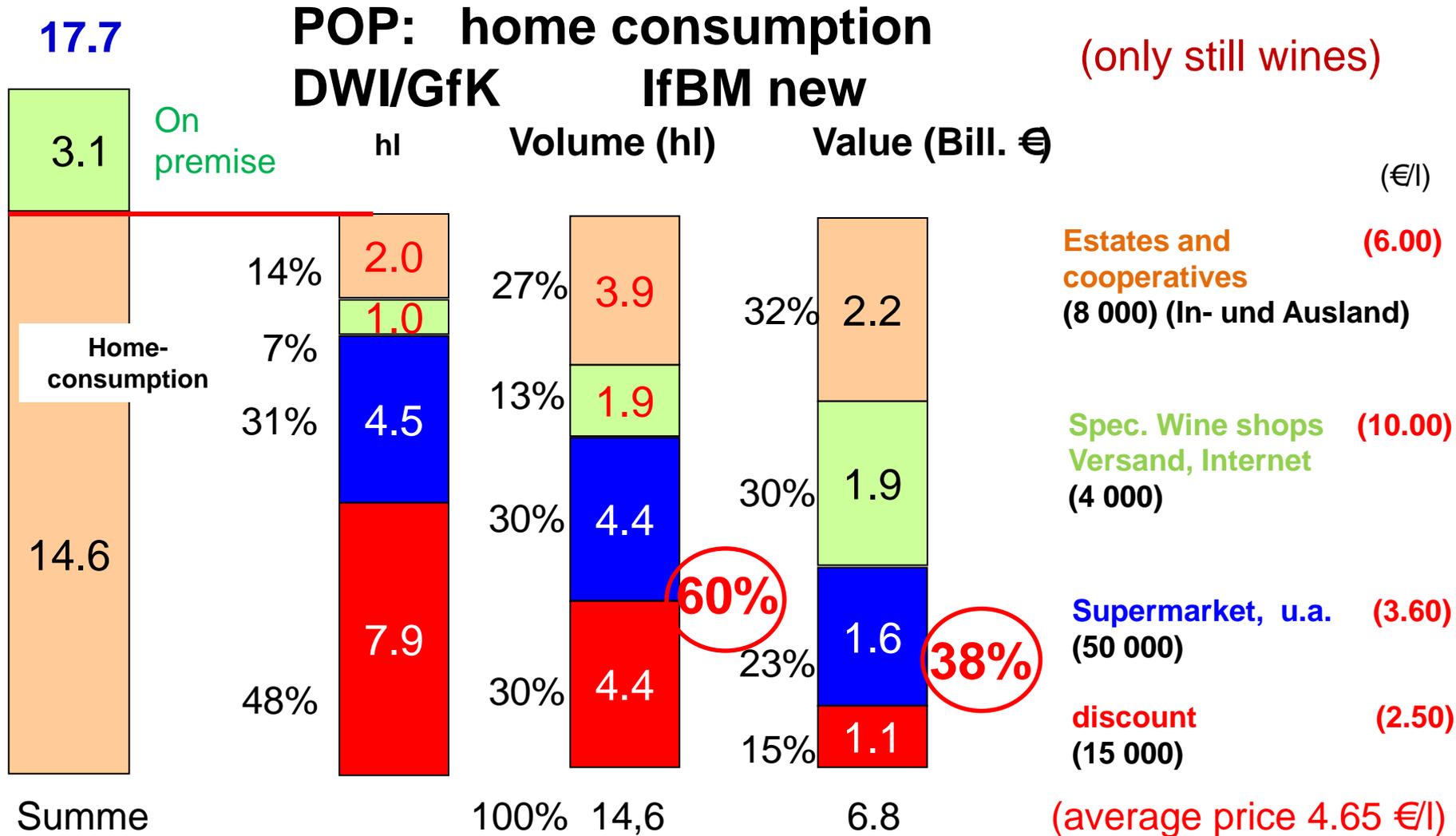
Distribution of wine in Germany

Structure of wine bottling in Germany



POP structure of the German wine market 2013

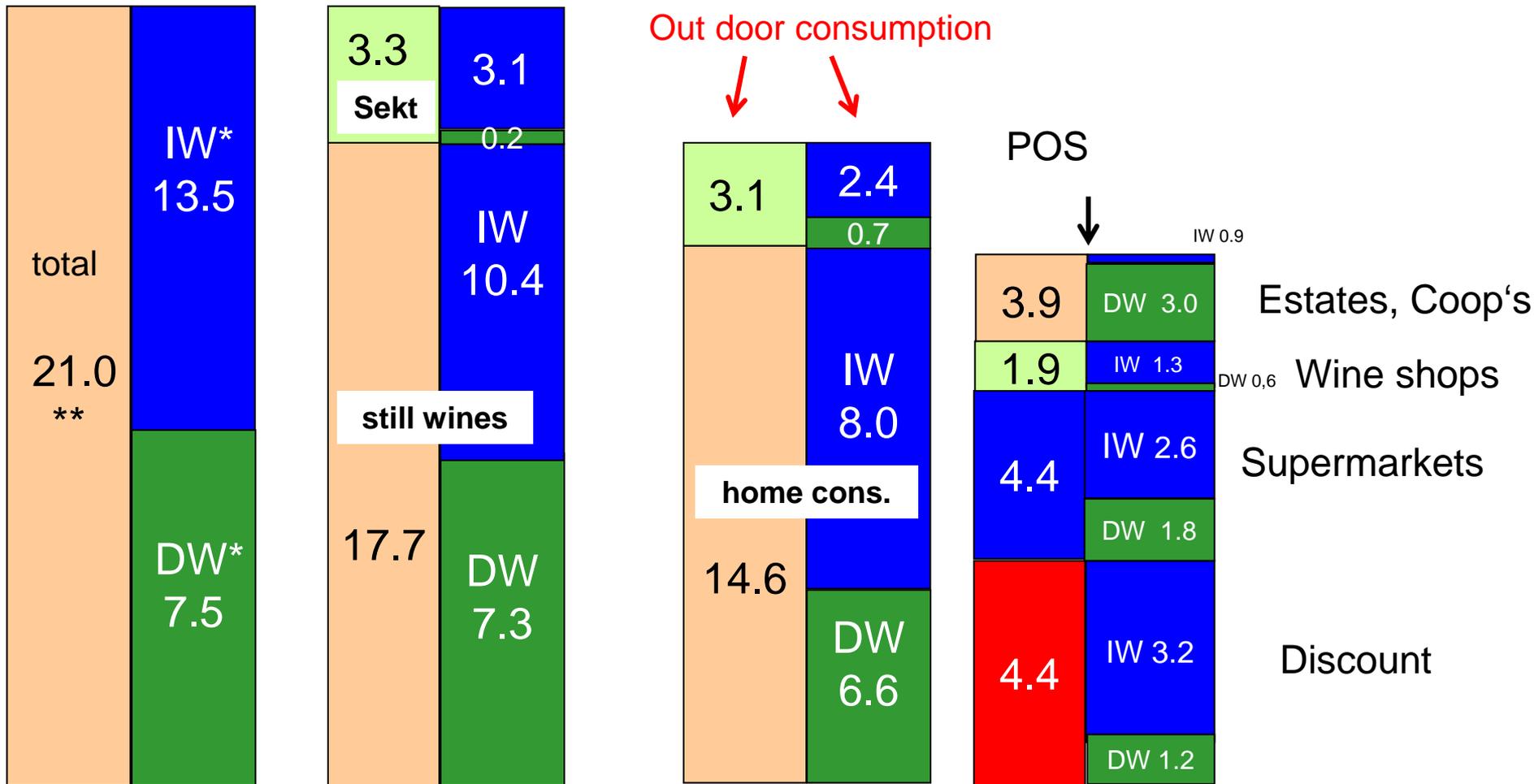
(Volume in Mill. hl, (%), Value in Bill. €)



Source: DWI / GfK (2014) and G. Szolnoki, D. Hoffmann (2014)

Neue Weinkunden-Segmentierung, Geisenheim

German and imported Wines 2013 in the German wine market (in mill. hl)



• IW = imported wines, DW = German wines ** estimated total consumption, incl. not official reported private imports

Structure of the wine trade in Germany

- 14 000 discounters
- 10 500 super / hypermarkets
- 4 000 wine shops; 70 % individuals
- 50 000 restaurants with wine, 90 % individuals
- 8 000 wine estates (direct marketing)
- 111 wine cooperatives (direct marketing)
- Large number of offers by (e)-mail services (internet)

Margins and costs in Germany

Margins in the wine trade in Germany

- Discounter 10-20 % of the retail price
- Super / Hypermarkets 25-35 % of the retail price
- Wine shops 35-50 % of the retail price
- Restaurants 70-80 % of the rest. price
- Whole saler 15-25 % of wholes. price
- Agents 2-20 % of price

German wine drinkers ...

- are open-minded about the origin of wines,
- are surfing through the offers on the shelf,
- make their choice first by taste,
- are price-sensitive, but not price-fixed,
- choose their P.o.P. depending on occasions
- love wine drinking.

Summary:

the German wine market is ...

- highly attractive because of increasing demand,
- very competitive on quality, price and promotion,
- very complex through a large diversity of channels,
- open-minded about wines from all over the world,
- free of wine- and other taxes, excl. 19 % VAT,
- strictly quality-managed.

Summary:

- Wine market is still growing
- German wines compete with cheap bulk wines from all over the world
- German whites and reds are on success
- The premium market (≥ 5 € a.m.) accounts for 40 % of volume and 62 % of value !
- The German wine market is very dynamic !!!

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A Theoretical Framework to Measure the Success of M&A Activities Among German Winegrowers' Cooperatives

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Abstract:

The objective of this paper is to develop a framework for measuring the success of mergers and acquisitions amongst German winegrowers' cooperatives. To this end the unique characteristics of winegrowers' cooperatives are identified and existing frameworks of performance studies in other sectors and within different legal entities are analyzed. On this basis a new framework suitable to winegrowers' cooperatives is developed.

The analysis shows that there are two main indicators to measure success: Grape payments and reserves built up by the net income. Both reflect the objectives of winegrowers' cooperatives and therefore are the main indicators for success of M&A activity. Net income as stated in the annual report is not a suitable indicator for measuring profitability as it is distorted by grape payment. To gain a more comprehensive insight into the effects of mergers the two indicators should be augmented by taking into account other indicators, like cash flow, return on sales and market share. Because net income is not a suitable indicator, the profitability indicators should be calculated with the net income before grape payment. This method will display a more accurate picture of the market success of the cooperative.

Keywords: cooperatives, wine, performance study, mergers & acquisitions

1. DEVELOPMENT AND STRUCTURE IN THE GERMAN WINE INDUSTRY

During the last 30 years the structure of the German wine industry has changed substantially. The number of wine producing companies in 2009 was only half of what it was 30 years earlier. Since 1979 the number of enterprises declined steadily, down to approximately 25,000 companies in 2009. At the same time there was a shift in company size. While the number of companies with a vineyard area up to 5 ha declined steadily, the number of wineries with 5 ha and more rose until the year 1999 and declined only between 1999 and 2009 (see appendix 1) (Deutsches Weininstitut, 2013).

The same development has occurred amongst cooperatives. As can be seen in table 1 the number of winegrowers' cooperatives in Germany declined from 342 in 1980/1981, to 179 in 2011/2012. However, while the number of cooperatives was cut in half, the vineyard areas of cooperatives have declined, but not to such an extent. In the same period it declined only from 34,935 ha to 30,066 ha. This reflects the ongoing merging process in the wine sector. Many cooperatives merge in order to grow into a larger entity; the drive to merge is a response to recent market conditions. (DRV, 2012, Württembergischer Weinbauverband, 2012).

Table 1: Development of Winegrowers' Cooperatives in Germany

Year	Number of Cooperatives	Vineyard Area in ha
1070/71	497	31,769
1980/81	342	34,935
1990/91	314	37,148
2000/01	258	31,417
2005/06	220	32,111
2011/12	179	30,066

Source: DRV, 2012

Regarding this consolidation process in the wine industry, it is crucial to understand objectives and success factors of mergers and acquisitions. While the objectives are on the hand, there have been no investigations concerning the success and success factors of these mergers and acquisitions. As cooperatives still hold an important position in the German wine industry, it is of special interest to learn about the success and success factors of mergers among cooperatives.

Before it is possible to discuss the success/failure of cooperative mergers and acquisitions, it is necessary to define "success" in wine cooperatives. In order to accomplish this, the unique characteristics of cooperatives will be described. After that there will be an overview on current approaches of measuring success in mergers. At the end a framework to measure success in mergers of wine cooperatives will be presented.

2. COOPERATIVES AS A LEGAL FORM IN GERMANY

2.1 Characteristics of Cooperatives

Cooperatives are associations whose objective it is to provide goods and services to its

members in order to support the members in their business operations. The main objective is to enable the members to gain a higher income than if they acted alone. Cooperatives can only be founded as a means of self-help and cooperation. In general the members maintain their economic autonomy (Genossenschaftsgesetz §1; Deutscher Raiffeisenverband a).

Another characteristic of cooperatives is that all members are equal. Contrary to stock corporations, in cooperatives all members have the same voting rights. The voting rights are distributed in the manner of “one member – one vote”. In this way all members have the same influence on decisions regardless of their economic power. All duties within a cooperative are administered to by the members themselves (Gabler).

To become a member of a cooperative, the aspirant has to buy cooperative shares, which are defined depending on the capital demand of the cooperative. Out of these cooperative shares a minimum of 10% has to be paid in. Together with the reserves, the cooperative shares constitute the equity of the cooperative (Kircher, 2013).

2.2 Characteristics of Winegrowers’ Cooperatives in Germany

Many different kinds of cooperatives exist. This work will focus exclusively on economic cooperatives, especially on winegrowers’ cooperatives in Germany. Winegrowers’ cooperatives are productive, market-oriented associations. The members are located at the supply side of the value chain. They produce the grapes and deliver them to the cooperative, which produces and markets the wine (Gabler; Dülfer 1984).

According to this structure the members of winegrowers’ cooperatives have a double function: On the one hand they are members and furnish the equity, on the other hand they are the grape suppliers. They are the only providers for the cooperative.

Another characteristic of winegrowers’ cooperatives is that the equity shares are defined according to vineyard-size. The idea is that the members who use a cooperative’s facilities to a larger extent should also participate more in equity. So a member whose vineyard is double in size than that of another member holds double equity shares. However, the voting right stays the same, it is always “one member – one vote” (Kircher, 2013).

The main advantages of joint production and marketing are lower costs and higher bargaining power. The cost reduction is realized mainly through fix cost degression in wine making. The members avoid buying all the machines and equipment required to produce wine on their own. On the market side, the joint marketing gives a higher bargaining power through higher quantities. Likewise, some distribution channels are only open for high quantities that a single member could not deliver. For example, in the food retail sector some minimum quantities are obligatory to start negotiations. So the idea of joint production and marketing is to gain higher profits than if the members would act alone (Dülfer, 1984; Armbruster 2011).

As compensation for their work, the members of the cooperative are supported in two different ways:

- Direct support: payment for grape supply.
- Indirect support: innovations aimed at cost reductions and quality improvements which will lead to higher direct support in the future.

The payment for grape supply (“grape payment”) which each member receives, varies according to the amount and quality of the grapes delivered. It is paid out in two to three tranches during the year after delivery. However, as a vintage is generally sold over a three year period, the future profit gained with these grapes is unknown upon delivery. The total profit is only realized four years later. The cooperatives handle this insecurity in two different ways. The first way is to fix the payment according to experience and projected value. If the vintage is more or less successful than estimated the up- and downturns are balanced with the reserves.

The second way of calculating grape payment is more accurate and much more demanding. In this approach the cooperative tracks each vintage separately until all units are sold. The vintners are also paid a preliminary amount in two to three tranches after delivery. But the final calculation occurs four years after delivery. The final profit of the vintage is calculated and if it was higher than estimated the vintners gain a surplus. If it is lower, the difference is balanced with a lower annual grape payment. However generally the cooperatives try to estimate cautiously to avoid this situation. During the three years the cooperative must build up reserves for possible future payments (Genossenschaftlicher Prüfungsverband für Dienstleistungen, Immobilien und Handel).

From the indirect support the members profit in an indirect way. In winegrowers’ cooperatives the net income is not distributed among the members but stays inside the cooperative. It is put into the reserves and is used for future investment, for example, investments in production technology. Even if a member leaves the cooperative these profits are not paid out. In that scenario the members receive only the equity share that they paid in (Kircher, 2013, Fink et al 2007).

3. MERGERS AND ACQUISITIONS BETWEEN WINEGROWERS’ COOPERATIVES

3.1 Basics on Mergers and Acquisitions

Mergers and acquisitions are a part of corporate strategy. The term describes the process of two companies consolidating into one joint company. But even if “mergers” and “acquisitions” are often uttered in the same breath, there is a slight difference between both of them. Generally, mergers describe the consolidation of two companies. Both companies agree to merge and to go forward as a single new company. Both companies` stock are surrendered and a new company stock is issued in its place. Often mergers are described as “friendly” (Risse et al, 2006; Seiler 2004).

Contrary to mergers, acquisitions describe the process in which one company takes over another “target company” (or parts of it) and the target company ceases to exist. The target company is “swallowed” and the buyer company establishes itself as the new owner. When acquisitions take place without the agreement of the company that is to be taken over it is considered hostile (Risse et al, 2006; Volkart 2002).

In the cooperative sector both mergers and acquisitions occur, but hostile acquisitions are impossible. The consolidation of two cooperatives can only be carried out if the members agree to do so. The reason for this is that in order to merge two cooperatives the target cooperative needs to be dissolved and this can only be done if 75% of the members agree (Genossenschaftsgesetz §78, Umwandlungsgesetz, 2011, §84).

If two cooperatives decide to unify, an advisory report on the acquisition needs to be drafted. It

should demonstrate that the acquisition is in accordance to the members' interests. Furthermore, the management board of both cooperatives signs a merging contract (Umwandlungsgesetz, 2011 §4-§6, Kircher 2013). In this contract the exchange rates for the cooperative shares are defined (Umwandlungsgesetz, 2011 § 80). The advisory report, the merging contract and the last three annual financial statements are to be presented to the general assembly for final acceptance (Schwedhelm, 2006).

If 75% of the members agree to the acquisition the cooperative that is to be taken over is dissolved; their assets and debts are transferred to the buying cooperative. The members also switch automatically to the buyer's cooperative and receive shares of their "new" cooperative. However, they can also decline to become member of the new cooperative. In this case they are paid out their shares. The right to decline membership lasts for 6 months after acquisition (Umwandlungsgesetz 2011, §89, Schwedhelm 2006).

A merger between cooperatives generally follows the same procedure as an acquisition. The difference is that both cooperatives cease to exist and a new charter has to be devised. Furthermore, a new supervisory board and management board needs to be elected (Schwedhelm, 2006; Genossenschaftsgesetz 2013, §§ 97,98). Because the difference between "mergers" and "acquisitions" only concerns the consolidation process and leads to the same result, both expressions are used synonymously.

After completion of the merger/acquisition the company shares of both cooperatives need to be aligned. The difference in value between the former company share and the new company share needs to be paid in/out so that at the end all members have equal value shares (Schwedhelm, 2006; Genossenschaftsgesetz 2013 §7a, Abs. 2).

3.2 Objectives of Mergers and Acquisitions Among Winegrowers' Cooperatives

Regarding the objectives of M&A activity cooperatives also differ slightly from other companies. While in companies one of the main objectives of mergers and acquisitions generally is the enhancement of shareholder value, cooperatives do not focus on shareholder value. It is less important for cooperatives because members do not profit directly from a rise in equity. When members leave the cooperative, they are only paid out the same equity share they once paid in. A much more important objective for cooperatives, as member-driven corporations, is the support given to the members. The main objective of mergers and acquisitions between cooperatives is to enhance the support payments and all factors that influence the payments. In winegrowers' cooperatives the main objective is to enhance the grape payments. They can be increased if turnover increases and costs decline (Fink et al, 2007).

A very important factor to increase turnover and to decrease costs is the number of members in a cooperative. A declining membership generally leads to a lower quantity of grapes and thus to lower turnover. This results in lower fix cost degression and increases the cost of each bottle of wine. Furthermore, each member that leaves the cooperative results in loss of equity (because company shares are paid out). This limits financial freedom, especially regarding future investments (Kramer, 2004).

On the market side, more members put the cooperative in a better position. Many wine drinkers buy wine exclusively in super markets; therefore, the retail sector is a very important marketing channel. In order to deliver to the big retail chains a high quantity of wine is necessary. In

addition, higher quantity often means increased bargaining power, which results in higher prices (Seiler, 2004).

Last but not least, more members help to reduce the natural risk of wine making. As wine is a natural product it is highly influenced by weather conditions. The larger the geographical area of a cooperative the lower the risk of total crop failure

To sum up, there are two main objectives of mergers and acquisitions between winegrowers' cooperatives. The first and undoubtedly the most important objective is to maintain or to enhance the grape payments. The second is to maintain or to increase the number of members. Both objectives depend on each other: The more members are united in one cooperative, the better the likelihood is to gain higher profits and to pay out higher grape payments. And the higher the grape payment is, the more attractive the cooperative is to its members. Cooperatives with higher grape payments will have a lower risk of losing members because it becomes more difficult for a member to realize the same profit elsewhere (working independently or in another cooperative). All the other objectives which are often mentioned in the context of M&A activity, like economies of scope and scale, cost reductions, increased market share, etc., are secondary objectives and support the primary objectives.

4. MEASURING SUCCESS OF MERGERS AND ACQUISITIONS OF WINEGROWERS' COOPERATIVES

4.1 Recent Approaches to Measure Success

Many companies and cooperatives use external growth as part of their corporate strategy and as a method to succeed in competition. The objectives of M&A activities are manifold but all aim to secure a company's future and to improve its market position. But do mergers and acquisitions fulfill this objective? Are they successful?

First of all it is necessary to define the term "success". Generally speaking success is "the accomplishment of an aim or purpose". More concretely, success is "a person or thing that achieves desired aims or attains fame" (Oxford Dictionary). Put into the context of mergers and acquisitions, M&A activities can be considered successful when companies achieve their pursued goals. There is not only one criterion to determine the success of M&A activities. On the contrary, success seems to be best characterized by highly individualized criteria. This poses the question, how can the success of mergers and acquisitions be measured?

There are many studies measuring the success of M&A activity both in the cooperative and the company sectors. They differ widely in their definition, measurement approach and evidence of success. The approaches utilized can be divided into four groups. The first group evaluates merging activities between corporations from a macroeconomic point of view. This group attempts to identify the effects of consolidation processes on single industries and the entire economy. However, this article focuses on the microeconomic perspective, therefore these studies will not be examined in greater detail (Buckmann, 2012).

In the microeconomic perspective the most important approaches to measure M&A success are the following: "occurrence studies", "performance studies" (outcome studies) and interviews. Some studies even combine these approaches. Occurrence studies focus on reactions to M&A activities at the stock market. They analyze fluctuations in stock prices following merger announcements. They do this by comparing "normal" stock price development to stock price

development after the announcement. The difficulty is in estimating how the stock price would have developed without the announcement. But as the company shares of cooperatives are not traded on the stock market, this approach is of no interest for measuring M&A success amongst cooperatives (Buckmann, 2012; Spandau 2010).

The other two approaches are more interesting for cooperative mergers. In interviews managers and consultants who attended the merger are asked about the success of the merger. They give their personal opinion about the merging process and its success. In general, in interviews the success rates are higher than with the two other approaches. This can be explained by the fact that the interviewees are biased because they are being asked to rate the success of their own work (Buckmann, 2012).

A more objective approach is the analysis of financial statements, called performance studies. These studies attempt to evaluate mergers over the long term. In order to evaluate success a set of key indicators like profit, turnover, and return on equity, is chosen and analyzed. But this kind of analysis suffers from the same problem as the “occurrence studies”. It is difficult to know how the company would have developed without the merger. For this reason the studies generally utilize comparisons. They compare the company’s development to a set of companies in the same industry. Another problem is, that according to the key indicators chosen, the results might differ because the key indicators highlight different developments (Buckmann, 2012).

Regarding the objective, to learn about success between winegrowers’ cooperatives, both interviews and performance studies are applicable. In interviews both managers and new and old members of the cooperatives can be questioned about the success of the merger. This is very interesting, as it will allow a deep insight into the different points of view of managers and members. Analyzing the financial statements of the cooperatives will provide a more objective view the economic developments of merged cooperatives.

The focus of this paper is on the financial analysis, so we will take a deeper look at that approach.

4.2 Measuring M&A Success with Key Indicators

As mentioned above, the analysis of financial statements gives an objective insight into the operational performance of merged corporations. To get a preliminary idea of the success of the merger key indicators, taken immediately before and after the merger, can be compared. But to get a more complete picture of the success of a merger, the long term development of these indicators needs to be analyzed (Bestmann, 2011). To confirm that recent company development had its basis in the merger and was not caused by general industry developments, the key indicators should also be compared to other companies in the industry (Auerbach, 2009). Therefore, to get a comprehensive insight into the success of a merger, three analyses should be utilized:

- Short and long term comparison of key performance indicators before and after the merger (internal comparison).
- Comparison of key performance indicators with a selected control group.
- Comparison of key performance indicators with industry averages (Auerbach, 2009; Bamberger, 1993, Tebroke 1993).

The following indicators are, amongst others, used within performance studies:

- Turnover
- Net income
- Return on sales
- Return on equity
- Return on assets
- Cash flow
- Market share

Turnover is the annual sales volume excluding sales taxes and discounts. After a merger turnover is expected to rise because the number of clients and of products should increase.

Net income is the total revenue minus all expenses. In merged companies net income should rise as a result of increased turnover and reduced costs.

Return on sales indicates the percentage of sales that is available as profit. It is calculated as the margin between a profit indicator, e.g. net income or EBIT, and turnover. It is often used as an indicator of the creditworthiness of enterprises. Because it displays the sales-related earning capacity of an enterprise in successfully merged companies it is expected to rise.

Return on equity indicates the return on stockholders' equity. It shows if the stockholders' funds have been well managed. It is calculated as the ratio between net income and average stockholders' equity. In successfully managed consolidated companies return on equity should rise (Krause/Arora, 2010).

Return on assets displays how well management has invested the total assets to generate earnings. Return on assets is the margin between net income plus interest expense, divided by total assets. The same as return on equity, after a merger it is expected to rise.

The cash flow indicates a company's ability to meet its financial obligations. It shows if the company is able to generate a cash flow surplus and thus is able to invest. There are two different ways to calculate cash flow, both directly and indirectly. In the direct method the expenses causing cash outflows are subtracted from the revenues generating cash inflows. In the indirect method non-cash revenues are subtracted and non-cash expenses are added to net income/loss. For performance studies the indirect method is adapted because all the information is available in the income statement and balance sheet. In unified companies the cash flow is expected to rise due to synergies.

There are two different definitions of market share. The absolute market share indicates the company's position in the entire relevant market. It is calculated as the total sales of the company in relation to the total sales of all suppliers on the market. It is difficult to calculate because the total market size is difficult to estimate. The relative market share is more easily estimated as it compares the company's sales to the sales of their biggest competitor. As with a merger two companies become one and one company ceases to exist; market share of the new company should increase, both absolute and relative market share (Krause, Arora, 2010).

In an internal comparison (before and after the merger) it is necessary to define target levels for all performance indicators. In the critical literature it is often mentioned that the sum of two

merging companies should be $1+1=3$ (Bühner, 1990). One might assume that the target level of the performance indicators after a merger should equal the sum of the former indicators plus a surplus. But this is impossible. Especially in horizontal mergers, equipment and clients might overlap to a certain extent. Because of this it would not be realistic to demand that the performance indicators after a merger must surmount the sum of the old indicators. To define realistic target levels a deeper look at each of the key indicators is necessary.

4.3 Framework to Measure Economic Success in Cooperative Winegrowers' Associations

All of the performance indicators mentioned above can be used in performance studies on mergers and acquisitions between winegrowers' cooperatives. However, due to the special characteristics of cooperatives in general and winegrowers' cooperatives in particular some adjustments need to be made.

First of all the net income, as it is reported in the financial statement, is not suited to measure the profitability of mergers and acquisitions between winegrowers' cooperatives. One reason for this is that realizing profit is not the main objective for cooperatives. The net income is not distributed among the stakeholders; instead it stays in the company and is allocated to the reserves.

As stated in section 2.2, the main objective of a cooperative is to support its members. In winegrowers' cooperatives this is mainly accomplished by the grape payments the members receive for supplying the grapes. However, the price the cooperative pays for the grapes is not a market price but a political price that the cooperative decides on. As the grape payment is the only revenue the members receive, it is crucial for their satisfaction with the cooperative. If the grape payment is too low, the cooperative risks losing members because members will be more likely to switch to another cooperative, work independently or be forced to give up their business. As shown above this is a dangerous situation for the cooperative, as this will cause a loss in equity and vineyard area which puts it in a weaker market position.

The grape payment has a large impact on net income, as it is a main factor in cooperative expenditure. Higher grape payments lead to lower net income. Comparing the success of two cooperatives based solely on net income would lead to the wrong conclusions. Under the same conditions the cooperative which pays a higher grape payment will have lower net income and thus generally would be considered less successful. However, in the case of a cooperative, a lower net income could be an indication that it is more successful; its members might be more satisfied and have a better economic base for future production.

On the other hand grape payment should not be excessive. If the total net income is zero, there is no augmentation of the reserves. This would limit the future capability to act by hindering necessary investments. In the long term this would also put the existence of the cooperative at a risk. This shows that the amount of grape payments is a highly relevant decision. It also demonstrates that net income is not exclusively the result of economic action and therefore should not be used as a measure of profitability in merged cooperatives.

Nevertheless net income remains an important indicator for profitability. Therefore it should be included in the performance study in an adapted manner. In order to evaluate the economic success of winegrowers' cooperatives the net income before deduction of grape payment should be utilized. This indicator displays the cooperatives' success concerning revenues, gives information on cost effectiveness and is the base for grape payments and reserves. In order to

calculate the relative indicators, like return on sales, return on equity and return on assets, profit before grape payment should be utilized. This enables an accurate comparison between the cooperatives' profitability.

Nevertheless, net income as stated in the annual report is an important indicator of the cooperatives' long term market position. As all net income is allocated to the reserves, it informs the ability to finance future investments and therefore should not be overlooked. A cooperative can only execute necessary investments if adequate reserves are built up.

As a complete framework to measure the success of M&A activities between winegrowers' cooperatives the following system is proposed:

The most important indicator for cooperatives' success is the grape payment. It should be the focus of performance measurement as it is the main objective of each winegrowers' cooperative (direct support to the members). The grape payment plays a crucial role for the members because it is the only revenue they receive and secures their living. Furthermore, for the cooperative it secures equity and grape supply. But the total grape payment is not an accurate indicator for industry or for internal comparisons. When comparing different cooperatives the number of members amongst which the grape payments are distributed needs to be taken into account. There is a big difference if a grape payment of 1m euros is distributed among 100 or 200 members. The same holds for internal comparisons: In a merger a cooperative gains additional members, so a slight increase in grape payment might even lead to a decrease in grape payment per member. Therefore, grape payment per member is the correct base for measuring success within cooperatives.

The second important indicator in measuring the success of cooperatives is net income. The level of the reserves informs a cooperative's ability to invest; reserves are built up by the net income realized each year. However, as shown above, net income is not the correct measure for a cooperative's success. A bigger cooperative will also need higher reserves for future investment and therefore should gain higher net income. In order to accurately compare cooperatives of different sizes the correct measurement is net income per member.

In the case that the number of members is not available for analysis, the vineyard size of the cooperative provides a good alternative indicator. The grape payment per vineyard area is also a good approximation for a cooperative's success; in general a bigger vineyard should lead to higher profit both for the members and for the cooperative. This also holds for the net income: The bigger the vineyard area, the more grapes are produced and the higher the demand for investments.

To sum up, in a performance study on mergers two indicators are crucial:

1. *Grape payment /number of members or grape payment/vineyard size*
2. *Net income/number of members or net income/vineyard size*

Together these two indicators reflect the cooperative's aims and should be the basis for all statements regarding M&A success. These indicators display the current and future market success of the cooperative.

The other indicators mentioned above should be used as complementary indicators augmenting the analysis. They cast a light on different aspects of management which are also important to

cooperatives. They display development in profitability, liquidity and market position. But as mentioned above the indicators, return on sales, return on equity and return on assets, should not be calculated with net income but with profit before grape payment in order to avoid distortion.

Figure 1 displays the framework for the performance study in merged winegrowers' cooperatives

5. CONCLUSION

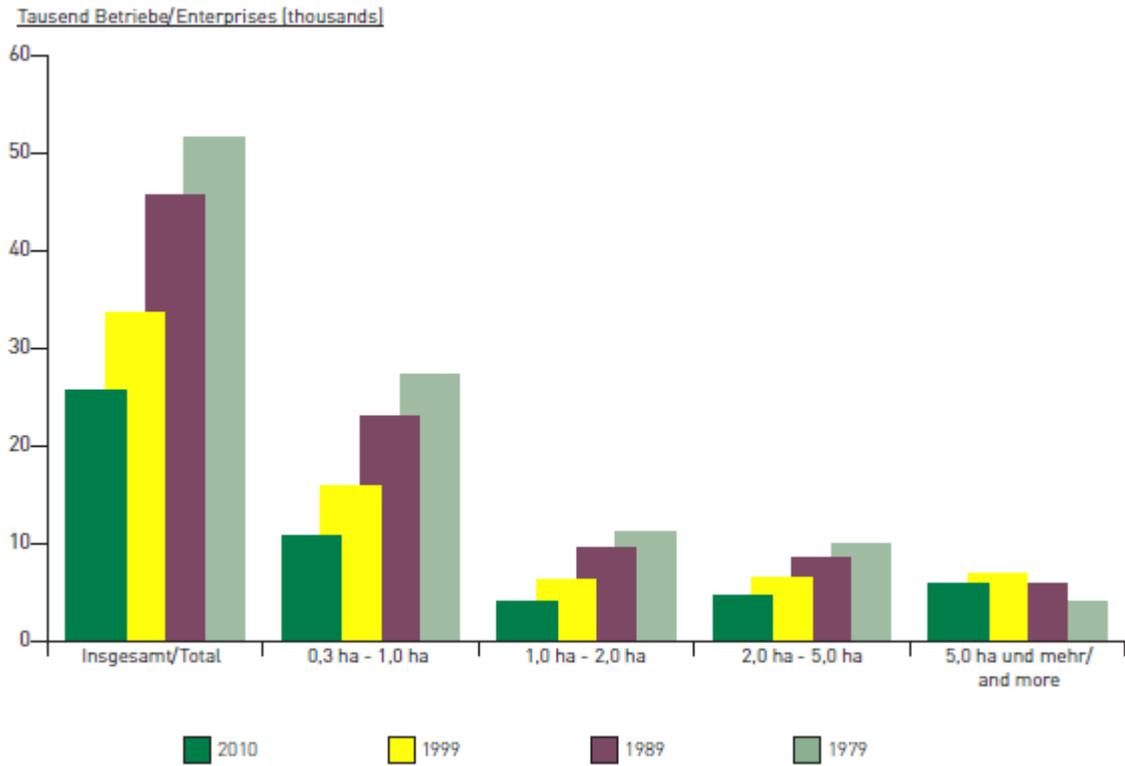
In comparison with other companies, cooperatives have special characteristics that influence the performance measurement of mergers and acquisitions. The main differences concern the objectives: While companies aim to maximize profit and shareholder value, cooperatives are founded to support their members. Winegrowers' cooperatives support their members directly through grape payments and indirectly through reserves for future investments built up from net income. Therefore, the main indicators to measure M&A success are the grape payments and the net income which builds up the reserves. For an accurate comparison between cooperatives both the grape payments and the net income need to be put into relation to the size of the cooperative, represented by the number of members or by vineyard size.

To accomplish the evaluation additional indicators, such as return on sales, return on equity, return on assets, market share and cash flow, should also be analyzed. But as net income in winegrowers' cooperatives is distorted by the grape payment, profit before grape payment should be used for calculating the profitability margins.

The next step in the development of this framework is to work out additional key indicators in more detail. The most important key indicators need to be selected and investigated in order to define the expected indicator levels for use in internal cooperative comparison, both before and after the merger.

Appendix

Table 2
Vineyard Area of Viticultural Enterprises in ha: Growth and Decline



Source: Federal Statistical Office (Destatis), derived from: Deutsches Weininstitut, 2011/12

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Full cost analysis for the creation of managerial benchmarks in the wine sector: a case study in Tuscany

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Abstract

◦Purpose:

This paper aims at identifying and quantifying the connection between a winery business typology and its production cost per bottle in order to create benchmarks for managerial and organizational choices.

◦Design/methodology/approach

Accounting data from wineries in representative areas of the Tuscan wine sector were collected with direct, face-to-face interviews. The data were processed using a Cost Accounting model elaborated by UniCeSV (Centre for the Strategic Development of the Wine Sector, University of Florence) to classify costs according to production phases and production factors. The study was completed using a Hierarchical Cluster Analysis (HCA) approach to investigate the relation between cost structures and business typologies.

◦Findings

The implementation of the Cost Accounting model and the HCA showed a strong relationship between how wineries are organized and how costs are structured. Moreover, the weight of geographical localization (in terms of belonging to a specific Denomination of Origin area) has proved to be a key determinant in the shape of the cost structures of wineries.

Key words: wine production, full cost analysis, clustering, managerial choices, Tuscany

1. INTRODUCTION

The globalization of wine markets and the evolution of consumption patterns have determined a stronger necessity to satisfy the tastes of larger and more heterogeneous groups of wine consumers (Menghini 2007). These changes have caused a reduction of profit margins and, as a consequence, the necessity to increase the attention on cost measurement and management (Ciaponi 2005).

Knowing the production cost of a good is a fundamental element in the management of a winery and the basis for a correct managerial strategy. (Mastroberardino 2002, Salghetti 2007). Nevertheless, most wine farms still do not have adequate systems for the monitoring of production costs, and such a situation shows how important it is to compensate for this deficiency supplying appropriate tools to wineries.

The Production Cost Monitoring Center of UniCeSV (Center for the Strategic Development of the Wine Sector, University of Florence), has developed a specific model to be employed in a software for the recording of costs in the wine sector and has implemented pilot studies (Casini et al. 2012, Alampi Sottini et al. 2013, Casini et al., 2014) that have emphasized how this tool could also prove to be very useful for the economic sustainability of the whole sector.

This paper uses the standard UniCeSV cost accounting model for the recording and the analysis of production costs in the wine sector in order to verify how the composition of the production cost of a single bottle of wine can be an expression of business typology. In the hypothesis of a strong relation, such information can be used as an important benchmark for managerial and organizational choices.

2. THE CASE STUDY

Tuscany is one of the most important wine regions in Italy in terms of cultivated land with 60,286 ha (10% of national total), with 69.2% dedicated to D.O. wine production. 27,396 farms cultivate vine, and 22% of them have D.O. grape growing activities. The main three grape-growing provinces are Siena (31.7%), Florence (28.2%) and Grosseto (14.5%) (ISMEA 2011, Regione Toscana 2013). More than 2.5 tons of wine were produced in the region in 2010, with D.O. wine representing 62% of the total (ISTAT 2013). There are two main farm typologies in the region, one that produces mainly D.O. wines, with an average vineyard area of 7 hectares per farm and producing 5,000 bottles per hectare, and one that produces mainly table wines, with an average vineyard area of less than one hectare and producing almost 7,000 bottles per hectare.

The regional wine sector is characterized by two big D.O.C.G.s, Chianti and Chianti Classico, that represent, respectively, 49.7% and 16.4% of all the D.O. wine produced in Tuscany. IGTs represent 32% of the regional wine production.

Viticulture is very important in the regional agricultural economy, as 15% of gross salable production originates from this sector. The value of exports was over 509 million euros in 2009 with a 13.6% increase in the first semester of 2010 (Regione Toscana 2013).

The structure of the Tuscan wine sector, as it is described above, is the main reason why this study was focused on D.O. producing wineries, concentrating the attention towards “historical” D.O.s – Chianti Classico and Brunello di Montalcino – and “new” D.O.s – Montereale di Massa Marittima and Morellino di Scansano – located on internal and coastal hills, trying to cover the wider quality range of regional wine productions. Within the four chosen D.O.s, and in proportion to the number of wineries located in each of them, the subjects of the survey were identified with a random extraction on a stratified sampling based on vineyard area. The survey was conducted on 40 wineries from Chianti Classico, 19 from Brunello di Montalcino, 9 from Morellino di Scansano and 8 from Montereale di Massa Marittima, for a total of 76 interviews.

A specifically designed questionnaire was administered to every winery via direct, face-to-face interview, allowing for the identification of the production cost of the main product of each winery in quantitative terms. The total cost was classified according to production phases (grape production, vinification, aging, bottling and marketing) and for each of them the costs for every production factor were determined. The analysis resulted in the definition of “standard” costs for each D.O., but the level of detail of the data allowed us to implement further elaborations to verify how much production costs are influenced by different business typologies and by the location within different D.O. territories.

3. LITERATURE AND METHODS

The knowledge of the production costs of a good is a key element in business management and the basis for a correct strategy to deal with management issue and/or to check the efficiency of the various production phases (Mastroberardino, 2002; Salghetti and Ferri, 2007). However, many wineries tend not to deepen the analysis of costs at the level of the individual product (Casini et al, 2012). This fact is especially true for small and medium-sized family farms, where the resources and/or the skills are not adequate to invest in improving accounting information systems, in particular in relation to cost accounting. Usually, the entrepreneur is not very keen to introduce innovative systems that go beyond general accounts (Antonelli and D'Alessio, 2007). Therefore, the absence of a management control system is a further shortcoming of Italian wineries if compared to global competitors, especially at a time where profit margins tend to progressively shrink.

The application of cost accounting in a winery requires specific expertise and resources for its successful implementation and management. Indeed, there are objective difficulties to properly assess the costs of individual bottles of wine as the business reality is often complex and multiproduct. The allocation of the share of the joint costs to a single bottle of wine is very complex and is a key process in the context of cost management (Ciaponi, 2005). In the literature, the allocation of joint costs to single products requires, at first, their aggregation according to one of these criteria: the individuation of homogeneous groups or “cost centers” (administration, marketing, cellar,...) or the Activity Based Cost method that identifies the management activities that generated the costs (vineyard, vinification, aging, ...). Then, the aggregated costs need to be assigned to each product using appropriate partition parameters or “drivers” (Salghetti and Ferri, 2007; Anna Maria Nati, 1989).

In this study we chose to evaluate the cost of producing a bottle of wine with the full cost method (Ghelfi, 2000; Torquati, 2003; Antonelli and D'Alessio, 2007). The production cost considers the remuneration of all the factors that contribute to the making of a wine bottle, including both the explicit and implicit costs. The former also account for such items as the inputs that the owner's family provide in a family-run business (family labour, land opportunity cost, ...).

The evaluation of the total cost of the bottle was carried out using a specific software developed by the research group working for the UniCeSV (Casini et al., 2014, Alampi Sottini et al., 2013). The data were collected by administering face-to-face questionnaires to the farms included in the sample, and then uploaded in the software.

The most representative product was identified for each winery. The procedure allowed for the calculation of the production cost per bottle and the calculation of separate items for each production factor and for each production phase. The factors cover the cost of family labour and non-family labour, administrative costs, raw materials, utilities, maintenance of durable goods, depreciation and the opportunity cost of land (land benefit). Then, each of these costs was attributed entirely or split among the various phases of production: grape production, vinification, aging, bottling and marketing.

4. RESULTS

A Ward Hierarchical Cluster Analysis (HCA) was conducted to pursue the aim of understanding the possible connection between the composition of production costs and business typologies. Since our focus is on the farms which cover all phases in the production chain, we excluded from the sample the wineries that buy grapes, bulk and aged wine.

Two HCAs were performed using two sets of variables representing the main classifications of production costs resulting from the cost accounting model used for the collection and the analysis of data:

- Set 1: production phase costs (all items pertaining to grape production, vinification, aging, bottling and marketing)
- Set 2: production factor costs (all items pertaining to the labour, capital and land categories).

The choice of the hierarchical level was based on the observation of dendrograms and the dissimilarity measure, resulting in a two level cut for Set 1 and a four level cut for Set 2.

Table 1 shows the main characteristics of the groups resulting from the Set 1 HCA.

Tab. 1: Results of Set 1 HCA (production phase costs).

<i>Characteristics</i>	<i>Group 1</i> <i>"Standard Quality"</i>	<i>Group 2</i> <i>"Top Quality"</i>
n. of wineries	47	24
cost per bottle (€)	4.45	9.11
Labour	mainly family	mainly non-family
vineyard area (ha)	30.13	31.86
D.O. vineyard area (ha)	21.54	20.03
bottled wine (%)	78.79	86.16
D.O.	Chianti Classico, Monteregio, Morellino	Brunello, Chianti Classico

The HCA results show significant differences between the two groups of wineries in relation to both average production cost and its composition. In terms of production phase, the costs of the first three (grape production, vinification and aging) for the second group are over double than those of the first. In terms of production factors, the second group shows higher values in all the categories and especially for “common costs”, “depreciation” and “non-family labour”. The results for labour costs are probably due to the fact that the two groups of wineries differ in the level of skills of the human capital they require. On the other hand, the two groups are very similar in terms of average vineyard areas and D.O. grape cultivation. However, the data show that the second group has a lower yield per hectare and a higher share of D.O. wine production in their portfolio, indicating a stronger attitude towards high quality. It is also important to point out how territory seems to be relevant in the groups composition, as the first group is mainly composed by farms belonging to lower quality D.O. territories and all the farms from the Montalcino area are concentrated in the second one; Chianti Classico farms are split between the two groups, as a result of a wider range in the quality of production and business typologies. The emphasis on quality aspects in the characteristics of the groups explains our use of “Standard Quality” and “Top Quality” for their definition.

Table 2 shows the main characteristics of the groups resulting from the Set 2 HCA.

Tab. 2: Results of Set 2 HCA (production factor costs).

<i>Characteristics</i>	<i>Group 1</i> <i>"No Brand"</i>	<i>Group 2</i> <i>"Average Brand"</i>	<i>Group 3</i> <i>"Top Brand"</i>	<i>Group 4</i> <i>"Elite"</i>
n. of wineries	20	22	20	9
cost per bottle (€)	4.39	4.20	7.33	11.21
Labour	mainly family	mainly non-family	mainly non-family	family & non-family
vineyard area (ha)	20.64	39.62	37.12	17.13
D.O. vineyard area (ha)	13.05	30.22	23.51	10.76
bottled wine (%)	24.33	92.50	81.65	91.89
D.O.	Chianti Classico, Monteregio	Chianti Classico, Morellino	Brunello, Chianti Classico, Monteregio	Brunello

The results of this second HCA apparently confirm what emerged from the first one, adding a higher level of detail. Specifically, the second HCA basically splits the groups resulting from the first one into more defined groups (with only a few exceptions: group 1 from the first HCA splits in groups 1 and 2 from the second HCA, group 2 from the first HCA splits in groups 3 and 4 from the second HCA). The word “brand” was used in the definition of the four resulting groups for two main reasons: the strong characterization of the first group as a bulk wine selling category, with no emphasis on branding, and the business/territory diversification that suggests different brand strengths that depend on the identity of both the winery and its D.O.

The four groups differ significantly in terms of average price per bottle and its composition, showing a progressive increase of the quality of the product and specific characteristics related to business organization and management and territory. This representation allows for a better description of specific benchmarks in relation to different production environments and settings: for example, the different composition of production costs shows how the wineries belonging to the first two groups, even though they share a similar average cost per bottle, differ in terms of business structure (size, labour market).

The average cost per bottle of group 4 is over 50% higher than that of group 3. In addition, group 4 represents a typology of smaller, more family-run and quality oriented wineries with a strong territorial brand, while group 3 includes larger, more complex organizations producing high quality wine and belonging to different territories, indicating a strength based on diverse mixtures of business and territorial brands.

As a final remark, the description of the results indicates that the territorial aspect, though not the main focus of the study at the beginning, has indeed a pervasive influence on the cost structures of wineries. Thus, the territorial reputation linked to specific D.O.s goes far beyond being a contextual issue, as a specific localization determines the quality of the final product crucially impacting the composition of factor and phase costs.

Table 3 shows the composition of average costs per bottle for the four groups resulting from the second HCA.

Tab. 3: Composition of average costs for Set 2 HCA (€/bottle).

<i>Macro cost items</i>	<i>Group 1</i> <i>"No Brand"</i>	<i>Group 2</i> <i>"Average Brand"</i>	<i>Group 3</i> <i>"Top Brand"</i>	<i>Group 4</i> <i>"Elite"</i>	<i>Total</i>
<i>Factors</i>					
Family labour	0.89	0.13	0.14	1.51	0.52
Non-family labour	0.35	1.15	1.98	1.23	1.17
Common costs	0.31	0.58	1.12	1.17	0.73
Depreciation	0.97	0.81	1.32	2.78	1.25
Variable costs	1.65	1.32	2.13	3.05	1.86
<i>Av. Total Cost</i>	<i>4.39</i>	<i>4.20</i>	<i>7.33</i>	<i>11.21</i>	<i>6.03</i>
<i>Phases</i>					
Grape production	1.34	1.46	2.68	4.82	2.19
Vinification	0.38	0.49	0.81	1.12	0.63
Aging	0.56	0.51	0.92	1.57	0.77
Bottling - Marketing	2.11	1.74	2.93	3.71	2.43
<i>Av. Total Cost</i>	<i>4.39</i>	<i>4.20</i>	<i>7.33</i>	<i>11.21</i>	<i>6.03</i>

5. MANAGERIAL IMPLICATIONS AND CONCLUSION

This study has tested the validity of the UniCeSV full cost accounting model as useful tool in support of decision making processes for wineries, highlighting its importance when applied on a territorial level.

The results of the study clearly show that the information on the distribution of total costs among phases and production factors can certainly provide indications to improve business management. The most important result is represented by the elicitation of an unequivocal relationship between different cost structures and different, well defined business typologies. In more detail, the HCA highlights an articulated link between the cost of a single bottle of wine and the level of wine quality, the managerial and organizational structure of the winery and the prestige of the territorial brand. This link justifies the possible use of the results for the definition of benchmarks to guide management choices and decisions. In particular, the deviation from defined benchmarks/standard costs could represent an impulse for winery managements to carry out specific market analyses to verify the economic feasibility of their activities; moreover, if such deviations are traceable to specific cost items, they may be interpreted as a signal to be investigated in order to identify and correct the problem.

In addition, at the local level, the information and the economic-financial data supplied by the study can be a very useful tool for the preparation of business plans and feasibility analyses for potential new activities and investors.

The results obtained with this model would be of further significance if matched with results on studies on prices and margins; this would provide valuable information to better understand if and how the value of certain product attributes justify the pertinent costs.

The benefits deriving from the application of this model can also be expanded by extending the observations and data recording to more differentiated territories that include other D.O.s and by setting a dynamic, systematic monitoring of the data. As a matter of fact, only a timely and continued recording of production costs can provide useful and reliable information. In order to do so, it is imperative to increase the interest of farmers towards management control tools for the creation of local monitoring centers.

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Winery reputation – Do German guides provide orientation on wineries and is engagement and investment attractive for wineries?

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- *Purpose: For German wineries quality reputation seems to be the strategic key success factor. In the world of wine where consumers' capabilities to assess the quality are limited reputation serves as surrogate information. Furthermore, wineries predominantly base their strategic positioning on their quality and winery reputation. Reputation building therefore is in the interest of the wineries with the need for adequate attention, strategy, and investments. Wine guides claim to play an important role in building winery reputation in Germany. This article exploits the judgments of three relevant wine guides. Gained insights increase transparency to their quality assessments. Examining firm reputation as well as collective perspectives the findings contribute to the theory of reputation. Supportive information for managerial decisions in regards to investments in quality and in reputation is delivered.*
 - *Design: For an explorative study we created a database with the expert judgments of three dominant wine guides in Germany for three consecutive years, wine prices and further descriptive data. The database consists of more than 800 wineries and contains 6,229 quality ratings and 4,713 prices. All German wine growing regions, about 10% of the German winery population with direct consumer sales and more than 20% of the total wine production of Germany are represented.*
 - *Findings: We find evidence for relevance of firm and collective reputation in the wine business. Individual winery reputation profits of expert judgments. To create awareness and resulting recommendations entry barriers have to be overcome. Reputation needs to be created and preserved, therefore investments are to be considered. The risks of highly volatile quality assessments once being judged and accepted as quality winery seem rather low. To be recognized in the elected group of outstanding wineries for Germany is quite a challenge. Membership as distinguished provider (VDP) is a relevant success factor. This observation further supports the notion of collective reputation effects, besides regional collective aspects. Regional reputation impacts performance but is not a result of size or cost structure of the regions. This reputation dimension is a long-term phenomenon. Actual pricing seems to reflect regional reputation where few regions over- or underprice. The growth of graded wineries in the guide population might decrease the value of honored judgments and hence their value in reputation building.*
 - *Practical implications: There is an investment risk to be considered and expectations in regards to return on reputation via expert judgments by guides need to be managed. Knowing the judgments mechanisms as well as the different recognition behaviors allow for individual strategies in regards to wineries' reputation building via guides. Wineries' approaches should fit their strategic orientation with longstanding adequate planning and measures.*

Key words: quality judgments, winery performance, ranking, reputation.

1. INTRODUCTION

Product quality is critical for consumers but its assessment is complex in the world of wine (Orth 2010). Quality certainly matters (Hall and Mitchell 2010, Kern and Müller 2010, Orth 2010, Riviezzo, De Nisco and Garofano 2011), but since wine is an experience good (Cagriota 2012, Gokcekus and Nottebaum 2011) with information asymmetries between producer and buyer (Karpik 2010, Akerlof 1970, Bagwell and Riordan 1991) there is high uncertainty for the consumer when judging wine product quality (Cagriota and Delmastro 2009, Andersson 2002). For wine, quality assessment is limited to its consumption and symbolic criteria such as aesthetics, status, or taste (Charters and Pettigrew 2005, Corsi, Lockshin and Mueller 2011, Olsen and Newton 2011) substitute functional quality determination. Additionally, the product varies yearly due to seasonal vegetation and volatility in the wine making process so that historic quality judgments do not guarantee identical future quality experience. As a result, wine consumers feel limited in their capability to assess quality (Lachmann and Arnold 2011, Schneider 1996, Häusel 2008, Ashenfelter 2008, Gergaud and Livat 2007, Schiefer and Fischer 2008). Consumers experiencing limited offering assessment capabilities rely on the producer's reputation (Winfree and McCluskey 2005, Kirmani and Rao 2000, Landon and Smith 1998, Shapiro 1983).

Quality and reputation are primary strategic determinants for German wineries. 85% are pursuing strategies where quality builds the cornerstone of the strategic positioning and offering, only 15% strive for cost leadership or niches (Dressler 2013b). Hence, reliable reputation to distinguish from the competitors is in the strategic interest of winery. Expert ratings are commonly regarded as objective source for reputation of wines and wineries. Indeed, wineries increasingly use them to communicate their reputation, although the value of those ratings for consumers is discussed controversially (Goldstein, et al. 2008, Cao and Stokes 2010, Cicchetti 2010).

We gathered data of three different wine guides to explore their reputational value for German wineries. Our interest is not in the adequacy of the underlying wine ratings but in the impact of the judgments on the wineries in the context of winery reputation. For winery managers, reputation building is an investment. Additional transparency of the reputational effects of those investments should enhance managerial decision making.

2. REPUTATION THEORY AND GUIDING RESEARCH APPROACH

Reputation can reduce uncertainty; assessment costs and impacts the consumer's quality perception (Cavusgil 2007, Cagriota and Delmastro 2008, Schrader 2008). For the German wine world, characterized by more than 10.000 brands, wine guides claim to provide orientation and to support reputation building for the wineries. Indeed, expert ratings are found to impact reputation (Cagriota et al. 2012, Gokcekus and Nottebaum 2011; Hay 2010, Visser and Langen 2006, Kaiser 2008, Cardebat and Figuet 2013, Frick and Simmons 2013). In general, positive expert reviews should result in higher reputation and prices (Ashenfelter and Jones 2012, Hady Ali et al. 2008, Dubois and Nauges 2010, Riesz 1978, Morss 2010). Since the German wineries center their strategic positioning predominantly on wine quality, their quality reputation is of paramount managerial importance.

The concept of reputation distinguishes the two dimensions individual/firm and collective reputation (Cagriota, et al. 2008). This dual reputation (Rickard, et al. 2012) is apparently highly relevant in the wine business and hence subject of our analysis of German wine producers selling to end consumers. A prerequisite to apply the theory of firm reputation (Winfree, et al. 2005) is that the producers are able to differentiate, what is the case for our research subjects, since they sell premium wine and therefore strategic positioning matters (Dressler 2013b, a). Indeed, many entrepreneurial activities are pursued with the ambition to

position the producer in the market, such as generic strategies, offering, brand, stories, terroir, varietals, yeast, usage of barrels, innovation or other production features. Additionally, collective reputation (Tirole 1996, Costanigro, et al. 2010) has proven to be important for agricultural products and especially for wine (Winfree, et al. 2005, Castriota and Delmastro 2009), although apparently less researched. The concept of origin of wine and appellations reflects that collective activities impact the reputation.

We explore a database created on the basis of German wine guides in the context of firm and collective reputation. Practitioners are puzzled whether activities to get recommended in the wine guides pay off. Our research explores the managerial challenge where to allocate resources to foster reputation. To address resource allocation in the context of firm reputation we on the one hand analyze the homogeneity of guide judgments. For the dimension of collective reputation we explore regional reputation effects of the guides. Hence, our analyses aim to contribute to the theory of reputation and add more in-depth understanding of the success factors of winery management (Shapiro 1983, Klein and Leffler 1981, Melnik and Alm 2005).

3. WINE EXPERT JUDGMENTS IN GERMANY

Expert judgments are longstanding and historic practice in the German wine business. Only via official expert judgments wineries are allowed to label their products as quality wines. Furthermore, the system constitutes the basis for official honors and awards that are commonly used in product communication. Quality wines need to pass the official analytical and sensory test to be categorized within the quality pyramid. They can then be nominated to be awarded gold, silver, or bronze medals in their wine quality category (Rössel and Beckert 2012). Based upon the official wine recognitions the wineries might qualify additionally for honors - e.g. "Großer Staatsehrenpreis" (Rathke and Boch 2011, Koch 1972, Landwirtschaftskammer 2012). Besides the official judgments there exist numerous private quality assessments, awards and ratings from different organizations: Mundus Vini, Vinum – Deutscher Rotweipreis, Selection – Premium Select Wine Challenge etc. (Mundus Vini 2014, Intervinum 2014, Konradin Selection 2014). Quality assessments of wine guides are furthermore used by consumers to inform about wineries and their wines. For Germany, three renowned wine guides publish individual rankings of German wineries annually on the basis of their quality testing processes.

The impact and importance of wine expert ratings surely increased since Robert Parker published his assessments in 1978. Parker points are assigned according to the American school system from 50 to 100 points (Parker 2014) whereby 96 to 100 points describe extraordinary wines (Storchmann, et al. 2012). The wine reports are published in the bimonthly journal "The Wine Advocate" as well as in different wine books. Robert Parker is commonly regarded as the most influential international wine expert and his classification system serves as role model worldwide (Hadj-Ali et al. 2008). Regarding wine guides in other countries, in 1985 the first French wine guide "Le guide Hachette des vins" was released, followed 1988 by the Italian guide "Gambero Rosso" and 1990 by the Spanish register "Guia Peñin" (Gambero Rosso 2014, Guia Penin 2014, Hachette Livre SA 2014).

For Germany, the three wine guides and their judgments of the quality of German wines and wineries seem highly influential, publishing 30.000 to 74.000 printed booklets a year. (Gault Millau 2014, Kreativ Media 2014, Brandmedia 2014) They judge with different assessment processes and ranking systems (see figure 1). In 1994, the "Gault Millau" (GM) published a first edition of quality assessments of the German wine market for wines as well as the producing wineries. Meanwhile the wines are classified on the basis of the international 100-

point-system, wineries are ranked by assigning grapes as symbolic quality scores. Five grapes mark the top producers. In 2014, the editor Joel B. Payne and his team of regional wine tasters list 1.093 wineries and 11.424 wines, four times more than in the first edition (Gault Millau 2014).

Wine guide	Feinschmecker	Gault Millau	Eichelmann
Symbolic winery assessment			
Wine judgments	none		
Transcript into ordinal scale	0.5 to 5 points (0.5, 1, 1.5, 2,..... 5 points)	0.5 to 5 points (0.5, 1, 2, 3, 4, 5 points)	1 to 5 points (1, 1.5, 2, 2.5 5 points)
Degustation process	Open tasting	Open tasting	Blind tasting

Figure 1: Overview wine guides and rating systems

The German gourmet magazine “Feinschmecker” (FS) published their first ranking of German wine producers in 1996. The ranking information is provided either as a supplement to the subscription of the monthly “Feinschmecker” or as separate publication with a one month delay. Dieter Braatz and his team assign from one to five “F” as performance indicators. Today, the wine guide recommends about 900 German wineries (Jahreszeitenverlag 2013).

Since its first publication in 2000 the wine guide “Eichelmann” (EI) established as additional standard information on German wines and wineries. The author Gerhard Eichelmann informs about the assessment of wines as well as producers. Wines are judged by the 100-point-system meanwhile producers can earn up to five stars to rank as top wineries. In 2014, Eichelmann qualified more than 900 winegrowers and delivers information on about 10.000 wines (Verlag Mondo 2014).

4. DATA BASE, EXPLORATION, AND RESEARCH QUESTIONS

By exploiting the three renowned German wine guides we draw on three different sources. We added descriptive information from the internet or other data sources. In case of inconsistencies we contacted the wineries for clarification. As dependent variables we use the two proxy variables quality and price that have proven to be reliable to assess reputation (Costanigro, et al. 2010, Frick 2004, Rössel, et al. 2012, Schamel 2009, Schamel, and Anderson 2003). The listed wineries of the “Feinschmecker” wine guide for 2011 built the core of a database where the quality assessments are transpositioned into an ordinal scale. We then added descriptive information of the wineries, e.g. region, size, ownership, membership, the quality assessments of FS for the years 2009 and 2010 as well as the quality ratings of “Gault Millau” and “Eichelmann” for the years 2009 till 2011 for the identified wineries. Prices for wines of the rated wineries in the database stem from the guide “Gault Millau”. As a result, the database consists of 826 wineries, 6,229 quality ratings and 4,713 prices. All German wine growing region are well represented. The database covers about 10% of the German wine estates with direct sales to the consumer and the wineries jointly make up for more than 20% of the total wine production of Germany.

Providing information to the following research questions should increase the transparency for managerial decision making in regards to investing into reputation building via guides:

Managerial issue	Research questions (firm or collective reputation)
Should winery managers consider to select or prefer a specific guide when investing into reputation building via guides?	How homogeneous are the judgments of the guides and what distributions characterize the guides? (firm)
Is the challenge rather to enter the guides or to remain at an achieved recommendation level (invest vs. reinvest)?	How dynamic and volatile are the judgments? (firm)
What are success factors to achieve higher levels of recommendations?	Does membership in a closed circle impact judgments? (firm/collective)
Will my firm reputation depend solely on my wines / winery – (could I profit or perhaps have disadvantages of collective reputation)?	Is there a regional impact on the performance proxies observable? (collective)

5. ANALYSES RESULTS

Firstly, we compare the three guides by looking at their different judgment levels and the homogeneity across the guides. The “Feinschmecker” judges with an average of 1.6, “Gault Millau” with 1.8 and “Eichelmann” with 2.6. Meanwhile, “Eichelmann” classifies twenty-seven wineries of the database with the highest possible score, for “FS” thirteen winegrowers and for “GM” nine wineries achieve maximum scores. The mean quality ranking over the years proves to be rather constant. FS decreases from 09 to 11 from 1.6 to 1.5 whereas GM mean value increases (1.8 to 1.9) and EI judgments result remains constant (2.6). Due to different populations of wineries each year, i.e. an increase in qualified wineries, changes in average quality levels might stem from added qualified wineries. Meanwhile 107 wineries are rated equally across the judges some outliers of assessments are identified: “FS” rates one winery in 2011 with one point that “EI” assigns in the same year five points; “FS” qualifies a winegrower only with entry rank who obtains four out of five points by “EI”. Overall, 14 estates show a difference of three points, 49 of 2.5 points, 101 of two points, 165 of 1.5 points, 208 of one point and 180 of 0.5 points.

Consistency is important for reputation. For the three year period, 24 % of the wineries listed in “Feinschmecker”, 23 % of those by “Gault Millau” and 30% of “Eichelmann” receive different ratings over time (Outreville 2012). Regarding the distribution of up- and downgrades and therefore changes in grades, GM upgrades 70% of the wineries meanwhile downgrading 30%, FS 54% and 46% and EI 49% and 51% respectively. Nevertheless, the volatility is rather limited, especially in the premium area. More than 90% of the up- or downgrades for all guides are with a maximum of one quality level. For FS 90%, for EM 70%, and for GM 28% are .5 changes. The most extensive jumps in “GM” are one up- und two downgrades by two points. For “FS” two estates improve their performance by 1.5 points over time whereas in “EI” three winegrowers report an equal success. Two wineries with 1.5 jumps are equally rewarded by two guides. Out of the top-25 ranked estates fifteen receive constant ratings, eight winegrowers are slightly upgraded and two are downgraded over time. (See figure 2) Three estates consistently outperform for all observed years as well as for all guides. The estates domicile in three different wine regions. “FS” and “GM” qualify three

more estates consistently at highest level for the years of observations. Eight wineries are present in each guide's top ranking but with different quality recognitions. Seven of the top 25 wineries belong to the wine region Mosel followed by four estates from the Pfalz region.

	Winery	Region	FS 2011	FS 2010	FS 2009	GM 2011	GM 2010	GM 2009	EI 2011	EI 2010	EI 2009	Average
1	Hermann Dönnhoff	Nahe	5	5	5	5	5	5	5	5	5	5
1	Keller	Rheinhessen	5	5	5	5	5	5	5	5	5	5
1	Robert Weil	Rheingau	5	5	5	5	5	5	5	5	5	5
1	Egon Müller Scharzhof	Mosel	5	5	5	5	5	5				5
2	Emrich-Schönleber	Nahe	5	4.5	4.5	5	5	5	5	5	5	5
3	Knipser	Pfalz	5	5	5	5	4	4	5	5	5	4.89
3	Bernhard Huber	Baden	4.5	4.5	4	5	5	5	5	5	5	4.78
4	Fritz Haag	Mosel	5	5	5	5	5	5	4	4	4	4.78
4	Joh. Jos. Prüm	Mosel	5	5	5	5	5	5	4	4	4	4.67
4	Ökonomierat Rebholz	Pfalz	4.5	4.5	4.5	5	5	5	4.5	4.5	4.5	4.67
4	Rudolf Fürst	Franken	5	5	5	4	4	4	5	5	5	4.67
4	Wittmann	Rheinhessen	5	5	5	4	4	4	5	5	5	4.67
5	Horst Sauer	Franken	5	5	4.5	4	4	4	5	5	5	4.61
6	Dr. Heger	Baden	4.5	4.5	4.5	4	4	4	5	5	5	4.5
6	Schäfer-Fröhlich	Nahe	4.5	4.5	4.5	4	4	4	5	5	5	4.5
6	Koehler-Ruprecht	Pfalz	4.5	4.5	4.5	4	4	4	5	5	5	4.5
7	Georg Breuer	Rheingau	4	4	4.5	4	4	4	5	5	5	4.39
8	Willi Schaefer	Mosel	4	4	4	4	4	4	5	5	5	4.33
8	Selbach-Oster	Mosel	4	4	4	4	4	4	5	5	5	4.33
9	Sankt Urbans-Hof	Mosel	5	5	4.5	4	4	4	4	4	4	4.28
9	Josef Leitz	Rheingau	4	4	4.5	4	4	4	5	5	5	4.28
10	Meyer-Näkel	Ahr	4.5	4.5	4.5	4	4	4	4.5	4	4	4.22
10	Dr. Loosen	Mosel	5	5	5	4	4	5	3	3	4	4.22
10	Christmann	Pfalz	4.5	4	4	4	4	4	4.5	4.5	4.5	4.22

Figure 2: Top wineries across guides

Spearman-Rho correlation of price and quality assessment proves significant with a value of 0.54.

Regional origination, our antecedent variable for collective reputation, certainly matters in the wine industry (Veale and Quester 2008, D'Alessandro and Pecotich 2013; Sutanonpaiboon and Atkin 2012). Germany produces wine in thirteen regions that differ in various aspects such as production capacity, average yield, varietals, producer concentration, penetration by cooperatives, consumer preferences etc.. Our quality proxy as mean judgments for all regions and all years nominates Ahr, Mosel and Rheingau to qualify as the top quality regions. Their average scores on the five-point scales are higher than 2.0. There is a wide gap to the laggard Saale-Unstrut at the bottom place scoring only 1.2 (See figure 3). Rheinhessen and Sachsen also score low in average quality.

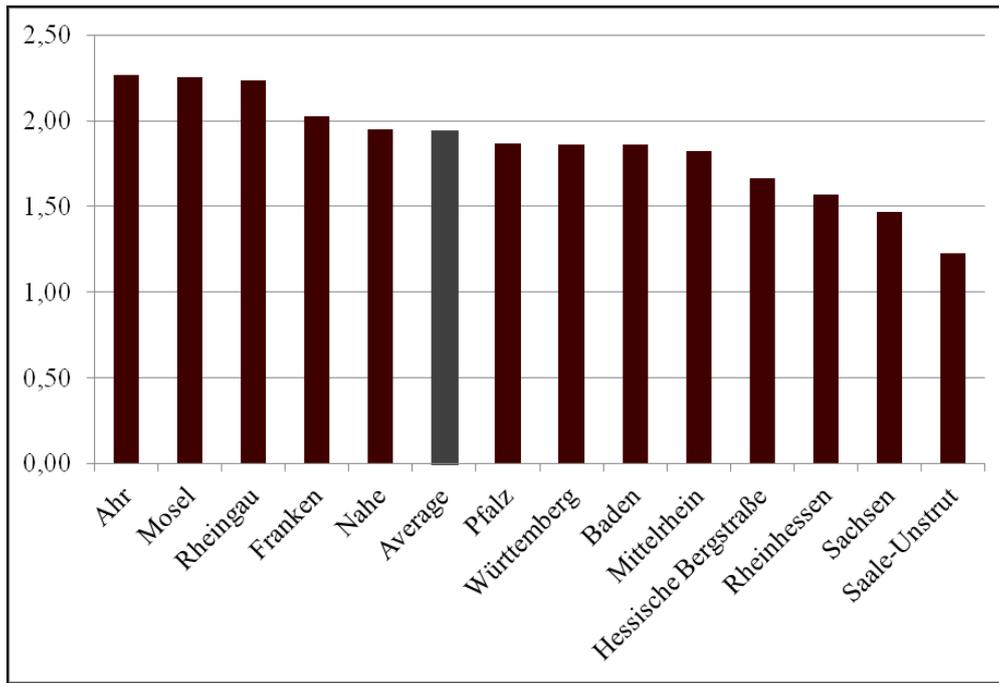


Figure 3: Quality perception of the wine regions

Indeed, the variation of the regional rankings across the guides and the years is low. Kendall's coefficient of concordance equals 0.82 with high significance. One might expect that quality judgments depend on region reputation that are impacted by size. The underlying hypothesis could be that larger regions are dominant and possess more marketing power to create higher awareness in consumer minds. A contrary hypothesis would be that smaller wine regions are determined as quality regions also due to scarcity. Our data does not support those hypotheses. There is no correlation of regional size and quality assessment (see fig. 4). Indeed, the calculated correlation is only 0.176.

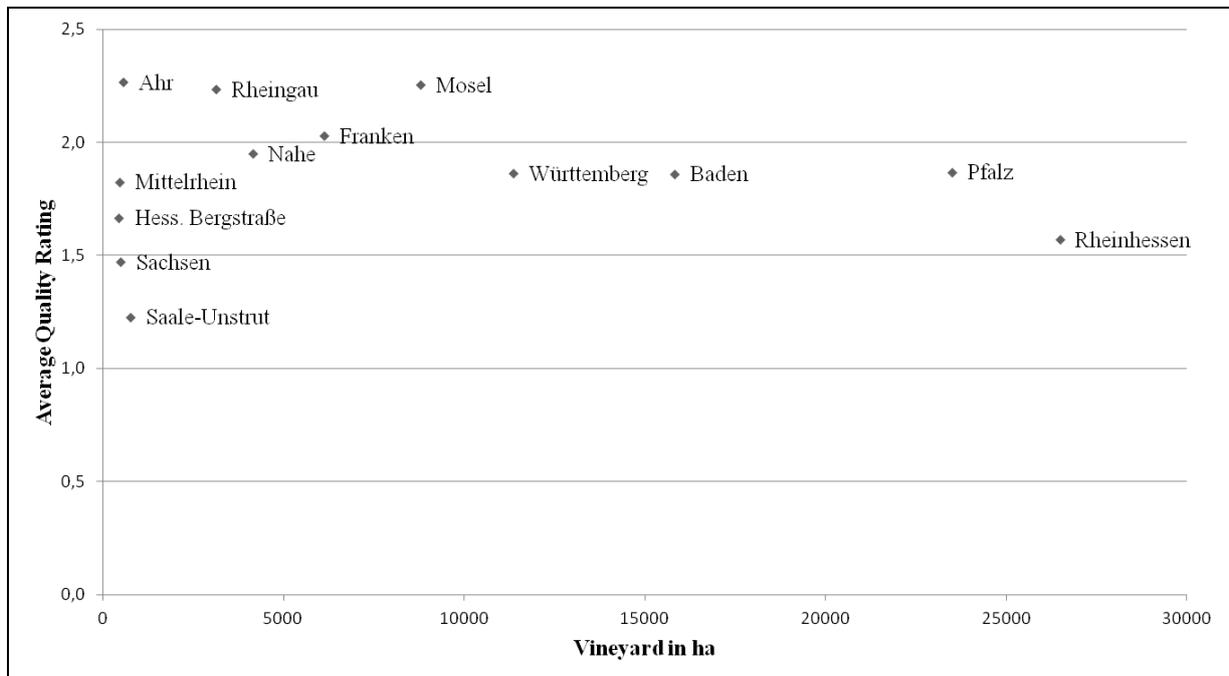


Figure 4: Size vs. quality – regional correlation analysis

Figure 5 shows that there is a spread of prices depending on regions. Rheingau, Mosel, and Ahr lead the price positioning. Mittelrhein and Saale-Unstrut are at the bottom end with a

wide price gap to the leading regions. The leading wine regions are asking double of what the lagging regions state as prices for their wines.

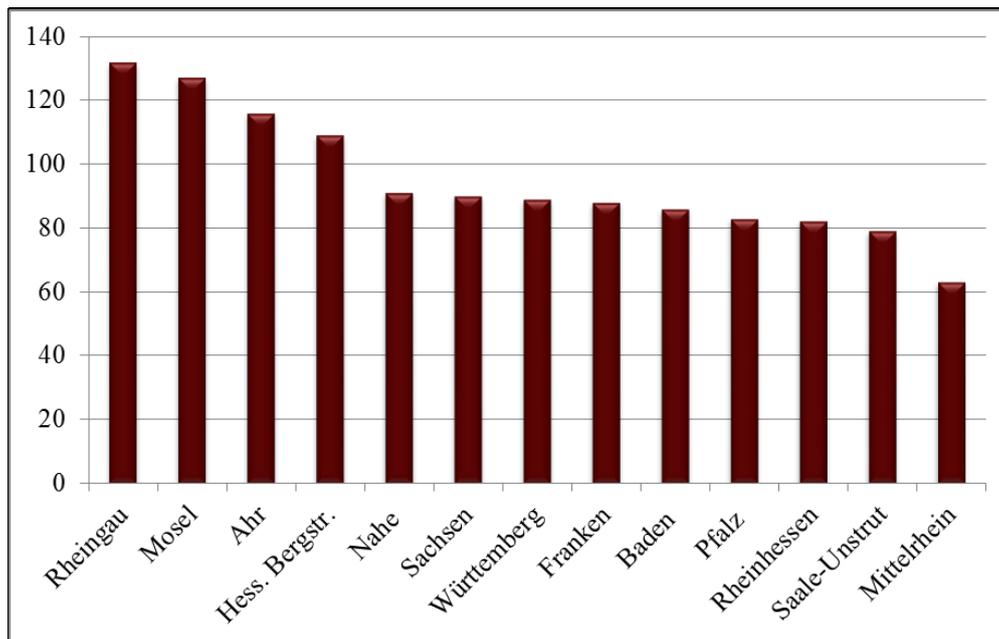


Figure 5: Regional price comparison - indexed

The price-quality matrix (see figure 6) illustrates that quality correlates with prices under a regional perspective. R^2 is 0,63. Costs of production (comparison on the basis of costs per hectar) are not the relevant driver for prices. Mittelrhein shows the highest costs of production in a regional cost comparison but realizes lowest price levels in the database, Rheinhessen with very low production costs ranks also low in pricing, meanwhile Nahe is characterized by low production cost but realizes higher prices. (Kranich and Oberhofer 2014)

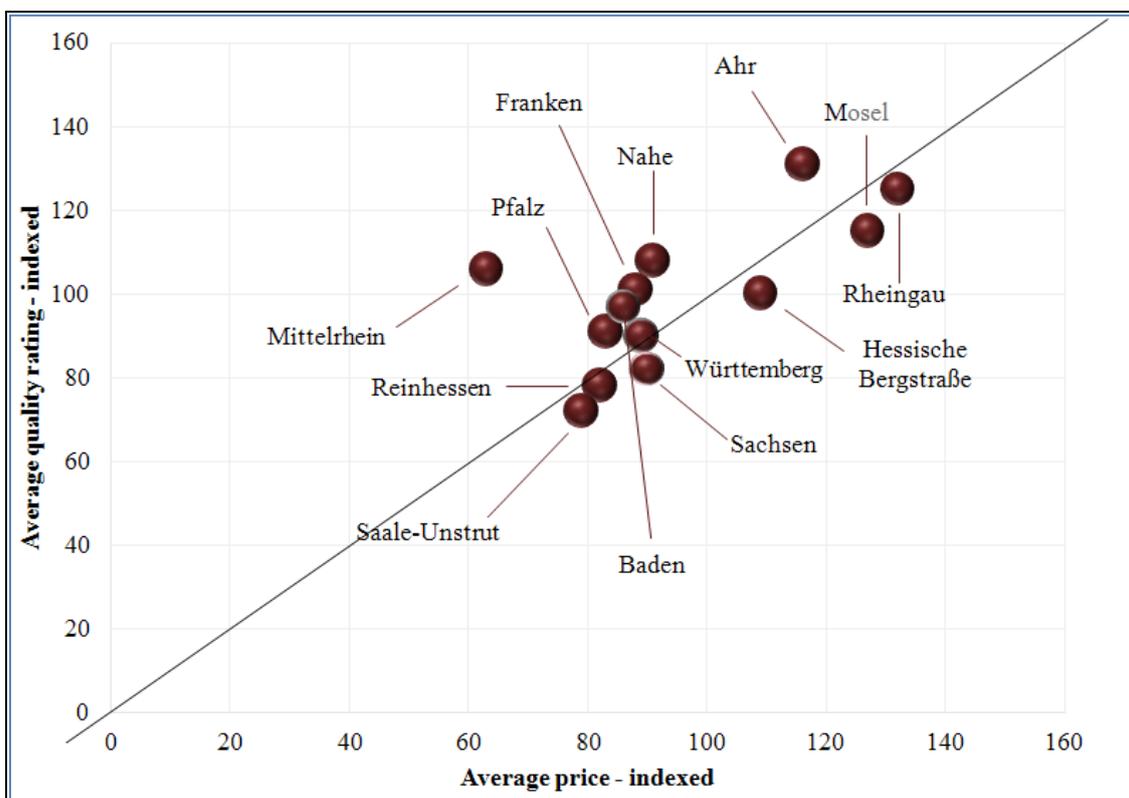


Figure 6: Regional (collective) reputation: price/quality matrix

Investigating the population of outstanding wineries Rheinhessen, Rheingau, Nahe and Mosel are all represented by estates that possess top ratings in every guide and year (equivalent of 5 points) with Baden and Pfalz at almost same level (4.8 points). For the regions Hessische Bergstraße, Saale-Unstrut and Sachsen the best wineries only reach scores of 2.2 to 2.6 points.

One success factor to build reputation and become recognized by the guides identified in past research was the membership of the estates in closed quality circles. (Frick 2004, Rössel, et al. 2012, Frick, et al. 2013). Indeed, a strong representation of wineries with membership to the restricted “Association of German Quality Wine Estates” (VDP) in the recommended population is striking. With 176 VDP-wineries our database contains 90 % of the VDP-winegrowers in Germany. Within the generated “top 10 ranking” 100% belong to VDP and for the top 25 90%, demonstrating the importance of the membership in the premium wine market. In regards to differences between VDP and Non-VDP-members the database delivers further insights. Wineries belonging to the association reach an average of quality 3.05 points overall, 2.76 points in “FS”, 2.95 points in “GM” and 3.50 points in “EI”. The population not belonging to that closed circle only achieves mean evaluations of 1.24 points overall, 1.22 points in “FS”, 1.45 points in “GM” and 2.24 points in “EI”. Looking at the price performance in the database VDP-members generate in average a price premium of 15.30 € compared to Non-VDP-members. They ask for double the prices of the non-member population. In an OLS regression analysis VDP membership proves highly significant for quality as well as for price with standardized regression coefficients of .51 and .34 respectively and thereby offering highest explanatory value of all tested variables in the model.

6. RESULTS DISCUSSION

Despite different assessment models and procedures the three analyzed wine guides provide solid information on German wineries and deliver a rather homogeneous judgment of the wineries with business to consumer sales. Therefore, each guide is generally suited for firm-reputation building and reputation communication. Wineries apparently can pursue different strategies when using guides for reputation building. Meanwhile a higher average judgment might justify to prioritize such a guide to enter and then achieve a higher grading it bears the risk that in order to position within the guide’s recommendations and therefore to create an “above average quality recognition” one needs to outperform a larger number of competitors. Since Eichelmann shows highest average quality rewards this guide might represent the most efficient approach to gain quickly a higher level of recognition. Feinschmecker with its lowest volatility of the three guides could be appropriate when searching predominantly for consistency. Gault Millau seems more active in reassessing the wineries with upgrades exceeding downgrades, therefore providing the opportunity to quickly or consistently climb in the rankings. These observations might also be interpreted that GM could be most critical of the guides.

Since volatility is smaller than expected entry into and climbing within the hall of fame of recognized wineries seem to be more challenging than remaining at once earned judgments. This observation is supported comparing our data to historic distribution. Ten years ago, Feinschmecker awarded 300 wineries – about a third of today. More than 5% received the very top rating (Frick 2004). In today’s population of the guide with more than three-times of population about the same number of wineries receive top quality recognition but represent less than 2% of the published wineries. Overcoming the entry barrier is the challenge and therefore represents a risk of investment. As population of the recommended wineries is expanded the barrier especially applies for the top end premium. The challenge seems rather to enter that first tier acknowledgment than keeping once earned honors for the wineries. Up- and downgrades might not be caused by changes in underlying quality of the winery but root in actual presence in the press or media. Hence, impacting the judgments of the guides is not

restricted on product quality (wine) management but is rather a result of holistic, strategic management of the winery.

Our data does not allow to judge on ROI of the underlying activities. A positive correlation of prices and quality recognition indicates value-creation but the extent is neither striking nor is it sufficiently reliable applying industry knowledge and especially pricing backgrounds. The analyzed population needs to be compared to the non-recognized population. As the average calculated price level in the database with more than 18 Euros per bottle is more than triple the communicated average price in B2C wine business in Germany (DWI 2013) one might quickly state that the firm reputation via guide recognition pays off. But firstly, the prices are not directly comparable (e.g. price list versus realized prices), secondly the costs of recognition building are not reflected and thirdly the causality of “wine guide recognition” and “pricing” is not transparent. Still, for the time being getting recognized by the wine guides seems to require a rather small investments (contacting, free-bottles for tasting, networking ...). Therefore a reasonable vehicle when pursuing strategic positioning on quality and reputation.

The data supports the notion of relevance of collective reputation. Region impacts quality assessments. It does not seem to be a result of size nor costs of production but rather historically affected perception (Trick 2009, DWI 2013). Since our data is limited to a three year period we extended the time horizon by integrating published study results. Comparing our observations with a study realized ten years ago (Frick 2004) on the basis of 1996 to 99 observations supports the notion of long-term regional quality perceptions. Pearson correlation for the quality assessments of the two datasets results in 0.78 and applying Spearman correlation turns out at 0.74. Looking at the quality/price matrix (figure 6) most regions seem to price according to the perceived quality of the region. Apparently, Mittelrhein is not exploiting their price potential considering their quality or reputation level. Mosel, Rheingau, and Hessische Bergstraße seem to slightly overprice meanwhile Ahr and Nahe might still be able to grow in quality reputation without jeopardizing the price-value levels. Overall, quality and price judgments support that regions impact reputation and that such origin of reputation matters and lasts. For individual estates located in lower valued regions building reputation is more of a challenge than estates located in the historic wine quality regions. (Kotha, et al. 2001) The top ranked quality regions profit of a longstanding history of higher reputation. But as several top performing estates stem from average or lower valued regions individual performance and supporting strategies allow to overcome regional and therefore collective boundaries, requiring additional efforts and investments for firm reputation.

Our observations in regards to the success factor to be member in a closed circle (VDP) contributes further to the theory in regards to collective reputation. The identified higher explanatory value of VDP ownership compared to regional factors might reflect that free-ridership can hamper collective reputation. Why investing if one earns equal profit without it? Regional collective reputation can suffer since wineries might profit of free-ridership without according investment. Individual wineries profit in case of a regional efforts to increase quality or gain in regional attractiveness. In case of closed quality circles with smaller membership and more transparency of individual behavior free-ridership is massively reduced. (Visser and Langen 2006, Castriota and Delmastro 2008, Kaiser 2008, Cardebat and Figuet 2013, Frick and Simmons 2013) As a result, we identify stronger impact of VDP membership, especially for prices than of the regional variables. But profiting of such reputational effects requires substantial investments and activities. The access to VDP is highly restricted and members are checked for their constant quality delivery according to the membership rules.

Limitations of our study are manifold. The population of reputed wineries is not exhaustive since some wineries with high reputation avoid being qualified and later published by wine guides. Furthermore, the communicated prices represent different wines and categories and are just stated sales prices. They serve rather as approximation for pricing levels and performance. Besides the quantitatively expressed rankings the guides allow additional reputation building and profiling that is not fully reflected by our focus on communicated rankings. They provide space for individual positioning (pictures, storyline, vintner of the year, vintner for certain wines ...) and wineries use the publications for communication. The wine consumer population relying on the guides does not represent the average wine consumer. We will extend the database to apply more multivariate analyses as well as an extended time period. As a result, the complexity of success factors will be better reflected in quantitative modeling and additional antecedents such as membership or ownership.

7. CONCLUSION

Wine consumers rely on expert ratings and supplier's reputation. In Germany, three wine guides "Feinschmecker", "Gault Millau" and "Eichelmann" claim relevance in reputation building and communication. Analyzing the guides on the performance indicators quality and price contributes to the theory of reputation and delivers managerial advice for practitioners. The underlying data supports that regional reputation as well as firm reputation matter despite indications for wine and winery judges' bias, the extensive and increasing population of wineries published by the guides, and the coexistence of additional private and official judgments might decrease the value of individual awards or quality ranks. Wineries need to be aware of apparent entry barriers to the top level of the judgments. Restricted dynamics in the top 25 list and little dynamism in the overall judgments decrease the risk of follow-up investments after successful entry. A strategic approach with adequate communication seems of paramount importance. The analysis confirms selective success factors but also that more reputation effects require higher investments: VDP-membership impacts the probability for top positioning and price premium. Our findings thereby contribute additionally to the notion of collective reputation and provide evidence in the context of free-ridership since the closed membership and smaller membership circle proofs higher impact on the performance variables. We are expanding the analyzed population, years observed, and price information. That will allow to analyze for additional antecedent variables, such as ownership, strategic orientation, or other memberships (e.g. biological orientation).

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International Analysis of the Profitability of Wine Grape Production

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Abstract

◦*Purpose: Wine production worldwide has changed over the past decades. The production of traditional wine countries in Europe such as France and Italy as well as in Argentina has stagnated or decreased. Contrary Spain, the USA, China, Chile, Australia and New Zealand as well as South Africa increased their supply. In total overall wine production and trade increased. Therefore, international comparisons of competitiveness and profitability of wine grape production are of great interest to growers, processors, traders and also political decision makers. For this reason the objective of this paper is to identify the different systems of wine grape production in internationally important growing regions, their profitability, the driving forces behind and their perspectives.*

◦*Design/methodology/approach: Standardized methods using the typical farm approach are applied. Typical wine farms are established by partners of the agri benchmark network, drawing on the expertise of farm advisors and farmer groups and complemented with available statistics. A typical farm represents a vineyard in a specific region with its regionally typical size, structure, production and marketing systems. It includes physical-technical and economic parameters to calculate cost of production, gross margin, profitability and productivities, among others. Once established, the data are updated annually to reflect changes in input and output prices and in production technologies.*

◦*Findings: The presented results so far cover 11 different production regions in Europe, South Africa and Australia. The network aims at expanding coverage to include all interested and relevant wine growing regions of the world.*

Key words: typical farm, cost of wine grape production, profitability, competitiveness, *agri benchmark*

1. INTRODUCTION

Wine production worldwide has changed over the past decades. Although global production has remained rather stable since the 1990ies, the statistics show major shifts in producing countries (FAOstat, 2014). Further, the wine sector has undergone a rapid globalization. This is in particular shown in the growing share of global wine production volumes being traded and the countries of the New World becoming more important players (Anderson and Nelgen, 2011).

The competitiveness of different countries in an agricultural sub-sector such as wine production depends on a number of factors, including infrastructure for processing, transport and marketing, value chain organization as well as the legal, financial and institutional framework. However, as for other agricultural crops, the production conditions due to climate, soil and farm structures differ widely between the wine producing countries. Hence, the profitability of different production systems is a particularly important factor for the international competitiveness of wine and wine grape production respectively. The benchmarking of production systems based on the costs of production is of interest for producers and other stakeholders of the value chain as well as policy makers in order to identify potential areas for improvement.

This paper presents a network approach for the international comparison of profitability in the wine grape production, based on the analysis of typical farms. In particular we are comparing the production of grapes which will be further processed into quality bulk wine that is comparable and internationally traded. First, an overview of global trends in wine grape production and trade is presented. In the following section, the methods are presented, which are applied in a standardized procedure in order to ensure comparability of results for all participating countries. In the fourth section, first results of the recently established *agri benchmark* network are presented and discussed. Finally, conclusions are drawn on the relevance of benchmarking results and benefits of expanding the network to include more countries are discussed.

2. GLOBAL TRENDS IN WINE PRODUCTION AND TRADE

A first overview of global wine production can be found in the databases of FAOstat, where wine production data are available from 1963 onwards (FAOstat, 2014). Over the past 50 years, global wine production increased from about 27 million tonnes in the beginning of the 1960s until the early 1980s with peaks of up to 35-37 million tonnes of wine annually (see Figure 1). During the last 20 years however, global production reduced again to about the initial level and averaged between 25 and 30 million tonnes per year.

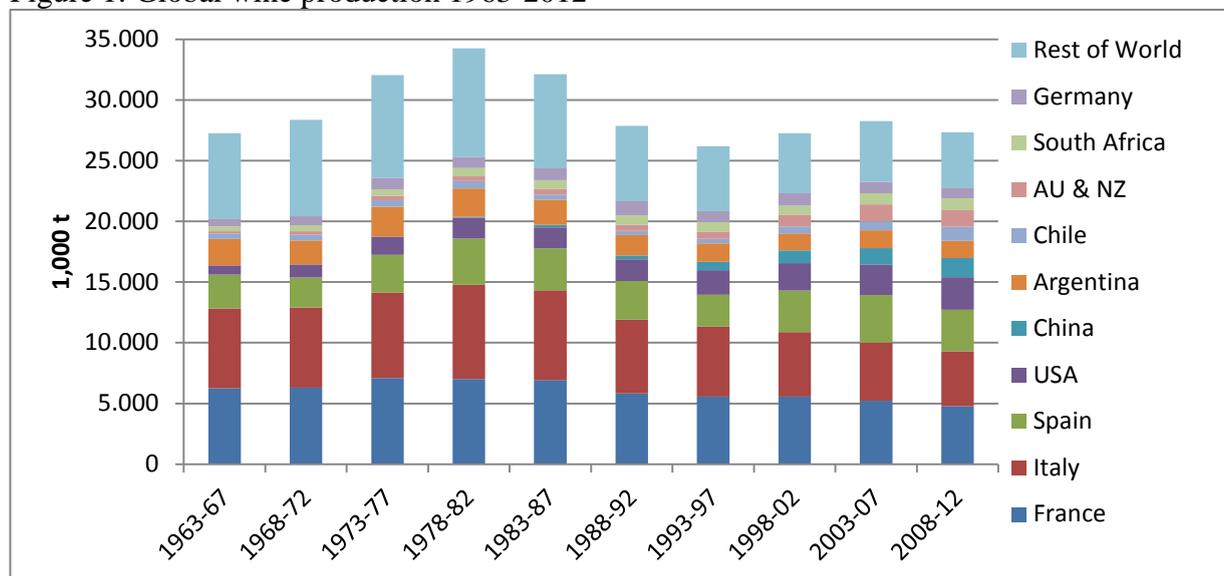
Since the 1960s the three major producers France, Italy and Spain have been dominating the global wine production, together accounting for 47-57 % of global production. However, Figure 1 and Table 1 reveal that over time the production volumes and also relative production shares in France and Italy diminished. During the mentioned period France and Italy reduced their production from 6-7 million tonnes annually (each 22-24 %) to less than 5 million tonnes (17 %). Contrary, Spain managed to increase its production to more than 3 million tonnes, now representing about 13 % of global production.

The USA more than tripled its wine production and continuously increased its market share from 3 % to 10 %. China's wine production was recorded for the first time in 1978. During the last years it reached more than 1.5 million tonnes. Thus, it now accounts for 6 % of global wine production, thus ranking 5th in total production. While Chile could augment its production to more than 1 million tonne, Argentina's production dropped by one third to less than 1.5 million. Even though the production of Australia and New Zealand grew almost eightfold, and South Africa's more than doubled, their wine production amounts to only around 1 million

tonne each and thus reach a share of 4-5 % globally. Over the last decades Germany's production has been fluctuating between 0.9 and 1 million tonnes.

The data shows that traditional wine producing countries have manifested their position although new countries outside Europe became more important. In this way the wine production of other countries in the rest of the world reduced from 26 % to 17 % and the sector became more concentrated.

Figure 1: Global wine production 1963-2012



Source: 5 year averages based on FAOstat 2014, correction made for Germany in 2012.

Table 1: Relative shares in global wine production between 1963 and 2012

	63-67	68-72	73-77	78-82	83-87	88-92	93-97	98-02	03-07	08-12
France	23%	22%	22%	20%	22%	21%	21%	20%	18%	17%
Italy	24%	23%	22%	23%	23%	22%	22%	20%	17%	17%
Spain	10%	9%	10%	11%	11%	11%	10%	12%	14%	12%
USA	3%	4%	5%	5%	5%	6%	8%	8%	9%	10%
China	0%	0%	0%	0%	1%	1%	3%	4%	5%	6%
Argentina	8%	7%	8%	7%	6%	6%	6%	5%	5%	5%
Chile	2%	2%	2%	2%	1%	1%	1%	2%	3%	4%
AU & NZ	1%	1%	1%	1%	1%	2%	2%	4%	5%	5%
South Africa	1%	2%	2%	2%	2%	3%	3%	3%	3%	4%
Germany	2%	3%	3%	3%	3%	4%	3%	4%	3%	3%
Rest of World	26%	28%	26%	26%	24%	22%	20%	18%	18%	17%

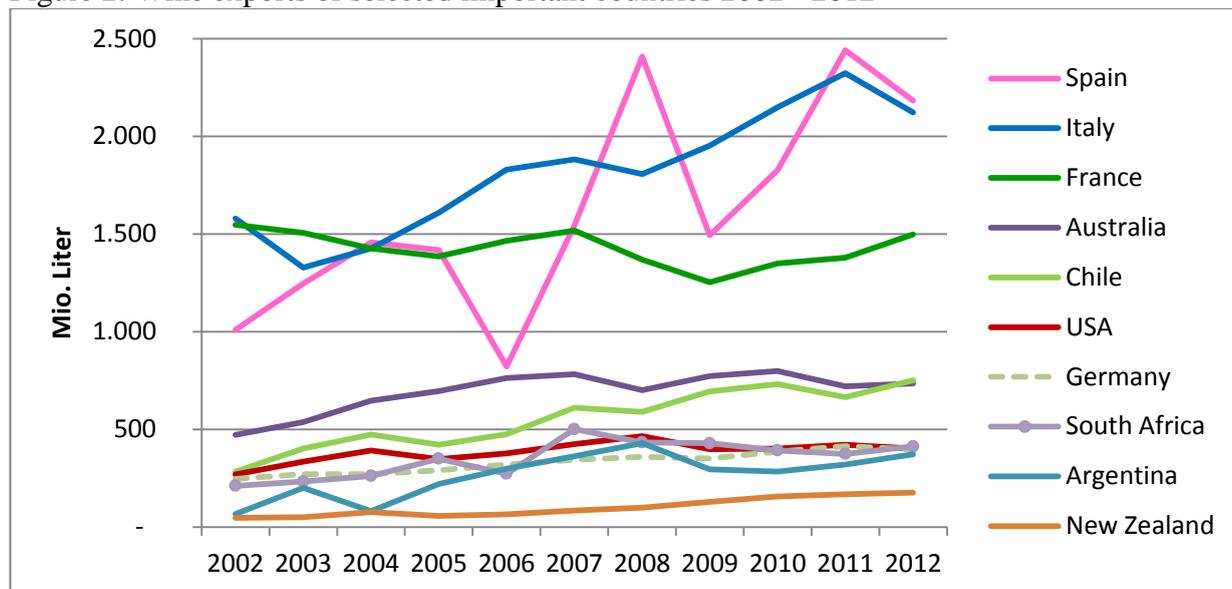
Source: 5 year averages based on FAOstat 2014.

Corresponding to the shifts between countries in wine production, also international trade has changed in the past. Analysis of UN Comtrade data reveals that worldwide both, wine exports and imports, increased during the last decade (see Figure 2; Anderson and Nelgen, 2011).

The three major wine producers France, Italy and Spain are at the same time the largest wine exporters with volumes fluctuating between 1 and 2.5 million litres. As their imports are rather limited, all show a positive trade balance. Although the wine consumption in New World countries is partially growing, it is still at a rather low level and thus enabling countries such as Chile, Australia, New Zealand and South Africa to export 50-70 % of their national wine

production (Anderson and Nelgen, 2011).

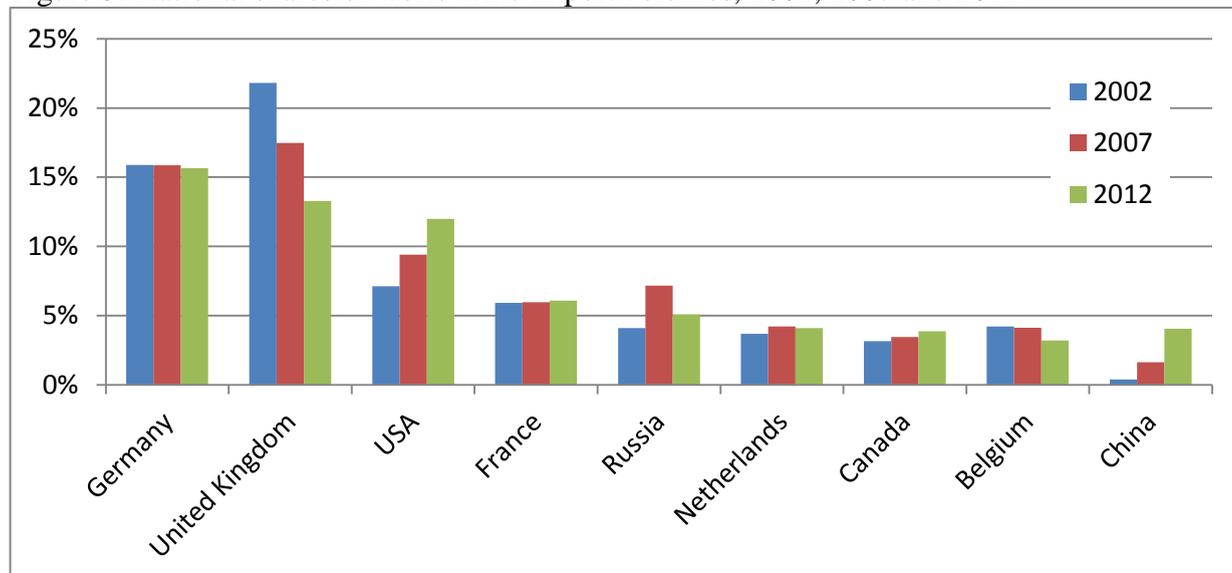
Figure 2: Wine exports of selected important countries 2002 - 2012



Source: UNComtrade 2014, wine of fresh grapes including fortified wine, exports to world.

Only nine countries together import two thirds of the globally traded wine volumes (see Figure 3). Though Germany, USA and France all produce wine in large quantities, at the same time they import relevant wine volumes in order to satisfy their large national consumptions. Russia and China are the two only non-OECD countries in that group of important wine importers. Both countries possess of a growing middle and upper class which fosters a growing wine demand. In 2012, China imported almost 400 million liters of wine, which is 13 times more than 10 years ago.

Figure 3: National shares of world wine import volumes, 2002, 2007 and 2012



Source: own analysis based on UNComtrade 2014, wine of fresh grapes including fortified wine, national imports from world.

In order to understand and explain these shifts at the level of the national wine sector, in the following sections, the profitability of wine grape production at farm level is addressed in a comprehensive approach.

3. TYPICAL FARM APPROACH

The costs of production at farm level are a basic indicator for comparing the competitiveness and profitability between production regions and countries. Though information on costs of production of wine grapes may be available in different countries (for example Shaffer and White, 2006), an international comparison is not possible, if cost estimates are based on different methodologies or even different reference years (Isermeyer, 2012). Therefore, in the *agri benchmark* network, standardized methods are applied for data collection and analysis in order to establish an internationally harmonized database. The data collection procedure is based on the typical farm approach.

A typical farm is a farm model representing the prevailing type of a farm in a certain region with regards to farm type, size, enterprise combination, resource endowment and production system (Hemme, 2000). The typical farms are established based on the analysis of a range of data sources, such as farm accountancy networks, official statistics, technical publications, regional databases and expert knowledge of advisors and researchers. Once the first blueprint of a farm model, typical for the selected region, is defined, it is discussed, adapted and validated in panel sessions (= focus group discussions) with regional farmers, advisors and scientists (Deblitz and Zimmer, 2005). Thus, typical farms are modelled farms but based on data and experiences of real existing farms. The calculation of economic performance indicators for a typical farm provides the basis to assess and compare the cost structure of different production systems and regions.

Table 2: Typical farm vs. average and individual farm data

Characteristics	Individual Farm Data	Average Farm Data (surveys)	Typical Farm
Representativeness	-	+	+/-
Consistency of the data set	+	-	+
Quantity structure	+	-	+
Data availability	+	+/-	+
Up-to-date data	+	-	+
Data confidentiality	-	+	+
Feasibility of data collection	+	-	+
Cost of data collection	+/-	+/-	+

+ = strength of sample method, - = weakness of sample method.

Source: Deblitz, 2010.

Following Deblitz (2010) compared to other methods of data collection, typical farms possess the advantages of an individual farm specific analysis such as consistency of the data set, quantity structure of in- and outputs and up-dated information without the drawback of confidentiality concerns when using individual farm data (see Table 2). However, although statistics are used in the setup and definition in order to capture a major part of production,

typical farms are not representative in a statistical sense, like e.g. average farms based on survey data. However, datasets from surveys often are not consistent and do not allow to construct the production system with its quantity structure. Farm surveys are very costly and hence rarely up-dated regularly, while typical farms are a cost efficient method of data collection. Regular up-dating through farm advisors and farmer panels is inexpensive.

In the *agri benchmark* network, the typical farm approach is implemented in collaboration with network partners such as research institutes and farm advisors in the respective production regions (Garming and Bravin, 2014). Wine grape production systems can be extremely heterogeneous even within a defined region, depending on target market and specialized qualities. Therefore, the benchmarking of wine grape production so far focusses on grape production for a defined and comparable bulk wine quality, which has a major share in internationally traded wines.

A typical wine grape farm is modelled as specialized farm, which should be large enough to sustain at least one full-time laborer. If diversified farms with other crops are typical for the production region, only wine grape production is modelled in detail and shared farm resources are considered corresponding to their utilization for wine grapes. The analysis is carried out variety-specific, i.e. each grape variety is considered as separate crop for cost allocation. This allows accounting for variety specific prices for vines, yields, differences in crop management as well as in output prices. Also, different age phases, particularly the establishment phase of the vineyard are taken into account by allocating a share of production area to renewal of vineyards, thus reflecting the regionally typical average age structure of the varieties and their utilization periods.

Given that data is collected at a very detailed, crop and age specific level any kind of economic indicator can be computed for the entire farm, per hectare, per tonne or for specific varieties. Common outputs of the analyses are input costs, yield levels, product prices, productivities, revenues, gross margins and profits among others. Any kind of economically relevant key figure may be extracted from this farm level analysis of typical farms.

4. RESULTS

The *agri benchmark* network so far covers 11 different wine production regions in six countries in Europe, South Africa and Australia (Table 3). In most participating countries two typical farms have been established, in Germany so far only one and in Spain even three. The size of the typical farms ranges between 5 ha in the Italian Emilia Romagna and 130 ha in the La Mancha region of Spain. The cultivated vine varieties are very divers and include both international (Cabernet Sauvignon, Shiraz, Merlot, Chardonnay) as well as local varieties such as Carignan in France, Riesling in Germany, Sangiovese and Prosecco in Italy, Tempranillo and Airen in Spain as well as Chenin Blanc in South Africa. Out of the 12 farms established so far, 10 farms produce wine grapes and sell them to cooperatives or other buyers, mainly under contract or on the spot market. The remaining 2 farms further process the wine grapes on farm into bulk wine (FR20L) and packaged wine (IT10V). However wine making is not considered in the analysis.

The presented analyses of the typical farm cost structure and profitability are calculated as farm averages across all vine varieties and also all age phases, comprising newly established vineyards without any harvest, vineyards growing up and full-bearing vineyards. The reference year, if not mentioned otherwise, is 2011 which means the grape harvest in the year 2011 both on the northern and southern hemisphere.

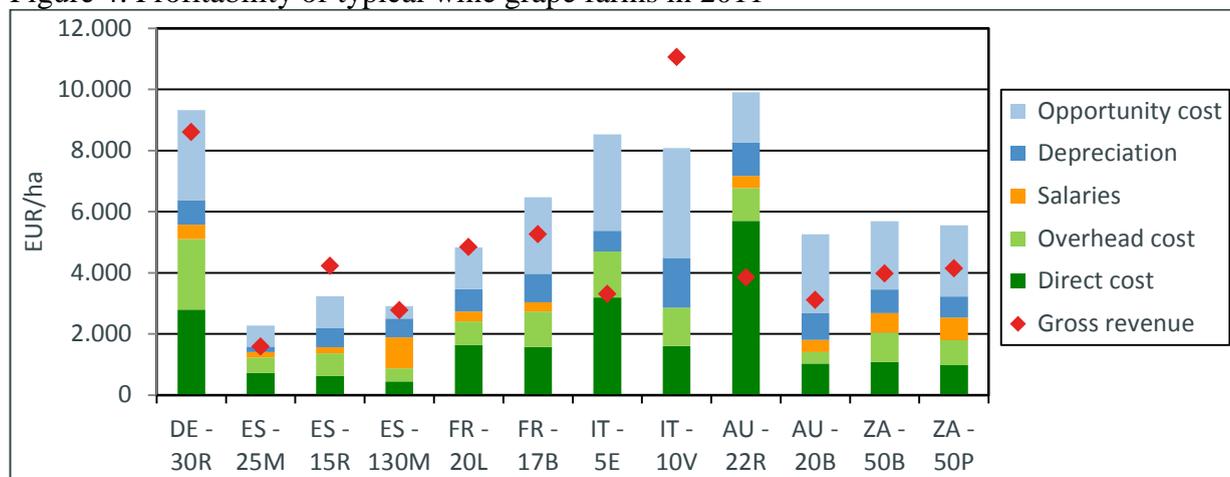
Table 3: Overview of the typical wine grape farms

	Country	Region	Farm name	ha	total yield 2011, t	3 top varieties
Europe	Germany	Rheinhessen	DE30R	30	349	Müller Thurgau, Riesling, Dornfelder
	Spain	La Mancha	ES25M	25	173	Tempranillo, Airen
		Rioja	ES15R	15	98	Tempranillo
		La Mancha	ES130M	130	1,316	Tempranillo, Shiraz, Merlot
	France	Languedoc	FRL20	20	184	Shiraz, Merlot, Carignan
		Bordeaux	FR17B	17	123	Merlot, Cabernet S. + F.
	Italy	Emilia Romagna	IT5E	5	38	Sangiovese
Veneto		IT10V	10	151	Prosecco, Pinot Grigio, Cabernet S.	
Outside EU	Australia	SA – Riverlands	AU22R	22	415	Chardonnay, Shiraz, Cabernet S.
		SA – Barossa	AU20B	20	103.5	Chardonnay, Shiraz, Cabernet S.
	South Africa	Breedekloof	AU50B	50	923	Chenin Blanc, Colombar, Shiraz
		Paarl	AU50P	50	558	Chenin Blanc, Cabernet S., Shiraz

Source: *agri benchmark* 2014.

Overall profitability of wine grape production has been rather low for the typical farms (Figure 4). The total production costs are very variable across the countries and even between the different regions within a country. While the three Spanish farms produce at lowest costs between 2,300 and 3,200 EUR/ha, the most expensive grape producers, i.e. Italy, Australia and Germany, reach costs between 8.000 and 9.900 EUR/ha.

Figure 4: Profitability of typical wine grape farms in 2011



Source: *agri benchmark* 2014.

Only one Italian (IT10V) and one Spanish (ES15R) farm cover their total cost of production, including opportunity costs, and thus generate a profit from wine grape production in 2011. However, almost all farms cover their cash costs (direct and overhead costs, salaries and depreciation) and at least a part of their opportunity costs. For the Italian farm in Emilia Romagna prices were particularly low with about 380 EUR/t for its only grape variety, Sangiovese. At the same time direct cost are high, driven by the highest pesticide costs (see Figure 7), and thus this typical farm only covers its direct costs in 2011.

The other typical farm with very high economic losses in 2011 is the irrigated Australian farm AU22R, which is situated in the Riverlands. The second Australian farm AU20B is located in a different water catchment. Between 2006 and 2011, the Riverlands experienced an extraordinary drought. In order to secure minimum water flows in the river, the government

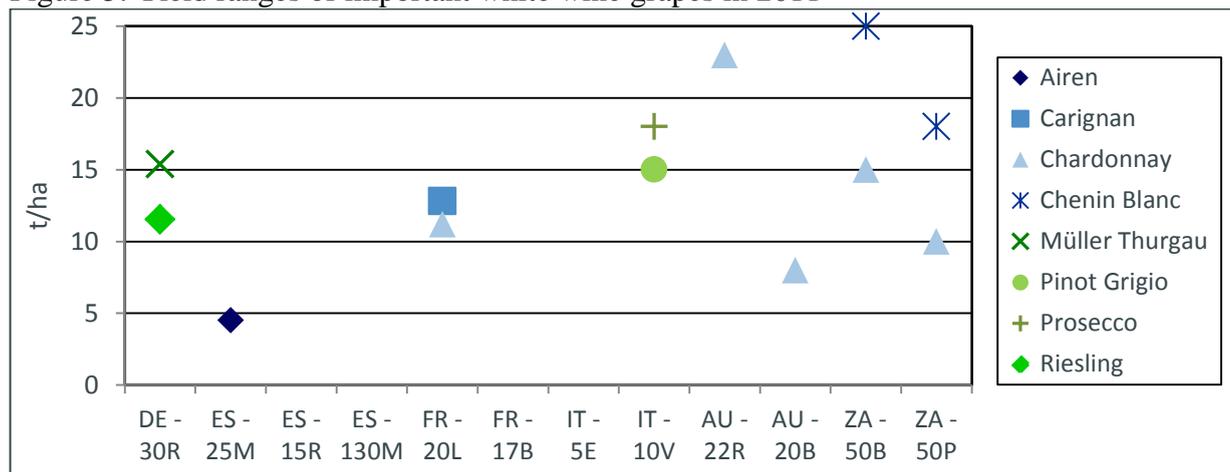
cut the allowance to withdraw irrigation water to only 18-67 % depending on the year. Due to unreliable offers for renting water rights, farmers generally preferred buying permanent rights. To secure their production and the survival of their vineyards farmers were forced to buy additional water rights at very high costs. Thus, in the year 2011 the total variable costs allocated to irrigation were calculated at nearly 3,900 EUR/ha, representing 68 % of the overall direct cost (Figure 4).

Both Italian farms are the only ones not paying any salaries to hired labour (Figure 4). All work on farm is done by family labour whose calculatory costs are part of the opportunity costs. However grape harvest is entirely done by machine, using contractor services whose costs are summed up under direct costs.

Wine grape yields vary largely across the typical farms and between varieties. White wine grape yields tend to be slightly higher than yields of red vine varieties (Figure 5 and 6). As the focus of the analysis is on the production of wine grapes and not on the processed wine figures are shown in t/ha.

In 2011, the yields of the white vine varieties range between 4.5 t/ha (Airen, ES25M) and 25 t/ha for Chenin Blanc in South Africa. The yields of the six red vine varieties analysed are closer together and range between 5 and 20 t/ha.

Figure 5: Yield ranges of important white wine grapes in 2011



Source: *agri benchmark* 2014.

The farm ES25M in La Mancha is a farm in transformation. Airen is still cultivated in goblet without irrigation and are harvested by hand.

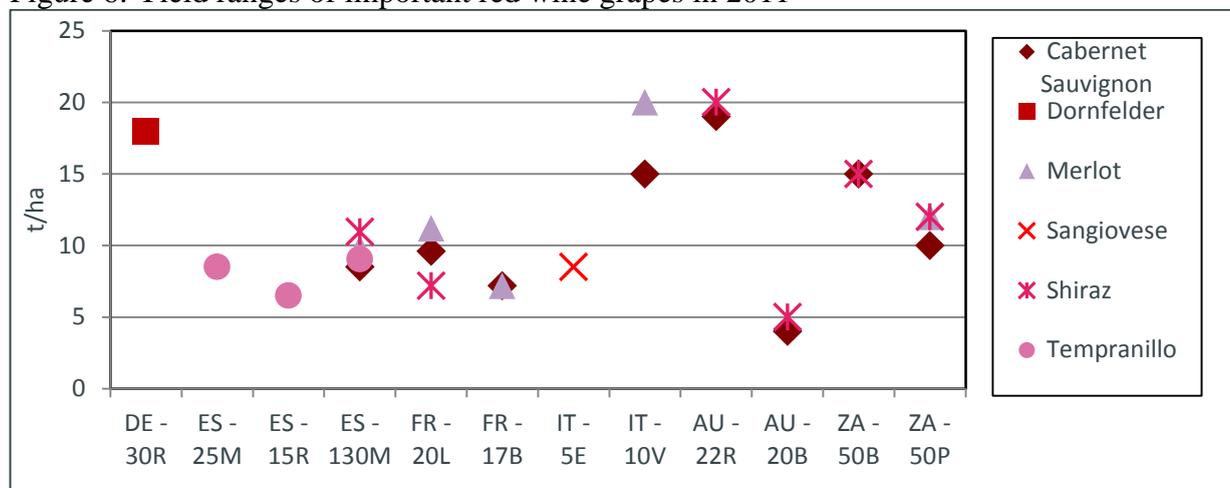
Though cultivating similar varieties, both Australia and South Africa show significant yield differences within their farms. While AU22R is using lots of irrigation and produces grapes for the bulk market, AU20B is situated in the famous Barossa valley, targeting the quality premium market and produces only low yields which are harvested manually. In the Western Cape of South Africa the situation is similar. The higher yielding farm is located in the Breedekloof area, a new upcoming wine growing region managing both high yields and good quality. The farm ZA50P is located in the area of Paarl where the conservative thinking predominates that only low yields can ensure high quality¹.

Overall, yields in the Spanish and French typical farms are rather low, with up to 12 t/ha for

¹ Thus, at the moment the two farms AU22R and ZA50P do actually produce premium qualities that are above the targeted quality bulk wine. As the project continues we will have to adjust the data of these two farms and make them better comparable to the remaining farms in the sample.

the white vine in Languedoc (Carignan, FR20L) and a maximum of 11 t/ha for the red vines. Among the European Farms, the typical Italian farm in Veneto reaches the highest yields.

Figure 6: Yield ranges of important red wine grapes in 2011

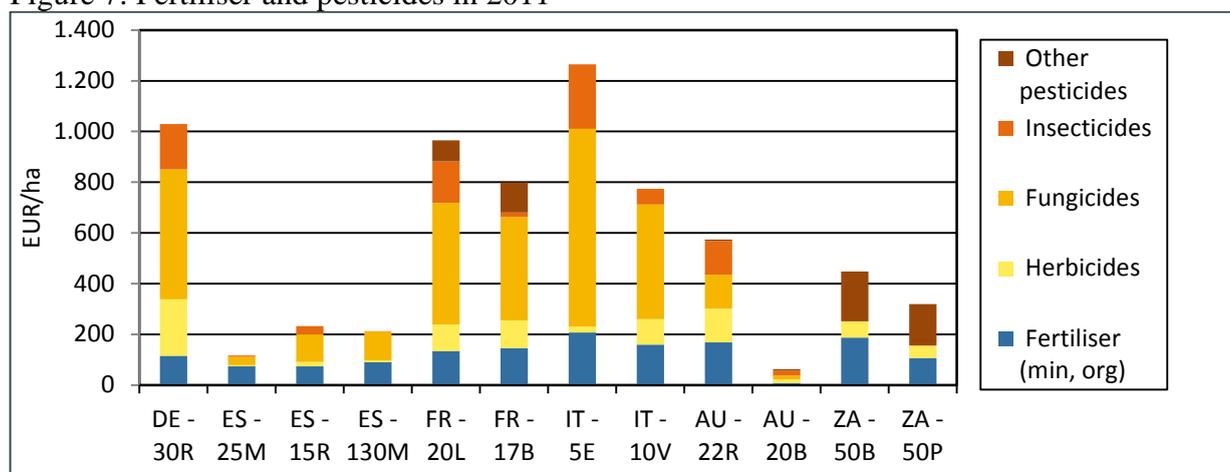


Source: *agri benchmark* 2014.

Fertiliser and pesticide costs cause a major part of the direct costs. They are depicted in Figure 7. Fertiliser costs are rather moderate, ranging from 8 to 208 EUR/ha, as vines are fertilised to only a limited degree compared to other agricultural crops. In these fertiliser costs, costs for mineral and organic fertiliser are summed up together with costs to sow cover crops on the strips.

Pesticide costs show a high variability in the sample. The Australian farm in the Barossa valley (55 EUR/ha) and the Spanish farms (43-158 EUR/ha) spend the least on pesticides which coincides with low yields. Highest pesticide costs were recorded for the Italian, French and German farms (600-1.050 EUR/ha), where fungicides make up 50-70 % of overall pesticide costs. The category “other pesticides” on the South African and French farms comprises spendings on herbicides, fungicides and insecticides together if the costs could not be indicated in a disaggregated way.

Figure 7: Fertiliser and pesticides in 2011

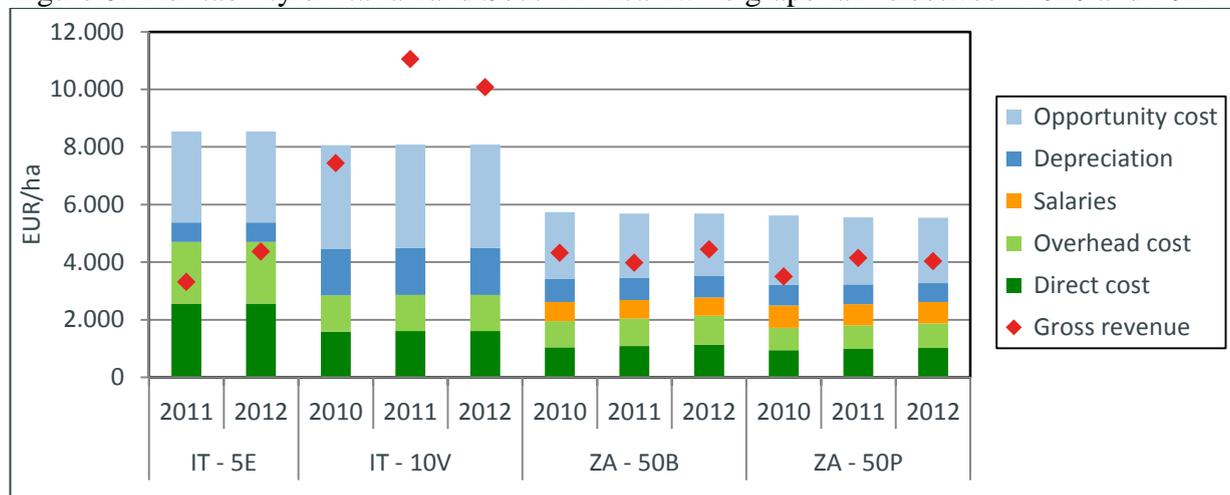


Source: *agri benchmark* 2014.

Figure 8 shows the profitability of the Italian and South African typical farms for more than one year, i.e. for the years 2011, 2012 and where available for 2010. Results in particular show great differences in gross revenue. This is due to changes in output quantity and output

price. For instance, in 2012 the gross revenue was higher than in 2011 in the Italian farm IT5E but in IT10V the opposite was true. In South Africa additionally to changes in yield and market prices important production costs were adjusted with the respective inflation rates. However, part of the effect was eliminated by changes in the exchange rate from South African Rand into Euro so that finally differences in production costs are hardly visible.

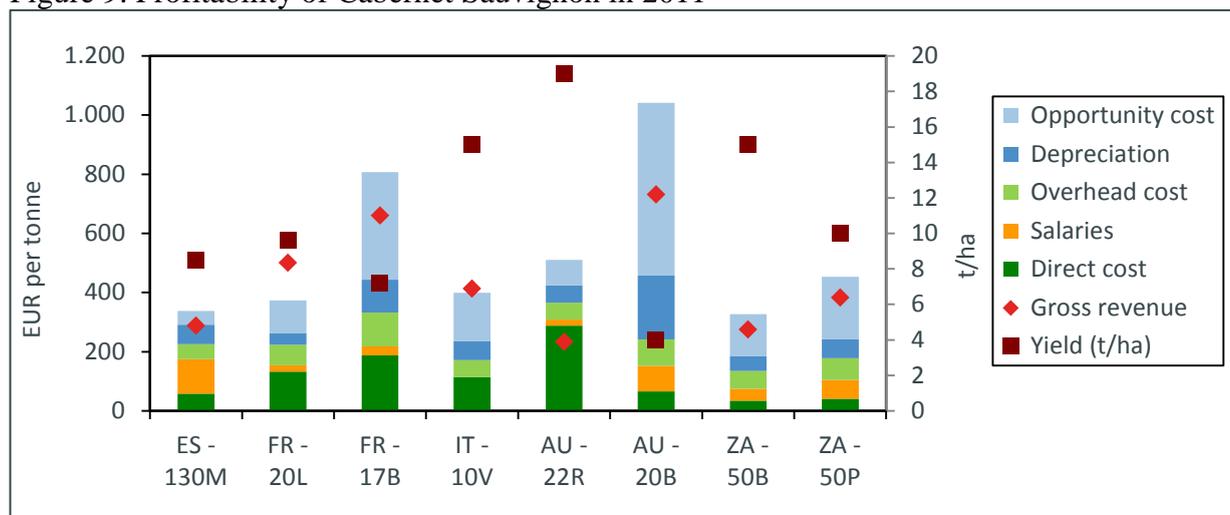
Figure 8: Profitability of Italian and South African wine grape farms between 2010 and 2012



Source: *agri benchmark* 2014.

In wine production and trade, varieties matter a lot. Therefore, comparisons of production costs of specific varieties are an interesting complement to the analysis of competitiveness. Figure 9 presents the costs and gross revenues of one single wine variety, namely Cabernet Sauvignon, grown by 8 typical farms in 5 different countries in the sample. Note that the comparison refers to the output quantity (per tonne) rather than the area related analyses as mentioned above. Hence the gross revenue directly reflects the output price. In addition, the yield level is indicated (on the right axis). For this calculation only the full-bearing vineyards were considered contrary to the analysis presented in the previous figures.

Figure 9: Profitability of Cabernet Sauvignon in 2011



Source: *agri benchmark* 2014.

The specific production costs allocated to Cabernet Sauvignon vary a lot among the farms. While four farms produce at low costs between 325 and 400 EUR/t, the production cost of the

French farm in Bordeaux (FR17B) and the Australian farm in Barossa valley (AU20B) reach 800 and 1,040 EUR/t respectively. These results correspond to the overall profitability of the farms. FR20L and IT10V are the only farms which cover their total costs and generate profits (125 and 14 EUR/t respectively). Overall, some negative correlation between prices and yields can be observed. However, even with similar yield levels of about 10 t/ha, output prices at farm gate can be different and range between 500 and 287 EUR/t for typical farms in France/Languedoc, South Africa/Paarl and Spain/Castilla La Mancha. This shows that besides quality levels also market preferences for different regions have a strong influence on profitability.

5. CONCLUSIONS

The presented results of the *agri benchmark* network on wine grape production provide detailed insights into the cost structure and revenues of international wine grape production. They can be considered as a starting point for identifying drivers of trends in wine grape production systems. A time series analysis as started in Figure 8 demonstrates the need for a longer term analysis, allowing to distinguish random events or shocks, such as the Australian drought, from longer term trends caused by changes in production conditions and structures. Also, a broader coverage of the major wine producing countries will be needed.

The analyses also indicate towards future challenges for the benchmarking of wine grape production. The market for wine grapes and wines is extremely heterogeneous in terms of varieties, qualities and preferences for geographic regions. Also legal restrictions and quality certification schemes apply in different countries and regions with respect to management, target yield levels and establishment of new vineyards. Besides using standardized methodology of data collection, the standardization of the product quality and target market needs to be enhanced for the mentioned farms in Australia and South Africa so that a meaningful comparison of the production systems can be obtained. So far, the focus in the benchmarking was on wine grapes for quality bulk wine production. With a broader coverage of wine producing countries and regions, more specific analyses for regional categories can be conducted, considering also restrictions from national wine legislation or the effects of certification and protected geographical origin.

The data collection has started only at the end of 2012 and thus the project is still in its starting phase. Major tasks for the future will be to fine-tune the data of the established typical farms and to update the farms for time series analysis as well as to establish additional typical farms in further regions and countries of the world. It is our aim to also include at least the USA, Argentina, Chile, Portugal and New Zealand into the project in order to cover the most important wine growing regions of the world.

For further and recent information and in case you are interested in participating in the project or in particular results please visit our website <http://www.agribenchmark.org/horticulture.html> or contact one of the authors.

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How to deal with quality problems of German wine cooperatives

- A double principal-agent approach -

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Abstract

Purpose - This study reveals the double principal agent problem in German wine cooperatives and outlines general problem solving mechanism that were worked out by Eilers and Hanf (1999).

Design/methodology/approach - Due to their principles cooperatives have to deal with some restraints regarding the production of quality grapes and wines. A particular problem is caused by the fact that the producer is on the one hand the owner of the processing unit and on the other hand the supplier of the processed raw material. Thus, an double principal agency approach for starch processing cooperatives was used to show up causes and problems of cooperative structure. Thereafter double principal agency approach was transferred to German wine co-ops to examine problems and present sectoral specific solution approaches.

Findings - Results show that contractual structure of German wine cooperatives face stochastic conditions, a conflict of interest, asymmetric information, and opportunistic behaviour and hence double principal-agent-problem is being addressed in reality. Research was supported by using examples from Austrian and German wine co-ops that outlined several solution approaches for wine cooperatives. Thus, the main objective for co-ops is to reduce member heterogeneity in case of quality by voluntary quality incentive programs. Furthermore strategic member groups that were based on quality cluster of members facilitate planning processes of marketing activities and offer flexible market penetration through several distribution channels.

Keywords: Double principal-agent-problem, co-operatives, German wine market

1. Introduction

Referring on a European Union report Pennerstorfer and Weiss (2013) show that cooperatives still play today in most developed market economies throughout all most all agribusiness sectors. For example, in Germany the majority of wine growers are members of cooperatives. The acreage planted with vines by all members of cooperatives increased up to 31,342 ha, so that more than 31% of all German area was under cultivation producing 3.3 million hectoliters wine, accounting for nearly 35 % of the total wine-production in Germany (Deutsche Winzergenossenschaften 2012). In particular, in the regions of Baden, and Württemberg, where grape production is dominated by part-time viticulturists, membership in cooperatives is widespread. In those regions, co-ops hold a market share of nearly 75% (Hanf/Schweickert, 2014).

Pennerstorfer and Weiss (2013: 144) mention that “in the light of the consumers’ increasing concerns about food quality, the extent to which cooperatives can maintain or even strengthen their market position in the future relative to other forms of business organizations (investor-owned firms) will crucially depend on their ability to successfully accommodate consumers’ demand on high-quality food products”. However, due to their unique institutional form as a member-owned firm, co-operatives face several problems regarding the achievement of product quality. Traditionally, an open membership policy has led to co-ops having rather heterogeneous members. Furthermore, due to an existing a tendency for Raiffeisen cooperatives to merge in Germany, those merged cooperatives are becoming more diverse in their business operations in addition to their members becoming more heterogeneous.

In general, members vary according to their geographic dispersion, variance in age and education, farm sizes and type, as well as business objectives and strategies (Iliopoulos and Cook, 1999; Sykuta and Cook, 2001). Bijman (2005) deduces that membership heterogeneity could cause a number of inefficiency problems, including agency problems, commitment problems, decision-making problems, opportunistic behavior, coordination problems, and problems regarding the strategic focus. Furthermore, Fulton and Giannakas (2001) showed that the cross-subsidization and member heterogeneity in large centralized, multipurpose co-ops may lead to substantial financial pressures for the cooperative because members do not see a strong connection between the success of the co-op and their own business. However, Raiffeisen cooperatives can be characterized as being Janus faced, i.e. they are member-owned firms as well as associations of individuals (Anshhoff and Henningsen, 1986; Laurinkari and Brazda, 1990; Philips 1953; Robbotka 1947). In addition to economic matters,

social mechanisms such as trust and loyalty to the cooperative firm are of high importance (van Dijk, 1997). However, the more heterogeneous the members, the more these social mechanisms lose their function (Bijman, 2005). Using a property rights approach, Cook (1995) pointed out five general sets of problems: free riding problems, horizon problems, portfolio problems, control problems, and influence cost problems. Furthermore, Karantininis and Zago (2001) showed that instead of selling their commodities to open co-ops, farmers would rather sell them to investor-owned firms if they had the choice. Fulton (1995) concludes that if markets disappear as a result of increased vertical coordination, cooperatives may also begin to disappear. Hendrikse and Bijman (2002) share this assessment in the regard that the investment of the processor or retailer becomes more important for the total chain value than the investments by the farmers.

Although the behavior and performance of cooperatives have been the focus of extensive theoretical and empirical research, the achievement of product quality has received relatively little attention (Cook 1997; Merel et al 2009; Pennerstorfer/Weiss 2013). Reason for this is that often theoretical elaborations on marketing cooperatives assume that a single, homogeneous product is sold (Pennerstorfer/Weiss 2013). However, the decentralized decision making within cooperatives often lead to problems regarding product quality. On the example of salmon production Badcock and Weninger (2004) exemplify the problem of quality free riding. Steiner (2012) conceptualizes how bilateral moral hazard situation affect quality decisions. Overall, the specific principal-agent setting in cooperatives are regarded as having a negative impact on quality. In this context, the findings of Eilers and Hanf (1999) address a major weakness of co-ops. Using a principal-agent approach and the concepts of opportunistic behavior, conflicts of interest, asymmetric information, and stochastic conditions, they showed that it is not clear who is the principal and who is the agent, i.e. both the cooperatives and the members can be principals and agents. For this reason, neither leadership mechanisms nor selective terms of delivery can be enforced by the cooperatives, i.e. the members can deliver all the commodities that alternative dealers do not accept. Cooperatives that are forced to accept these commodities face the problem of adverse selection.

Pennerstorfer and Weiss (2013:144) state that “quality coordination problems could be even more detrimental to the prosperity of cooperatives in particular in situations where the quality delivered by individual members is difficult to verify and is non-contractible between independent actors. As Goodhue et al (2003) clearly show particularly for premium wine it is the case. In an empirical work on the German wine market Frick (2004) was able to show that

ownership structures (investor-owned firms versus cooperatives) determined the product quality. Problematic principal agent settings were identified as one of the major deterrents. These findings were confirmed by Dilger (2005).

As the literature indicates that principal-agent settings are a major source of the determination of wine quality the aim of our paper is to transfer the general model of Eilers and Hanf (1999) to the specific case of German wine co-operatives. Along with that we want to present some solutions how to deal with this problem.

2. The double principal-agent problem in co-operatives

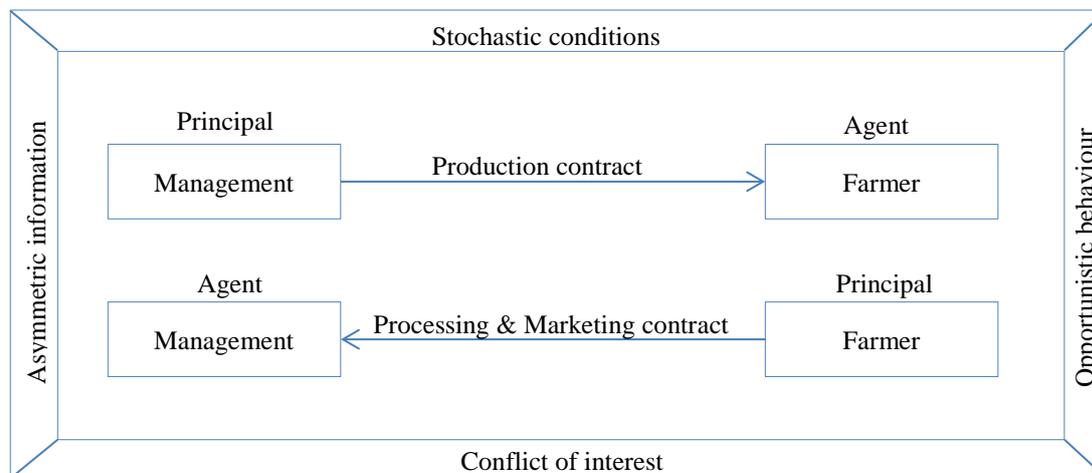
A principal-agent problem can be characterized in such a way that a principal asks the agent to fulfill a certain, defined task. For the fulfillment of this task the agent receives a payment (Chaddad/Iliopoulos 2013; Ross 1973). However, often this task is not being accomplished to the full satisfaction of the principal. The reason is that the principal and agent might have diverging interests (Nilson/Hendrikse 2010). Another source for this problem could be an incomplete contract and/or the existence of asymmetrical information leading to opportunistic behavior (Cook et al. 2004; Hendrikse/Veerman 2001; Jost 2001; Roiger 2007; Schreyögg 2003).

However, in the context of co-operatives this classical setting has to be extended. On the one hand the member is the legal owner of the co-operative. Hence, he is the principal and the manager is the agent. On the other hand the member as an input supplier is the agent whereas the manager is the principal (Ringle 2007; Ringle 2007a). Hence, Eilers and Hanf (1999) characterized this setting as a double principal agent problem. In the following paragraphs we will introduce their underlying model which will be used later for the discussion of German wine co-operatives.

To discuss the problem Eilers and Hanf (1999) chose a principal-agent-setting with an interchange of positions with the intention to give conclusions about the optimal contractual solution if the co-operative or the member determines the payment schedules, Model I presumes that the (management / manager of the) co-operative offers a production contract to the farmer. Model II deals with the case of a farmer delegating the processing and marketing to the co-operative. As shown in figure 1, for both models the contracting situation is explicitly characterized by stochastic conditions, a conflict of interest, asymmetric information, and opportunistic behavior.

Figure 1

Double principal-agent problem in co-operatives



They followed the usual proceedings by optimizing the principal's utility function under the first restriction that the agent signs the contract with the restriction that the agent obtains at least his reservation level of utility. The second restriction they formulated is the incentive compatibility constraint that the principal has to take into account. In order to make the solutions of the two models comparable the determinants of the agent's respectively the principal's utility function may not change. Furthermore, the models are characterized by linear compensation schemes. In order to solve this problem they used a Lagrange approach.

An overall finding Eilers and Hanf (1999) present is that the total income of each actor is without exception higher in the principal position, although the weight of its components may vary considerably. The mode to share the surplus is primarily determined by risk aversion. If farmers and managers are comparably risk averse, they share the surplus almost equally. If risk aversion is asymmetrically distributed, the one with the higher risk aversion receives a large basic income and a very low share of the surplus. In general, they found out that the impact of risk aversion is stronger than the impact of power distribution. Furthermore, they dissolved that the manager's optimal effort is always higher in the agent position which means that the incentive schemes induce him to work more than if he determines the contract himself.

3. The German wine market and wine-co-operatives

Whereas in the 1980s retailers were still dominating in direct sales and sales of specialized wine and delicacies, today the three main distribution channels are discount retail chains (40% market share), retailers (36% market share), and direct sales from the producers

(20% market share) (Deutscher Raiffeisenverband 2012a; Deutsche Winzergenossenschaften 2012a). The increase of imported wines came hand in hand with the rise of supermarkets and discount chains— particularly from the New World. These large-scale producers are able to produce large quantities with an acceptable ('drinkable') quality at the lowest prices. Furthermore, these producers targeted retailers as their main distribution channel from the beginning, providing them with demanded quantities, modern IT and supply chain solutions. As pointed out before, the German wine sector is in contrast still dominated by small wine growers, with more than 30,000 wine businesses. Nearly half of these businesses cultivate less than 1 ha of vineyard while only about 2,000 wine growers own more than 10 ha. The majority of wine growers are members of cooperatives. (Deutscher Raiffeisenverband 2012; Schweickert, 2007)

The rapid rise of supermarkets and discount chains was accompanied or caused by a change in consumer behavior (Deutsches Weininstitut 2012). Traditionally, in Germany, wine was mainly drunk in wine-growing regions. This wine was generally produced locally and bought directly from the growers or village cooperatives. However, today the consumption of wine is common all over Germany (including non-wine growing regions) and most consumers are occasional wine drinkers. Hence, they are looking for uncomplicated signals, such as the reputation of retailers or wine-growing regions or countries as well as brands, to signify quality. Particularly imported wines with an easily understandable and asymmetric information-reducing label could profit from this development (Schweickert, 2001). Furthermore, retailers as customers are particularly interested in professional supply chain management, in terms of delivery time as well as minimum quantities. Therefore, only very large wine processors are able to meet these demands. For these reasons, only a few German private wineries and wine cooperatives are able to supply the large retailers on a national level.

Wine cooperatives produce over 3 million hectoliters wine, accounting for nearly 35% of the total wine production in Germany (Deutscher Raiffeisenverband 2012). The acreage planted with vines by all members increased up to 31,342 ha, so that more than 31% of all German land area was under cultivation, in particular, in the regions of Baden, Württemberg, and Franken, where grape production is dominated by part-time viticulturists and membership in cooperatives is widespread (Deutsche Winzergenossenschaften 2012). In these regions, cooperatives hold a market share of nearly 75%. Today, there are over 200 active wine

cooperatives. However, only 147 of them possess their own vinification facilities (Deutsche Winzergenossenschaften 2012).

The examination of the German wine market has shown that wine cooperatives have a special role within the market. According to their statutes, wine cooperatives are self-help organizations for wine growers. Their aim is to improve the economic situation of their members by collaboration in vinification and marketing of the grapes or their processed products. Accordingly, the general function of wine cooperatives is to process grapes; produce must; and vinificate (fermentation, fining, clearing, and other oenological practices in the cellar for winemaking), bottle, and market the wine. Thus, the wine cooperatives are indispensable to part-time wine growers (Hoffmann, 2000).

In accordance with the general cooperative system, a secondary “central-wine cooperative” (“central cooperative”) has been established in both of the wine-growing regions of Baden and Württemberg, where there are more than 68 non-vinificating wine cooperatives (Deutsche Winzergenossenschaften 2012). For these cooperatives, “central cooperatives” function as the vinificating unit so that such cooperatives only have to collect the grapes of their wine growers and deliver the grapes of the whole vintage. Another task of the “central cooperative” is to stabilize the supply. Therefore, many of the wine cooperatives with their own vinification (“wet” wine cooperatives) deliver a contractual share of bulk wine from their vintage (Hanf/Schweickert 2007).

Traditionally, wine cooperatives sold the vast majority of their wines directly to the consumers or sold them via small local retailers in their neighborhood. However, due to the changes in consumer behavior and in marketing channels, cooperatives must use different distribution channels to market their products (Hanf/Kühl, 2008). Facing the demands of the large retailers, like continuously supplying them on a national basis, has led to some structural adjustments in the cooperative sector. Because the majority of the “wet” wine cooperatives do not produce enough quantity neither possess sufficient financial assets, they cannot afford to have their own distribution force. Thus, secondary “central wine cooperatives” have gained importance. They mainly operate on a higher level within the wine production chain, selling bottled wine from “wet” wine cooperatives to retailers nationwide (Weinwirtschaft 2012). Because they are centralized and market large quantities, they are able to meet the retailers’ demands of high quantities paired with high demands of the IT infrastructure (Schweickert, 2007). In general, the “central wine cooperatives” mediate between the primary cooperatives and the retailers by marketing wine nationwide and managing the relations with the retailers.

Therefore, “wet“ wine cooperatives can focus their marketing efforts on specialized retailers (special wine stores), local retailers, restaurants, and direct selling.

4. Double principal-agent-problems in German wine co-operatives

As pointed out before, both models are characterized by stochastic conditions, a conflict of interest, asymmetric information, and opportunistic behavior. In the context of wine i.e. grape production both models face the same stochastic conditions such as weather conditions, diseases, water and energy costs, or restrictions in the production process or environmental restrictions. Hence, we will not explicitly discuss them. However, the other three characteristics will be addressed in the following paragraphs.

In general often the member influences the decisions in such a way that co-operatives are paying a certain price per kilo as long as a minimum quality is being produced. Hence, members produce as much as possible in order to maximize their income at low risk (Dilger 2005). A further reason for this behavior is that quality in co-operatives can be regarded as a collective good. Thus, the efforts and the related additional costs to increase the quality by an individual member will only be paid back partially. Moreover, in some cases members have decided that they do not have to deliver their full harvest to the co-operative. Instead they are allowed to sell the better quality grapes to wineries or wine estates for a higher price. This is often accompanied with the situation that the co-operative is obliged to accept all grapes that are delivered. As principals the members are able to hinder the management to impose sanctions. Furthermore, even in the case that sanctions exist for delivering bad quality grapes or selling grapes to other buyers the management is not willing to exercise them as the members have the power to dismiss them: A solution for these problems (according to model I) is that the management is able to work out incentive schemes that motivate the members to produce and deliver the high quality grapes. Such production contracts have to be designed in such a way that the reservation level of utility for the members is so high that the members not only sign but also actually fulfill the production contract by delivering grapes.

For this practice the Austrian cooperative Domäne Wachau is a good example. Some years ago it introduced a rating system for which the members could sign up voluntarily. However, in the context of this rating system the vineyards of the members were examined several times per year. If quality enhancing measurements were conducted by the members they earned some bonus points that were additionally compensated in the course of the patronage. This rating system resulted in the members receiving the highest patronage of all Austrian cooperatives (Feigl 2011). As a consequence of the successful rating system the

Domäne Wachau has been recognized for its excellent wines nation-wide. This positive image had also a psychological effect on its members. As they got proud to be the producers and owners of this excellent wine producing cooperative they became more loyal as before and hence gave up plans to leave the cooperative or to sell parts of the grapes through other channels (Feigl 2011).

In the context of German wine cooperatives Hanf et al (2012a) showed that a part of the German cooperatives use experts (e.g. oenologists) to rate the members' vineyards and to give advice how to enhance the grape quality. Again a positive evaluation within these rating schemes results in a higher patronage. Furthermore, the members accept the experts as a possibility to improve their production skills. A more differentiated approach that can be observed is that cooperatives form strategic member groups and accordingly set incentives for each group as each group requires different treatments (Hanf/Schweickert 2007). Thus, heterogeneous structures of co-ops were reorganised by building homogenous quality cluster and consequently strategic member groups lead to effort-based compensations of members. Farther, reorganisation by homogenous quality cluster through strategic member groups additionally support marketing decisions in case of facilitated planning for the management. Subsequently, co-ops increase flexibility since several sales channels can be penetrated simultaneously (Hanf/Kühl, 2008).

5. Summary

As a saturated market the German wine market is highly competitive (Weinwirtschaft 2012). Moreover more than half of the consumed wine is imported. The majority of the imported wine is sold through the big German food retailers. Often imported wines can be supplied in large quantities resulting in a good price-quality relation. Thus, as many German wine cooperatives have also the retail as their main customer they face strong challenges. However, due to their principles cooperatives have to deal with some restraints regarding the production of quality grapes and wines. A particular problem is caused by the fact that the producer is on the one hand owner of the processing unit and on the other hand the supplier of the processed raw material. This setting results in a double principal agent problem. In the course of this paper we theoretically outlined the problem and introduced general problem solving mechanisms that were worked out by Hanf/Eilers (1999) for starch processing cooperatives. Afterwards we transferred these arguments on the German wine market. By using examples from Austria and Germany we showed how double principal problems are being addressed in reality.

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How successful are German wine enterprises?

- A value added & business profit based analysis -

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Abstract

Purpose - This study examined the value added profitability and business profits of direct selling wine enterprises by combining empirical data and imputed costs of German wine enterprises through eight different growing areas.

Design/methodology/approach - Enterprises were observed by using annual financial statements over a three-year period. Business assessment calculations were conducted to calculate key figures that examine business profits and value added profitability. Calculations included imputed costs (imputed costs of lease, imputed costs of interest, imputed costs of entrepreneurial salary) to observe compensation of input factors by given market prices. Moreover, differences between growing areas and estate structure were analysed using chi-squared analysis and non-parametric tests.

Findings - The study reveals that small-sized wineries compensate input factors by business profits rather than by imputed market prices. Thus, entrepreneurs use business profits to compensate income of non-salaried family employees, entrepreneurial risk and intangible input factors as innovative capacity of the entrepreneur. Furthermore business profits are the central investment and savings unit of the entrepreneurial family. Results show that business performance of direct selling wineries correlated with the size of estates, while growing areas do not show any significant impact on the business performance.

Key words: small and medium-sized enterprises, wineries, success factors, entrepreneurship

1. Introduction

Historically the German wine business is differentiated into three forms of producers, cultivating a total surface of nearly 100,000 hectares and producing a volume of 9.1m hectolitres of wine (2012) (BMELV, 2013). Producers can be distinguished into wine estates that sell wine in bulk, estates that produce grapes and sell raw materials to co-operatives or wine estates which hold the whole value chain, including bottling and sales (BMELV, 2013). Taking the whole EU (27), the overall value of production was €14bn (2012) of which the German value of production is €1.17bn (2012), an 8% share of the total EU production value (BMELV, 2013).

With an average standard output of approximately €143,000 among the aforementioned producers (BMELV, 2013) and an average employment of less than 10 employees per estate, German wine estates are categorized by small and medium-sized enterprises, more precisely as microenterprises (EU, 2003). Furthermore most enterprises are family-owned and are run as non-corporations such as individual companies or as business partnerships. Thus, individual companies and business partnerships are delimited by two central criteria (Kuhlmann, 2007). Individual companies and business partnerships are run by entrepreneurs who have the task of business governance as well as the role of bearer of the business, while the governance of corporations is driven by a management board (Kuhlmann, 2007). Generally the overriding corporate objective of a business is to be competitive in the long run by maximizing profit (Wöhe, 2008). Accordingly, a successful business is one that reaches its objectives (Richter, 1969; Grabatin, 1981; Göbel, 2003). To reach the overriding corporate objective, businesses have to combine land, labour and capital in the most efficient way. However, businesses are confronted with several challenges that are typified by the coalition approach that shows that business results are often determined by more than one decision-maker (Hungenberg, 2002; Macharzina/Wolf, 2010). We focus on the economic interests and objectives of non-corporations to measure the success of German wine enterprises. With respect to Kuhlmann, interest groups of businesses are defined as all those who:

- supply the business with capital
- participate in the decision making process and governance
- take the risk of the business
- benefit from the business profit

To sum up the four criteria and to project them to non-corporations in wine (grape) producing estates by using an entrepreneurial approach, entrepreneurs invest their equity, are responsible for decision-making and governance, they take the whole risk as they are liable without limitations (with their personal assets) and they potentially benefit from the business in the form of entrepreneurial profit (Kuhlmann, 2007). Inversely entrepreneurs have to compensate land, labour and capital by sufficient added value. Figure 1 shows the distribution of minimum operating income to generate the value added profitability that is necessary to compensate the invested production factors.

Figure 1
 Operating income, minimum operating income and value added profitability
 Source: Kuhlmann, 2007

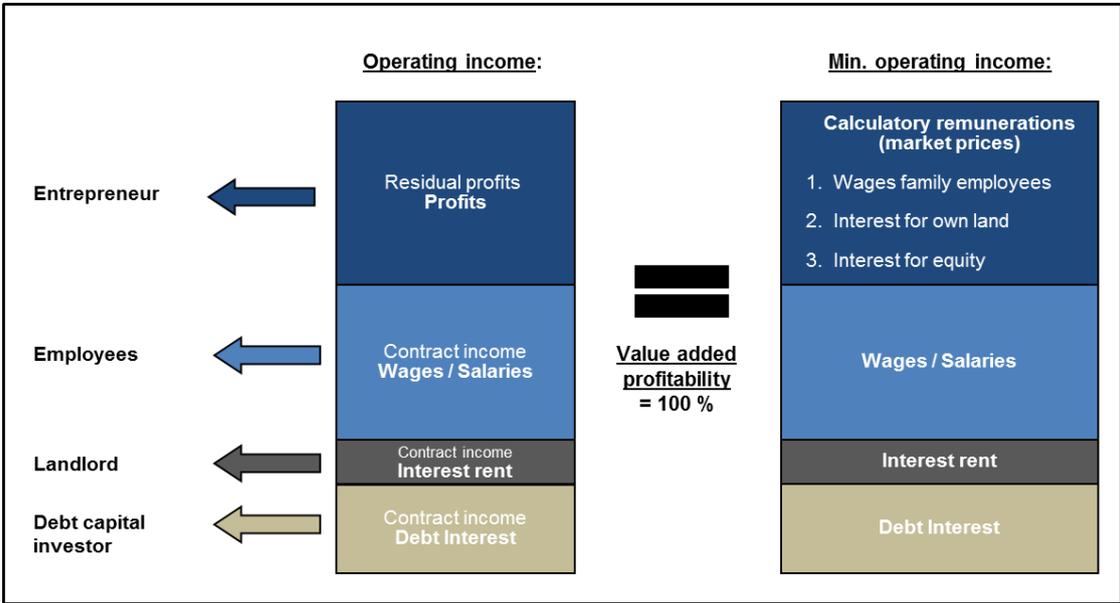


Figure 1 shows that the minimum value added profitability, which is the quotient of value added and the minimum operating income, has to be 100%. Correspondingly a value added profitability of 100% is the exact value that compensates all input factors. The success of an entrepreneur running a non-corporation is shown by their residual profits. Several studies in the wine business reveal that the main objective of (family) entrepreneur-run estates is the acquisition of sufficient family income to equal the income of the non-salaried family members who run the business (Leimbrock 1984; Matheus 1994; Drosse 1995; Kost 2002; Göbel 2003; Mend 2010). Referring to the results it is necessary to observe the residual income from different points. Individual companies and business partnerships use the business profits (residual profits) to compensate manpower of the entrepreneur and invested

equity, including agricultural production land (Kuhlmann, 2007). Microenterprises that are solely run by an entrepreneurial family compensate the executive and operative manpower of the entrepreneur and the family, while contractual income is no longer required (Kuhlmann, 2007). Respectively, if the business is run without debt capital and rent for agricultural land, the profit is equivalent to the value added (Kuhlmann, 2007). According to this theoretical approach the agricultural enterprise is seen as a production unit excluding non-operative profit revenues and non-operative expenditures (Reisch/Knecht, 1995).

Apart from the compensation of land, labour and capital that equals a value added profitability of 100%, entrepreneurs have to acquire a value greater than 100% to reach the overriding corporate objective, being successful in the long run. Thus, entrepreneurs have to invest in their business to compensate for inflation and overall economic growth which enables organic growth by equity accumulation (Reisch/Knecht, 1995). Furthermore entrepreneurs invest human assets as personal traits such as innovation ability, creativity (Holdregger, 1998; Euchner, 2000) and the risk-taking of the business (Haupt 1997; Hamer, 2001) that have to be compensated for by entrepreneurial profits (Schneider, 2001). It follows that the success of wine (grape) producing enterprises is given with respect to the compensation of all invested (intangible) assets. Based on this approach the value added profitability can be used as a measure of success in the case of competitiveness. Figure 2 enhances minimum operating income from figure 1 by entrepreneurial profits with respect to value added profitability.

Figure 2

Entrepreneurial success with respect to added value

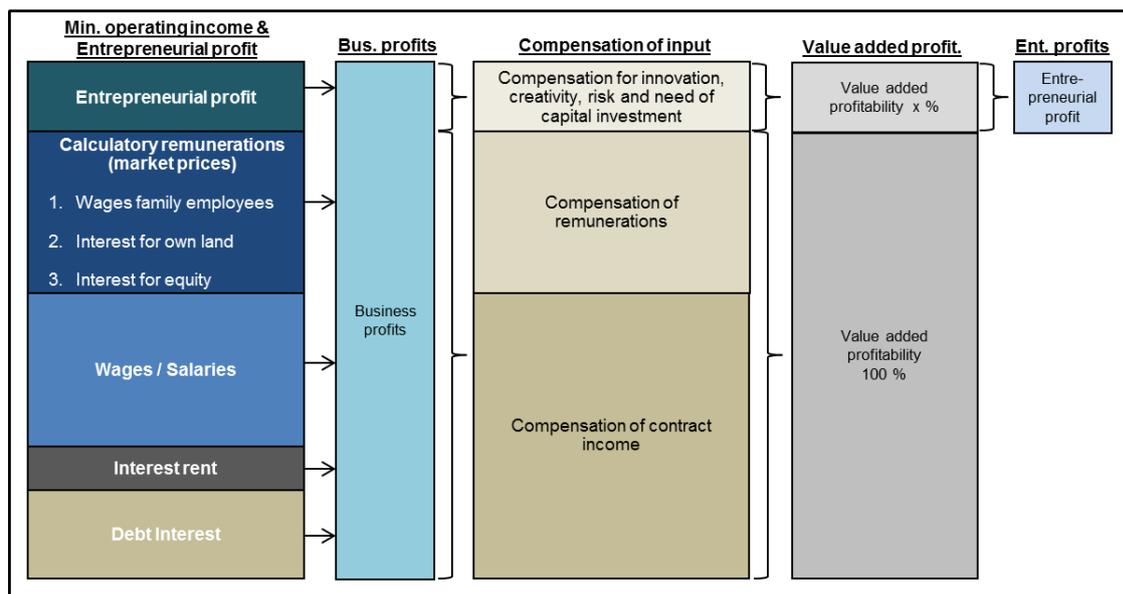


Figure 2 shows that successful entrepreneur-run enterprises have to aim for a value added profitability greater than 100%. If the value added profitability in individual companies and business partnerships is greater than 100%, the business attains an entrepreneurial profit. Thus, the profit compensates the entrepreneurial manpower in the case of risk and innovation, while investments (savings) for business growth can be implemented to ensure competitiveness in the long run (Kuhlmann, 2007). Taking the aforementioned coherences we could conclude that the higher the total value added, the higher the compensation of each input factor will be, or if the input factors are compensated by market prices, the higher the entrepreneurial profit will be (Kuhlmann, 2007). As far as we know less empirical research has been conducted on the competitiveness and income distribution of German wine enterprises. Based on this, we set value added profitability, business profits and entrepreneurial profit as the central units for success to examine the question if German direct selling wine enterprises are competitive and if estates are able to compensate input factors by market prices.

2. Material and Methods

Data was collected by using annual financial statements of German direct selling wineries through eight different wine growing areas over a three year period. A similar framework was used in success factor research by Dautzenberg/Petersen 2005 and Schultze 2008, who examined success factors of agricultural enterprises. Business structure was categorized by enterprises that hold the whole value chain, including production and sales of wine. Subsequently, the success of wineries is not limited to the production side (expenditures), since success is also determined by generated revenues as a result of marketing activities. Enterprises had to be individual companies or business partnerships, such as GbR¹ and the managed agricultural land had to be less than or equal to 2.5 hectares to ensure that wine production was the main source of income. Thus, the greater the limitation of the wine estate structure, the higher the comparability of the enterprises success is (Drosse, 1994). Annual financial statements were analysed by calculation of business assessment over a three-year mean to compensate for agricultural volatility such as fluctuations in yield caused by external factors.

The data included a sample of 261 enterprises varying in size between 2.52 hectares in the

¹ GbR (Gesellschaft bürgerlichen Rechts): Civil law association

Mosel area to 55.11 hectares in the Pfalz. The financial years included 08/09, 09/10 and 10/11. Standard deviation and minimum and maximum figures show that the enterprises underlie a strong dispersion regarding their size between and within the growing areas. The median shows that the biggest enterprises were in the Pfalz with an area under vines in production of 55.11 hectares, whereas the smallest enterprise was observed in Baden with 2.52 hectares of vines in production. Both Kolmogorov-Smirnov and Shapiro-Wilk tests show that the data is not normally distributed. Table 1 gives a precise overview of the data.

Table 1

Overview of data

Direct selling enterprises		n = 261; mean size under vines cultivated 12.16 ha					
Financial statements		financial years 08/09, 09/10, 10/11					
Wine estates per growing region							
Growing area	Total	%	Mean size (ha)	Median size (ha)	Standard deviation	Min.	Max.
Pfalz	64	24.5%	17.20	14.37	10.12	4.55	55.11
Rheinhessen	58	22.2%	15.27	13.60	7.85	4.21	35.60
Franken	30	11.5%	9.18	7.69	5.25	3.33	28.69
Baden	30	11.5%	12.22	8.66	10.15	2.52	54.01
Mosel	28	10.7%	6.05	5.61	2.34	3.01	12.00
Württemberg	19	7.3%	12.13	10.55	7.45	4.14	38.64
Nahe	17	6.5%	11.72	9.59	6.65	6.31	34.71
Rheingau	15	5.7%	13.51	11.31	9.65	3.24	35.67

3. Results

The following chapter summarizes the results of the success of wine enterprises with respect to calculated key figures and statistics. First, business assessment was calculated to get an overview of the value added profitability of wine growing estates. Thereafter statistical analysis was conducted to examine differences between influencers on performance.

3.1 Value added profitability of German wineries

Table 2 shows calculated key figures for all the data in column 2. Data was divided into positively (column 3) and negatively (column 4) performing estates measured by value added performance. Overall 261 estates were examined, of which 32% received a positive value added profitability and 68% a negative valued added profitability. Imputed key figures were calculated by market prices to examine if businesses compensate input factors by market prices. Imputed key figures are imputed costs of lease², imputed costs of interest³ and imputed

² Imputed costs of lease: €1000 per ha area under vines cultivated (own property)

costs of entrepreneurial salary⁴. Imputed key figures can be interpreted as opportunity costs, such as lost interest for lease by the winery using its own land for production. The imputed costs of interest is interest for tied-up equity and imputed costs of entrepreneurial salary is the value of income that a non-salaried family employee can earn in alternative employment. Column 2 displays the overall performance of German wineries, measured by value added profitability (value added / minimum operating income). Thus, the total value added from all wineries amounts to €205,720.69 and the minimum operating income to €21,205.02. Deriving from the quotient of both figures, the overall value added profitability is 93% and hence is negative. It follows that most businesses are not able to compensate their input factors by calculated imputed market prices since a value added profitability of 100% is not achieved.

Table 2

Value added profitability and entrepreneurial profit

Value added profitability and entrepreneurial profit			
Key figures	All enterprises (n = 261)	Pos. value added prof. (33 %)	Neg. value added prof. (67 %)
(+) Lease expenses	€444.27	€1,189.62	€8,939.31
(+) Interest expenses	€3,202.08	€5,902.63	€1,581.57
(+) Personnel expenses	€7,809.91	€13,813.65	€7,937.59
(+) Business profits	€5,246.42	€82,853.55	€6,549.19
(=) Value added	€205,720.69	€23,759.45	€48,025.64
(+) Lease expenses	€444.27	€1,189.62	€8,939.31
(+) Interest expenses	€3,202.08	€5,902.63	€1,581.57
(+) Personnel expenses	€7,809.91	€13,813.65	€7,937.59
(+) Imputed costs of lease	€0,683.55	€3,152.47	€0,680.49
(+) Imputed costs of interest	€5,890.38	€0,622.67	€8,482.22
(+) Imputed costs of entrepren. salary	€4,174.83	€2,498.19	€7,039.10
(=) Min. operating income	€21,205.02	€25,179.24	€10,660.27
Value added profitability	93.00 %	125.89 %	70.28 %
Entrepreneurial profit	-€15,484.33	€6,580.21	-€6,607.63
Family employees	1.84	1.79	2.01
Area under vines in production (ha)	12.20	14.76	12.42

Column 3 shows that 33% of the estates received a value added profitability of 125.89%. Estates show an average positive entrepreneurial profit of €6,580.21. Compared to the complete data (column 2), businesses show that there are fewer non-salaried family employees and simultaneously estates have a 2.34 hectare greater average area of vines in production. Column 4 shows that 68% of the whole database received a value added profitability of less than 100%. Thus, two-thirds of the examined enterprises hold an average value added profitability of 70.28%. Consequently, estates reveal a negative average

³ Imputed costs of interest: $(3.5 / 100 \times (\text{Equity opening balance sheet} + \text{Equity closing balance sheet}/2))$

⁴ Imputed costs of entrepreneurial salary: €35,000 per non-salaried family employee

entrepreneurial profit of -€6,607.63. Compared to positive performing businesses, negative performing estates had 0.22 more non-salaried family employees that have to be compensated by imputed costs of entrepreneurial salary. 0.22 non-salaried employees correspond to €7,700 of additional compensation per business. In table 2, the data shows that successful businesses recorded a business profit of €23,759.45, while negative performer recorded €148,052.64 and hence successful businesses earned a business profit that was more than 100% higher, though the size of the winery differed by merely 2.34 hectares.

The value added profitability between the selected growing areas was calculated to examine differences in economic success with respect to the growing area. Table 3 gives an overview of the different growing areas and key figures calculated. The data shows eight different groups. Group sizes vary between 15 (Rheingau) and 65 (Pfalz) estates. Overall, non-salaried family employees vary from 1.26 (Rheingau) to 2.36 (Württemberg). A comparison of value added profitability with respect to the growing areas show that the Rheingau area receives a value added profitability of greater than 100% and hence a successful performance. However, seven of eight areas reveal a negative value added profitability performance.

Table 3

Value added profitability by growing area

Value added profitability and entrepreneurial profit								
Growing areas	Baden	Franken	Mosel	Nahe	Rheingau	Pfalz	Rheinhesen	Württemberg
Key figures	n = 30	n = 30	n = 28	n = 17	n = 15	n = 65	n = 58	n = 19
(+) Lease expenses	€4,541.47	€0,507.00	€2,915.97	€4,363.13	€0,654.65	€3,463.10	€8,670.10	€20,438.78
(+) Interest expenses	€5,485.23	€7,878.20	€5,301.91	€7,647.85	€2,056.37	€5,062.63	€9,678.31	€12,506.16
(+) Personnel expenses	€34,539.31	€5,649.47	€26,108.47	€69,028.73	€57,387.93	€06,486.91	€3,621.93	€9,656.49
(+) Business profits	€3,673.32	€80,352.73	€4,691.31	€3,536.68	€20,929.52	€09,259.60	€05,590.23	€04,082.00
(=) Value added	€248,239.33	€64,387.41	€89,017.65	€174,576.39	€11,028.47	€44,272.24	€87,560.58	€26,683.42
(+) Lease expenses	€4,541.47	€0,507.00	€2,915.97	€4,363.13	€0,654.65	€3,463.10	€8,670.10	€20,438.78
(+) Interest expenses	€5,485.23	€7,878.20	€5,301.91	€7,647.85	€2,056.37	€5,062.63	€9,678.31	€12,506.16
(+) Personnel expenses	€34,539.31	€5,649.47	€26,108.47	€69,028.73	€57,387.93	€06,486.91	€3,621.94	€9,656.49
(+) Imputed costs of lease	€7,340.23	€4,796.63	€6,057.65	€1,728.96	€3,770.03	€7,209.89	€2,434.63	€1,130.41
(+) Imputed costs of interest	€6,119.92	€2,581.94	€6,302.30	€2,918.99	€0,994.40	€6,084.54	€4,459.55	€0,661.36
(+) Imputed costs of entrepren. salary	€0,736.68	€7,830.00	€5,062.50	€3,714.71	€4,100.00	€7,984.53	€7,499.13	€2,471.05
(=) Min. operating income	€268,762.83	€82,243.25	€11,748.80	€79,402.37	€78,963.38	€72,291.59	€18,363.66	€57,864.25
Value added profitability	92.36%	90.20%	79.66%	97.31%	111.49%	98.71%	85.89%	87.91%
Entrepreneurial profit	-€20,523.50	-€17,855.84	-€22,731.15	-€4,825.98	€32,065.09	-€28,019.36	-€30,803.09	-€31,180.83
Family employees	1.74	1.94	1.57	1.53	1.26	2.11	2.19	2.36
Area under vines in production (ha)	12.23	9.18	6.06	11.73	13.77	17.21	15.28	12.13

The results show that entrepreneurs compensate input factors by business profits rather than by imputed market prices. Thus, we conclude that business profits are the economic source for most enterprises reaching the overriding corporate objective of being competitive in the long run. As a consequence, business profits have to compensate wages for non-salaried

family employees, interest for their own land and equity as well as for entrepreneurial risk, creativity and innovational strength of the entrepreneur. Furthermore business profits are the source of capital accumulation and compensation of inflation.

3.2 Business profits of German wineries

As businesses received an average negative value added profitability, business profits are the main source for compensation and thus we will examine business profits. To get a comparable measure of performance, average revenues, expenditures and business profits were calculated and considered by area of vines in production. Figure 3 gives an overview of the success by area with respect to business profits, expenditures and revenues per hectare.

Figure 3

Business profits, revenues and expenditures per hectare

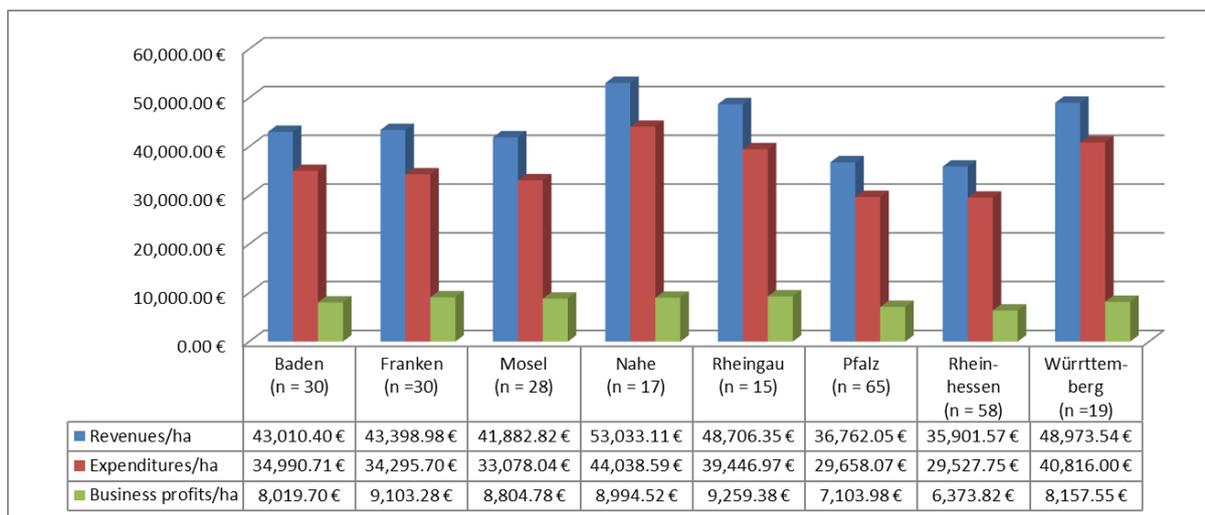


Figure 3 shows that the most successful businesses measured by business profits per hectare are located in the Rheingau (€9,259.38/ha) and Nahe (€8,103.28/ha). Rheinhessen (€6,373.82/ha) and Pfalz (€7,103.98/ha) are the weakest performers in the collected data sample. In addition, business profits per hectare from Rheinhessen and Pfalz differ most from other areas. Since the data is not of a normal distribution and the data shows that there is no variance, homogeneity, groups were clustered to examine significant differences between growing areas and business performances per hectare by using cross tabs and chi-squared analysis. Table 3 shows the areas examined segmented through four different groups of business profits per hectare.

Table 4

Business profits with respect to growing area

Growing area		Baden	Pfalz	Rhein- hessen	Rhein- gau	Franken	Mosel	Württem- berg	Nahe	Total
€0 - €2,999	% of group	13.2%	34.2%	21.1%	2.6%	10.5%	10.5%	5.3%	2.6%	100.0%
	% of total	2.0%	5.2%	3.2%	.4%	1.6%	1.6%	.8%	.4%	15.3%
€3,000 - €5,999	% of group	12.9%	32.3%	27.4%	4.8%	6.5%	6.5%	4.8%	4.8%	100.0%
	% of total	3.2%	8.0%	6.8%	1.2%	1.6%	1.6%	1.2%	1.2%	24.9%
€6,000 - €8,999	% of group	5.7%	20.8%	28.3%	7.5%	9.4%	9.4%	9.4%	9.4%	100.0%
	% of total	1.2%	4.4%	6.0%	1.6%	2.0%	2.0%	2.0%	2.0%	21.3%
≥ €9,000	% of group	12.5%	18.8%	14.6%	5.2%	16.7%	14.6%	9.4%	8.3%	100.0%
	% of total	4.8%	7.2%	5.6%	2.0%	6.4%	5.6%	3.6%	3.2%	38.6%
Total	% of total	11.2%	24.9%	21.7%	5.2%	11.6%	10.8%	7.6%	6.8%	100.0%

Table 3 shows that the Pfalz accounts for the highest share within the first two groups and the last group of business profits per hectare. The share of the Pfalz within the groups decreases with an increase in profits per hectare. With respect to table 3, both Pfalz and Rheinhessen show that their high share per group is related to their high number of enterprises in the sample. However, we can derive from table 4 on an accumulated level, that the share of more successful growing areas is related to the range €6,000 – €8,999 and the range ≥ €9,000, while less successful growing areas lie mainly in the ranges €0 – €2,999 and €3,000 – €5,999.

Table 5

Accumulated business profits with respect to growing area

Business profits/ha	Baden	Pfalz	Rhein- hessen	Rheingau	Franken	Mosel	Württem- berg	Nahe	Total
€0 - €5,999	5.2%	13.3%	10.0%	1.6%	3.2%	3.2%	2.0%	1.6%	40.2%
≥ €6,000	6.0%	11.6%	11.6%	3.6%	8.4%	7.6%	5.6%	5.2%	59.8%

Table 4 outlines the first two and the last two ranges from table 3 on an accumulated level. Thus, 40.2% of the overall sample received a business profit per hectare that was ≤ €5,999, while 59.8% received a profit of ≥ €6,000. The less successful enterprises located in the areas Baden, Pfalz and Rheinhessen show that the distribution of business profits per hectare is nearly similarly distributed through both ranges, whereas more successful areas show that most of their enterprises lie in the bracket ≥ €6,000. Chi-squared and Kruskal-Wallis tests were applied to observe differences between growing areas with respect to the performance cluster per hectare. However, both results state that there are no significant differences between growing areas and business profits per hectare. Subsequently, the data does not reveal a relationship between the growing area and the success of enterprises, measured by business profits per hectare. Next coherences between business profits per hectare and the

area under vines in production were examined. Table 5 shows business profits with respect to the size of the enterprises.

Table 6

Business profits with respect to size of enterprises

Size of enterprises		Bus. profits/ha		€0 - €2,999	€3,000 - €5,999	€6,000 - €8,999	≥ €9,000	Total
		% of group	% of total					
0 - 14.99 ha	% of group			12.00%	22.30%	20.60%	45.10%	100.00%
	% of total			8.40%	15.70%	14.50%	31.70%	70.3%
15 - 34.99 ha	% of group			20.00%	32.30%	23.10%	24.60%	100.00%
	% of total			5.20%	8.40%	6.00%	6.40%	26.10%
35 - 59.99 ha	% of group			44.40%	22.20%	22.20%	11.10%	100.00%
	% of total			1.60%	0.80%	0.80%	0.40%	3.60%
Total		% of total		15.30%	24.90%	21.30%	38.60%	100.00%

Table 5 states that 70.3% of the whole data sample had a size of ≤ 14.99 ha. Within this group 45.10% received a business profit per hectare of $\geq \text{€}9,000$. 32.30% in the range of 15 – 32.99 ha received a profit of $\text{€}3,000 - 5,999$ and in the group ≥ 35 ha, 44.40% received a profit that was $\leq \text{€}2,999$. Thus, the data shows that there is an inverse relationship between business profits per hectare and the estate structure, measured by the area under vines in production. The Kruskal-Wallis test states that business profits per hectare is unequal through different size clusters ($p\text{-value} < 0.05$). The Chi-squared test (Pearson's chi-squared = 16.28) states that there is a weak significance relationship (Cramer V = 0.18) between the size of area under vines and the size of business profits per hectare ($p\text{-value} < 0.05$).

4. Discussion and Conclusion

By using a value added perspective, this study found that two-thirds of the sample of direct selling wineries did not compensate their input factors by assumed imputed market prices. However, to evaluate success of enterprises, several points have to be discussed. Results reveal that either assumptions of imputed market prices were overrated and consequently calculations have to be adjusted by using lower market prices, or entrepreneurs compensate their tangible and intangible input factors by business profits rather than by imputed figures such as entrepreneurial profits. Taking the first issue of overrated market prices, we can also interpret that living costs of entrepreneurial families are below market prices. Corresponding, lower (imputed) family income for non-salaried family employees might be required. This argument is supported by the fact that entrepreneurs profit from synergies in their business as they generally live on their estates and other business assets are used for private use. Thus, a imputed mark-up has to be integrated in the calculation. Second, imputed costs of interest that

was calculated as an alternative investment of tied-up equity, is overrated by 3.5% as profitability of tied-up equity might be of a lower interest rate. Annual financial statements show that a high percentage of equity in wineries is bound in fixed assets, like buildings and production facility and thus evaluation of fixed assets differs between enterprises. Third, imputed costs of interest for lease might be overrated by an average value of €1,000 per hectare. However, €1,000 per hectare is approximately the average rate of lease that can be obtained as owner of land. The research also showed that there are slight differences between the growing areas and business profits per hectare. Nevertheless, chi-squared analysis and Kruskal-Wallis test stated that there is no significant difference between the growing areas and business profits per hectare. Based on figure 3, similar profits per hectare were obtained in all the growing areas since businesses with high expenditures per hectare simultaneously receive higher revenues. Thus, growing areas with higher expenditure compensated for the expenditure with higher revenues and as a consequence variability in business profits per hectare is balanced out. The research also showed that there is a concentration of most successful businesses, measured by business profits per hectare, with respect to the size of enterprises. Enterprises that range from ≤ 14.99 ha obtained the highest business profits per hectare. Furthermore research reveals that there is a significant inverse relationship between the size of the estates and their performance per hectare, stated by chi-squared analysis and Kruskal-Wallis test ($p\text{-value} < 0.05$). This relationship might be traced back to the fact that the bigger the size of area under vines in production, the more capital-intensive the production of wine referring to personnel expenditure is. Thereby, capital-intensive production can overcompensate potential degeneration effects.

This research contributes to success factor research of small enterprises and has several limitations. The data collected is not representative of the particular growing areas, since there is a strong dispersion between and within different growing areas. In addition group sizes per growing area vary and data is not normally distributed. Thus, standard deviation shows that the sizes of enterprises is highly variable when measured by area under vines in production. Furthermore, based on the sample, the methodology is limited to descriptive statistics and non-parametric tests. Deriving from these results, further research should be conducted to examine differences with a focus on the structure of enterprises, rather than on wine growing areas.

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A Strategic Approach to the Analysis of Global Wine Industry Positioning

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Abstract

Purpose

The paper introduces a novel approach to analysing trade statistics to gain insights into the way the major wine producing countries have positioned themselves in the key markets of the U.K., the U.S. and China over the last two decades.

Design/methodology/approach

We have constructed a dataset for imports into these key markets from ‘New World’ countries (Australia, Argentina, Chile, and the U.S.) and ‘Old World’ countries (France, Italy, and Spain) for the period 1996-2012 in local currencies. We have analysed the data using Google motion charts to examine the dynamic interplay between Unit Value, Volume and Total Value over this period. This analysis has allowed us to reach conclusions regarding the competitive positioning adopted by the producing countries in terms of price and market share.

Findings

The findings suggest that France, and to a lesser extent Italy, are the only two countries that have consistently pursued positioning strategies that generate sustainable value. Other countries, particularly Australia, have been inconsistent in their positioning strategies and have failed to sustainably create value.

Practical implications

The dataset and Google motion charts will be made available to other researchers who may be interested in using it to address other questions.

Keywords: International wine markets, competitive positioning, Google motion charts

1. INTRODUCTION

The purpose of this paper is to gain a deeper understanding of the way wine producing countries have positioned themselves in the major markets over the last two decades. We bring a competitive strategy perspective (Ghemawat & Rivkin, 2010) to the issue of competition in international wine markets and are concerned with how, over time, the major wine producing countries have traded off market share and price in an attempt to maximise value creation.

Our approach to the analysis of international competition in the wine industry is novel in several ways. From a competitive strategy perspective, the value, volume and, importantly, the unit value of imported wine is a function of an exporting country's competitive advantage in a particular market. For this reason, we collected data on *imports* into key markets of the U.K., U.S., and China, rather than exports, as is customary in wine industry research. The import data was for wine from the 'New World' countries (Australia, Argentina, Chile and the U.S.) and 'Old World' countries (France, Italy, and Spain). The data (volume and value of imports) were collected for the period 1996 to 2012^[1]. Total Value and Unit Value were calculated in local currencies to avoid foreign exchange effects. We took a granular approach by breaking down the imports into separate wine categories to differentiate between bottled, sparkling and bulk wine.

The secondary methodological innovation is the method used to analyse the data. Rather than using conventional statistical techniques we have used 'motion charts' that enable us to examine the dynamic interplay between the competing countries in terms of Unit Value, Volume and Total Value.

The detailed findings are reported in the body of the paper. Our major conclusions are as follows:

- France and Italy have adopted different strategic positions in all three markets. France has positioned itself as the high price competitor and has been willing to sacrifice market share to secure and maintain this position. Italy, by contrast, has taken the lower price, high volume position and has defended this position from attacks by New World producers such as Australia.
- In the three markets we studied, France emerged as the clear winner. While its positioning has fluctuated over time, its price leadership has never been under serious challenge. Italy's position as the high volume, low(er) price player has not been as stable as France's positioning. Even in the U.S. market, where this position was most clearly evident, for a short time in the mid- to late-2000s Italy was challenged by Australia. Italy lost this positioning to Australia in the U.K. from 2000 until the very end of the decade, but Australia failed to consolidate as it took on both France and Italy. Australia sacrificed its position in bottled wine, but secured a strong position in bulk wine, yet overall it lost significant Total Value.
- In China, France has again taken the high price position and to date has been able to capture the largest market share. Australia has positioned itself as number two player behind France – and so far has been willing to sacrifice share to maintain high price (and build Total Value). To date, in the China market Australia has avoided the commoditisation trap it fell into in the U.K. and U.S. markets. It has been willing to sacrifice market share in order to maintain Unit Value, giving up share in the last few years to Spain.

The paper is structured as follows. First we discuss our method in more detail, we then present the findings from our analysis of the import trade statistics in the three key markets. Finally, we present general conclusions regarding the way the major competitors have positioned themselves in the three markets and draw out some general lessons.

2. METHOD – IMPORT TRADE STATISTICS DATA ANALYSIS

We collected data from databases on imports from ‘New World’ countries (Australia, Argentina, Chile, and the U.S.) and ‘Old World’ countries (France, Italy, and Spain). CN (Combined Nomenclature – European Commission), HTS (Harmonised Tariff Scheme) and USITC (United States International Trade Commission) codes were explored so as to understand the best way to capture the data to ensure consistency across the three countries. The data extracted were for the years 1996²-2012 from USITC (the U.S.), Eurostat (the U.K.) and UN Comtrade (China) using the 6-digit Harmonized Commodity Description and Coding System (HS) codes (220410, 220421, 220429 and 220430) as well as 4-digit HS code of 2204 (which is a summation of the four 6-digit HS codes).

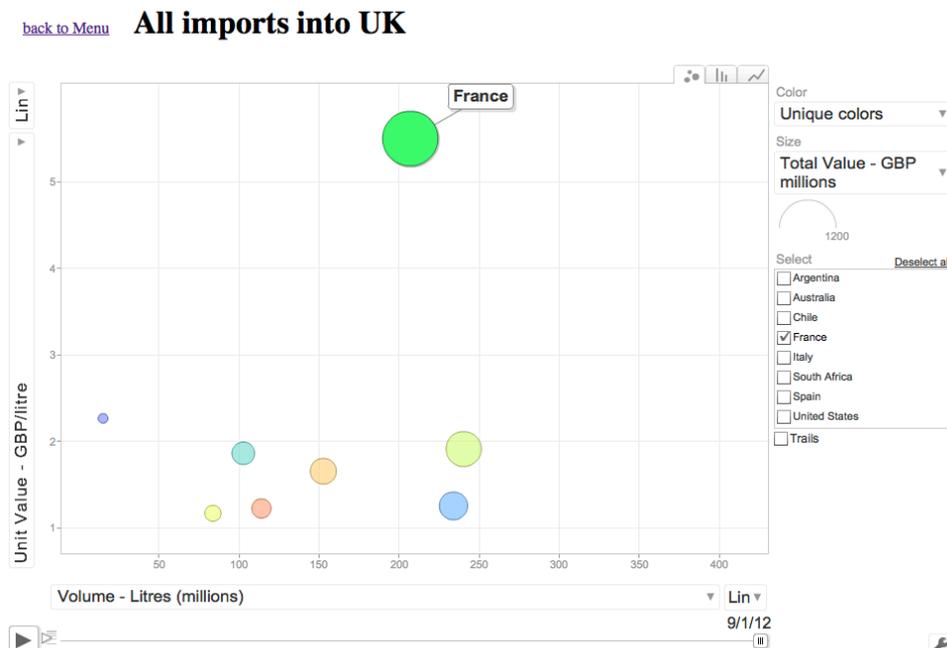
Data on Volume and Total Value was collected (and Unit Value could then be calculated) for:

- All wine HS code 2204
- Bottled wine HS 2204
- Bulk wine HS 220492 (>2 litres)^[3]
- Sparkling wine HS 220410.

Eurostat provides their data in Euros and the UN Comtrade database provides the data in US dollars. The values were converted into the local currency using the Pacific Exchange Rate Service (<http://fx.sauder.ubc.ca/data.html>), a service designed by Prof. Werner Antweiler, the University of British Columbia Sauder School of Business.

The data was then transferred to Google motion charts, which were used to do the analysis (see Figure 1 for an example chart, in this case ‘All wine’ into the U.K. in 2012).

Figure 1: Example of a Google Motion Chart



The motion charts allow the dynamic interplay between Unit Value, Volume and Total Value to be observed over time. Changes in positioning – Unit Value (effectively price) and Volume (effectively market share) and impact on Total Value – can be readily observed.

The Google motion charts are available to other researchers at <http://23inhouse.com/wine-data/charts.html>. Our dataset will be freely available to interested researchers on request.

3. ANALYSIS

3.1 The U.K. market

In 1996 France was the clear market leader in terms of Volume (All Wine, HS code 2204), with little difference between all the players in terms of Unit Value, which was quite low. By 1999 France had surged ahead in terms of Volume, with Australia, while well back in fourth position in Volume, as the clear leader in terms of Unit Value. Australia's Total Value of about GBP200 million was just behind that of Italy. Australia was very successful at aggressively building volume in the UK market from 1996 until 2007, overtaking Italy in terms of volume in 1999. Australia maintained Unit Value during this period, so that in terms of Total Value it emerged as a clear number two to France.

After 2007 Australia lost its position as France drove Total Value through increasing Unit Value and sacrificing Volume. Italy adopted the high volume, low price position and pushed Australia into an even lower Unit Value position. By 2012 Italy had overtaken Australia in terms of Volume to secure much higher Total Value (GBP465 million versus GBP292 million).

Little happened in the U.K. bulk wine market (HS code 220429) until 2009 when Australia broke from the pack and drove Volume aggressively until by 2012 Total Value reached over GBP140 million.

France's overall strong position is in part explained by its dominance of the sparkling wine (HS code 220410) market, in terms of both Volume and Unit Value. Of France's 2012 Total Value of GBP1,140 million, sparkling wine accounts for over GBP350 million.

In the bottled wine market (HS code 220421) in 1997 Australia was fourth in Volume, but had Unit Value slightly ahead of France, who rapidly built volume to 1999 when it retreated to rebuild Unit Value. By 2004 Australia had built Volume without conceding too much in terms of Unit Value and was now neck-and-neck with France. Australia's Total Value was now a remarkable GBP420 million – about the same as that of France. Italy, the third most important competitor in the market, then used low Unit Value to push for Volume, and then retreated just as rapidly.

By 2009 France had conceded Volume but clearly emerged as the Unit Value leader and, in the process, had increased Total Value to GBP550 million. By 2012 Australia had clung to Unit Value but at the expense of Volume – it was now well behind France, Italy, Spain and Chile in both Volume and Total Value in the UK bottled wine market. Australia's Total Value was just GBP140 million compared with a peak of GBP420 million in 2004.

Clearly, Australia's leadership in the bulk wine market with Total Value of GBP140 million did not compensate the loss in Total Value experienced in the bottled wine market. In the U.K. market, Australian wine had come to stand for cheap wine, and a huge amount of Total Value was lost in the process.

3.2 The U.S. market

At the beginning of the 5th boom-bust wine industry cycle (Osmond and Anderson, 1998), which started in 1987, Australia was poorly positioned in the U.S. market. France and Italy were the market leaders with France adopting the high Unit Value position with somewhat lower Volume than Italy, who was positioned as the high Volume, low Unit Value player.

In 1997 France and Italy were the major players with France in the high Unit Value low Volume position and Italy with the lower Unit Value, higher Volume position – although these positions

were not as differentiated as they were from 2000 on. By the early 2000s Australia had emerged as a threat to Italy's position, and by 2005 the two were in a neck-and-neck race with Australia just behind Italy in terms of both Unit Value and Volume.

By 2002, while France and Italy's position had been consolidated, Australia had emerged as a strong third competitor, with Volume approaching France and Unit Value slightly higher than Italy. By 2005 France's position as the low Volume, high Unit Value competitor was secured – with Total Value in excess of USD1 billion. Australia was nudging Italy in the high Volume, low Unit Value position and in the process had grown its Total Value significantly to USD3/4 billion.

In 2007 Australia faltered and its position was reversed as the Australian dollar reached a decade-long high, losing Volume as Unit Value marginally increased. For the next two years Australia pushed for Volume using low Unit Price, overtaking Italy as the Volume leader by the end of 2009. Volume leadership came at the price of Total Value which by 2009 was USD100 million less than it had been four years earlier. From 2010 Australia's Volume slipped back with no increase in Unit Value, while Italy consolidated its high Volume, low Unit Value and Total Value leadership at USD1.5 billion.

By disaggregating the market into segments, it is obvious that Australia had a very strong position in bottled wine until 2005, and the overall positioning pattern is much like the total wine market.

We observe that it was in 2005 that Australia made its push into the bulk wine market, from which it retreated in 2007 and 2008, before once again driving for Volume until 2010, by when it had secured a leadership position in terms of Volume (and Total Value – at just USD62 million). In terms of Total Value, winning in bulk wine was at the expense of hundreds of millions in Total Value overall – as was the case in the U.K. market.

3.3 The China market

In the early 2000s, first Spain and then Chile pushed Volume at low Unit Value, and then withdrew^[4]. By 2006 France had emerged as a clear Unit Value leader, at a time when Australia began to sacrifice Unit Value in a drive for Volume. During 2007 Chile again made a strong drive for Volume at low Unit Price, and Australia reduced Volume as it rapidly re-established its second position to France in terms of Unit Value.

During 2008 and 2009 both France and Australia moved in concert as they gave up Unit Value in a push for Volume. In 2010 France surged forward in terms of both Volume and Unit Value to establish a pre-eminent position in terms of Unit Value. Australia gave up Volume but gained Unit Value to become a clear follower in terms of Total Value (more than twice that of any other competitor). Spain was a clear follower in terms of Volume, with Total Value about that of Chile and Italy who had lower Volumes but higher Unit Values.

4. CONCLUSIONS REGARDING STRATEGIC POSITIONING

We have focused our analysis on the leading wine exporters France, Italy and Australia. Our analysis shows that France and Italy have adopted distinctly different strategic positions. France has positioned itself as the high price competitor and has been willing to sacrifice market share to secure and maintain this position. Italy, by contrast, has taken the lower price, high volume position and has defended attacks from New World producers such as Australia.

In the three markets we studied, France emerged as the clear winner. While its positioning has fluctuated over time, its price leadership has never been under serious challenge. Sparkling wine has played an important role in this overall positioning, along with France's minor involvement in bulk wine. France was the leading importer of bulk wine into the U.K. in 1996 with a Total

Value GBP22 million, but by 2012 was the fifth largest importer with Total Value of GBP16 million (versus GBP 141 million for Australia).

Italy's position as the high volume, low(er) price player has not been as stable as France's positioning. Even in the U.S. market, where this position was most clearly evident, for a short time in the mid- to late-2000s Italy came under pressure from Australia. This position was driven by bottled wine – Italy was the leading importer of bulk wine into the U.S. for a short period in the late 1990s, but it withdrew from this market and focused on bottled wine where its lower Unit Value, high Volume position made it the leader in terms of Total Value from 2001 onwards. In the U.K. Italy lost this positioning to Australia from 2000 until the very end of the decade when Australia failed to consolidate its position as it attempted to take on both France and Italy. As a result, Australia sacrificed its position in bottled wine in the U.K., but secured a strong position in bulk wine, overall losing significant Total Value.

In China, until the turn of the century Spain was the leading importer and was then for a short while displaced by Chile. As the China wine market developed, France emerged in the mid-2000s to take the high Unit Value position and then went on to capture the largest market share. By 2012 France's Total Value at CNY4,816 million was greater than all the other producers combined. Australia has positioned itself as number two player behind France – and so far has been willing to sacrifice share to maintain high price (and build Total Value). To date, in the China market Australia has avoided the commoditisation trap it fell into in the U.K. and U.S. markets. It has been willing to sacrifice market share in order to maintain Unit Value, giving up share in the last few years to Spain.

We contend that using price to drive volume resulted in Australian wine being 'commoditized' in the U.K. and U.S. markets, i.e., willingness to pay being continuously eroded until Australia stood for 'cheap wine' in these markets (Lewis and Zalan, 2014). The decline in the Unit Value for Australian wine can be directly attributed to the 'commoditisation doom loop' that was created as the large Australian wine companies struggled to continue to increase market share in selected key markets. Investment in large-scale production resulted in cost advantages, but required huge volumes of wine to be sold through the only available channel, the mass retailers. As the Australian wine producers kept lowering their prices to increase market share, and under increasing pressure from the mass retailers on whom they were dependent, price became the dominant component of the value proposition. This 'commoditisation' of Australian wine resulted in a progressive erosion of consumer willingness to pay and with it, declining consumer surplus. With reducing willingness to pay, prices had to be further lowered to maintain consumer surplus and sales volume, resulting in a continuing margin squeeze. In response, the wine producers sought ways to further reduce costs^[5]. and this had the result of lowering wine quality (Smart, 2010) further damaging consumers' perception of Australian wine and further eroding consumers' willingness to pay. This is a classic commoditisation trap (D'Aveni, 2010) with failing willingness to pay, prices and margins.

It is important to recognise an industry-wide commoditisation dynamic when willingness to pay declines because price is used as the primary competitive weapon. Even though Producer A may not be using price as the basis of competition, if Producer B is, the commoditisation effect may flow on to Producer A because of a halo effect around Australian wine. The halo effect is likely to be exacerbated by generic country branding like 'Australian wine'.

We speculate that the French wine producers may have also created feedback loops, but in the opposite direction; namely, using high price cues as signals of value to push willingness to pay upwards. Given that the average consumer cannot make independent judgements based entirely on the intrinsic quality of wine, and even wine experts disagree on wine quality (e.g., Weil, 2001; 2005; Ashton, 2012), willingness to pay is driven by 'objective' characteristics, including price.

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Endnotes

¹ We anticipate 2013 data will be available by the time of the conference. We expect some positioning changes may be observed, particularly in China where the wine market is developing very rapidly and is subject to changes in government policy.

² Although earlier data are available, a major amendment of HS codes took place in 1996 and as a result some codes were re-coded at the 8 and the 10-digit level. It was decided that extracting the data from 1996 onwards would provide the most reliable data.

³ A minor issue is that we were unable to get data on bulk wine that was bottled in-market.

⁴ A note of caution is in order: these early data may be highly unreliable, compared with later China data, which may be simply unreliable.

⁵ One way to reduce costs is to use acid and other additives as well as water. Although the latter practice is illegal in Australia, it does occur (private communication with winemakers). See also Jancis Robinson, "Adding water to wine, *Tasting Notes & Wine Reviews*, December 31, 2002.

Implications of strong resource capabilities in a family wine business

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◦Purpose

Family business longevity is one of the bellwether subjects of family businesses. Historically longevity has been seen through the lens of succession planning and processes, and this article is guided by this foundation of literature. However we concentrate on one aspect of the succession, that is, the resource capabilities family firms in the wine industry possess and how they relate to continuity.

◦Design/methodology/approach

Three case organizations were visited and 27 interviews conducted for this study. The sample of New Zealand family wine businesses included medium-sized family businesses with at least two generations in the business. The analysis was carried out in two phases: data management and coding utilizing NVivo 9, then further reduction and synthesizing of data through a matrix display.

◦Findings

Through a synthesis of themes based on open-coded concepts we arrived at two primary themes – Affluence and Character – which underpin resource capabilities in family winegrowers. We found that these resource capabilities can be highly influential in determining the continuity or discontinuity of a family business.

◦Practical implications

We propose a continuity matrix that summarizes the strength of character and affluence in relation to continuity.

Key words: Wine, family business, succession, continuity

1. INTRODUCTION

As one of the more fashionable traditional industries, winegrowing has the same issue as many other industries around the bellwether topic of succession (Sharma et al., 2012). Rather than concentrate on the succession process itself we focus on the resource capabilities and their role in the successful continuity of a family business. Family businesses have a significant presence in the winegrowing industry with about 70 per cent of all winegrowing businesses globally being family owned and managed (Woodfield, 2012). Moreover, there is a growing body of knowledge that specifically focuses on the idiosyncratic issues and challenges faced by family business (Sharma et al., 2012).

Originally promoted by Penrose (1959), resource capabilities are best understood through the resource-based view of the firm (Barney et al., 2001, Barney, 2001, Barney et al., 2011, Wernerfelt, 1995). Barney (2001) suggested the resource based view seeks to understand sustained competitive advantage, which is argued “to derive from the resources and capabilities a firm controls that are valuable rare, imperfectly imitable, and not substitutable” (Barney, 2001, p. 625). Resources are differentiated as tangible and intangible assets under the firms control such as management skills, organizational processes and routines, and information and knowledge (Barney, 2001). In the family business context, the resource based view has spurred what has come to be known as “familiness”:

Familiness is defined as the unique bundle of resources a particular firm has because of the systems interaction between the family, its individual members, and the business.... [Familiness] provides a unified systems perspective on family firm performance capabilities and competitive advantage. (Habbershon and Williams, 1999, p. 11)

A family business and the attributes which are idiosyncratic to that family business, contribute toward their competitive advantage. With this in mind, we question whether resource capabilities are decidedly influential in determining the continuity or discontinuity of a family business.

2. METHODOLOGY

This study is founded on data collected from 27 interviews over three case sites. The research approach was qualitative and sought understanding through “actions, events, processes, objects and actors... [where] novel and unexpected understandings” could emerge through patterns in the empirical data through a broader theoretical frame (Nordqvist et al., 2009, p. 298).

A case study strategy was implemented (Eisenhardt, 1989, Gibbert et al., 2008, Stake, 1995, Yin, 2009, Siggelkow, 2007). For this study the choice was made to minimize the number of cases but investigate all in-depth. The selection of family wine businesses was informed by publicly available information and included medium-sized family wine businesses being wineries that produce between 200,000 and 4,000,000 litres (New Zealand Winegrowers, 2013 ###). Each family business had at least two generations in the business that held majority shares. Typically across the three case sites, the senior generation owned the business while the next generation were in leadership positions including marketing, winemaker, or viticulturist. The employees that were interviewed were generally in senior management across all three case sites. Financial and human resource figures were not provided.

Without exception, senior and next generation family members employed in the business were interviewed, alongside a selection of non-family employees to encourage further useful insights

(refer Table 1 for case demographics). Each interview lasted 45-120 minutes and anonymity was achieved using aliases, fictitious locations, and company names. Observations and archival evidence provided further understanding and context about the winegrowing businesses including historical accounts and the family’s storyline.

Table 1: Basic case site demographics

<i>Case site pseudonym</i>	Generations in business	Age of Business (approx.)
<i>Merlot Family Vintners</i>	Second and third	~100
<i>Sauvignon Family Estates</i>	First and second	~40
<i>Riesling Family Winegrowers</i>	First and second	~30

The analysis was carried out in two phases: data management and coding utilizing NVivo 9 (QSR International qualitative research software), then further reduction and synthesizing of data through a matrix display using Microsoft Excel. This second phase meant taking quotes that were thematically rich and breaking them down into short sentences where convergent concepts, differences and similarities, and patterns were open coded, reduced to first order themes, then synthesized into second order themes before being aggregated into theoretical dimensions.

3. FINDINGS

Through a synthesis of themes based on open-coded concepts we arrived at two primary themes – Affluence and Character – which underpin resource capabilities in family winegrowers (Figure 1). We found that the resource capabilities can be highly influential in determining the continuity or discontinuity of a family business. Table 2 displays representative data relating to Figure 1. The terms used are a result of the iterative process of replication and pattern recognition resulting in emerging themes.

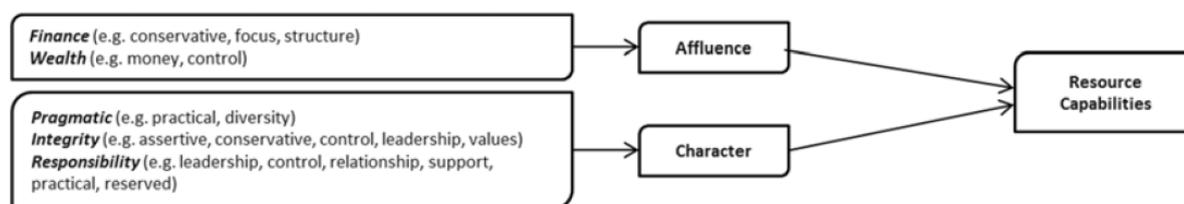


Figure 1: Resource capabilities data structure

The *affluence* theme is best illustrated through examples from each case site. First, the Merlot family emphasized being asset rich but were less concerned with return on investment. The Merlot family understated their wealth even though they had considerable land holdings, equipment, and product. There were stakeholders from the wider family who received dividends and as an older established firm the accumulation of wealth was not surprising. They maintained a manageable level of debt through a long-term orientation strategy, which contributed to their current strong financial position. The family were conservative but supported longevity in a competitive market. This meant the family and the business were not over exposed debt-wise. This strategy is in agreement with Molly, Laveren, and Deloof’s (2010) suggestion that “descendants usually have a lower willingness to take risks ... and have a stronger preference for wealth preservation instead of further wealth creation [and] try to

avoid a highly leverage capital structure” (Molly et al., 2010, p. 133).

Table 2: Resource capabilities themes and representative data

Second-order themes	First-order themes	Representative data	
Overarching dimension: Resource Capabilities			
1. Affluence	A. Finance	Q1. <i>“I suppose it gets down really how high you’re prepared to leverage yourself”</i> (Melvin Merlot)	
		Q2. <i>“We’re a firm believer in owning everything”</i> (Simon sauvignon)	
		Q3. <i>“... but it’s something (the new venture) we had to incorporate into the family because we had no means of going out and raising a shitload of capital to actually do it”</i> (Roger Riesling)	
	B. Wealth	R1. <i>“... we’re making a comfortable living now and, that’s enough”</i> (Murray Merlot)	
		R2. <i>“Everything you see here, we own and pay cash for”</i> (Simon Sauvignon)	
		R3. <i>“... harvesting – you don’t wait for a harvester, you’ve got your own. Bottling – don’t wait for wine bottlers, we’ve got our own. Bubbles. We used to have to line up with the person up the road – nah, not having that. Have our own”</i> (Grant)	
2. Character	C. Pragmatic	S1. <i>“... from the background from university – we had a professor what said hops, tobacco, grapes, go straight in and plant it. You don’t need to look at any climate and so on”</i> (Solomon Sauvignon)	
		S2. <i>“We grafted everything and then I found the root stocks [that] didn’t show much phylloxera [and] didn’t show much leafal virus [with] no scientific evidence of that but just by the eye”</i> (Solomon Sauvignon)	
		S3. <i>“... whereas Roger’s the one with the thoughts but I’m practical and I can make it work or say it doesn’t work”</i> (Ruth Riesling)	
		D. Integrity	T1. <i>“He’s a very focused gentleman”</i> (Suzie Sauvignon)
			T2. <i>“If you’re in a bloody mess you’ll never make wine, so that’s sort of been the bottom line”</i> (Roger Riesling)
			T3. <i>“She doesn’t beat around the bush and she’s got a bit of a reputation for that, to be honest”</i> (Gordon)
	E. Responsibility	U1. <i>“I’m the Chairman, Murray’s [the] Managing Director and Morgan [the] General Manager”</i> (Melvin Merlot)	
		U2. <i>“Sylvia is the boss. Like, I think you’ll find most wives in wineries. In wineries the wives are always the boss”</i> (Nathan)	
		U3. <i>“Now that we’ve gone into it being a family they are all strategically important”</i> (Roger Riesling)	

Both generations of the Sauvignon family reported they were wealthy and owned all that they have. The next generation had a similar attitude to money as the senior generation and had no intention to devalue the hard work that went into accomplishing the business. Instead they intend to concentrate on positioning their wine as a quality product as a result of not needing to be concerned about finances. In contrast, outwardly the Riesling’s family business appeared wealthy, but the corporate business model had run its course and needed reconsideration to align more with the family’s needs for a successful succession. The continual growth the Rieslings experienced left some uncertainty and elevated levels of debt when the industry reached a plateau as a result of the economic climate. They considered the debt issue to be significant enough to restructure. By balancing debt and wealth, each family was able to extend their other capabilities (human resources, plant, or equipment), and cement their competitive advantage. The control of debt became more important as the businesses developed across generations. This need for financial control could result in family businesses being reluctant to seek finance externally as it may dilute the family’s control over the business (Molly et al., 2010). Each of the family businesses investigated were wary of pursuing external finance although the Riesling family had sought external finance for a significant side project started by the next generation.

Character related to those attributes that align with integrity, pragmatism, and responsibility. Each family described their approach to business decision making as hands-on and practical. The senior generation of the Sauvignon family epitomized this. They were just as happy with

tools as they were leading the business. In contrast, the Rieslings were more business-like and had stepped away from the more practical side of the business. The integrity theme related to what individuals were known for, and how it was reflected in the family business' image. Integrity can be a source of competitive advantage, which can be reassuring to customers and suppliers (Barney, 1991). Each of the family businesses investigated had an excellent reputation and each family referred to family ownership being a factor in their integrity. At an individual level, some benefit from a reputation of being tough, professional, and business minded. The founder of Sauvignon Family Estates had a reputation for being focused and very motivated which made him come across as being stubborn. This stubbornness translated into perseverance and supported the pioneering nature of the family business especially when pursuing opportunities that work against commonsense.

Responsibilities were viewed as important but were not always obvious by the way they were assigned. For example, each member of the next generation of the Riesling family had a directorship over a function of the business which they also managed. Again, the Merlot family had assigned roles and were forward thinking about the role that another next generation family member would play when he entered the business. In contrast, the Sauvignon family had assigned roles but with less structure. An example was the dual winemaker role between siblings, and the overlapping responsibilities mother and daughter in the Sauvignon family. This overlap between generations could be interpreted as a transition period of responsibilities for the family as the senior generation reached retirement age (Handler, 1990, Handler, 1994).

As a resource, employees in each family business investigated reported their intention to stay with the family business long term. This can be an important competitive advantage for family businesses (Brigham et al., 2013). Where possible each family employed staff over contracting to fill key roles. This decision allowed the families to have control over their product, and ultimately the integrity of their business. An extreme example of retaining control over the integrity of the brand was the Sauvignon family's decision to directly employ the people that would distribute their product domestically which is contrary to normal practice. Overall, each case site was fortunate that the next generation generally filled different leadership roles which maintained the integrity of the business being run by family.

4. IMPLICATIONS AND CONCLUSIONS

Observations made during the course of this study led to questioning what points toward continuity or discontinuity of a family business. A matrix was derived from the affluence and character themes, based on the findings of this study (refer Table 2). The matrix summarizes what contributes to continuity, and discontinuity of a family business.

From observations made, both the Merlot and Sauvignon families would be assigned to the "legacy" quarter, while the Riesling family would fall into the "innovation" quarter. Riesling Family Winegrowers, although young, was the most corporatized, and found to have the least stability portraying a need to endure and reconsolidate through risk-taking. This endurance may be a result of their business being on a growth trajectory since inception, which is comparable to their stage in the business life cycle. Conversely, the least corporatized business, Sauvignon Family Estates, was found to be in a stable position, although they may consider a more formal governance structure to mitigate complacency.

Table 2: Proposed resource capabilities in relation to continuity matrix

	CONTINUITY	DISCONTINUITY
	Character (High)	Character (Low)
Affluence (High)	Legacy Stability and diversity <i>Promotes sustainability</i>	Harvest Complacency and indulgence <i>Promotes exit</i>
Affluence (Low)	Innovation Risk-taking and action <i>Promotes endurance</i>	Insolvency Uncertainty and hardship <i>Promotes apathy</i>

Further, the Riesling family will move to the legacy quarter given they had indicated their commitment to the reconsolidation of their business. One event that could mean a shift toward the discontinuity quarters is where the next generation decide to follow other interests, or if the non-executive directors retire and are not replaced. Cognizance of the implications of these situations and anticipating such possibilities, would contribute to the family business being more robust. In summary, the resource capabilities matrix is proposed as a tool for displaying the impact of decisions where affluence and character are concerned.

Succession studies recognise that approximately one third of post start-up family businesses reach the second generation however the viability for survival drops significantly when the business reaches the third generation (Ward, 1987, Kets de Vries, 1993, Astrachan and Shanker, 2003). With this in mind, future research may raise questions about whether the same type of resources and capabilities held by the start-up generation are what are needed for the second, third and subsequent generations. Any differences from generation to generation could affect the continuity or discontinuity of the family business. However, a more granular investigation would be needed to understand any generational idiosyncrasies that impact the continuity of the family business.

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Vine planting rights, farm size and economic performance: do economies of scale matter in the French viticulture sector? (*)

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Abstract

This paper assesses the existence of both greater profitability for large-scale farms and economies of scale in the French viticulture sector, thereby confirming or invalidating the argument put forward by the European Commission to justify the abolition of vine planting rights. According to this argument (1) economic efficiency increases with the extension of the vine area in vineyards, and (2) vine planting rights prevent the expansion of farms.

This article discusses the issue of economies of scale in agriculture and focuses on specific matters related to viticulture. The key issue of our demonstration lies in the impossibility of defining economies of scale by comparing the profits of farms producing different types of product at different prices. By using an assessment of these variables through FADN, it proposes and justifies the interest of using a measurement of output which is the net value added per unit of labor.

The report prepared on behalf of the European Parliament is criticized as it demonstrates a positive correlation between size and efficiency, without taking account of the broad farm gate price dispersion for wine. This article demonstrates that in the case of France, over the period 2005-2007, farm size has little impact on performance. The significant differences observed are the result of differences in the selling price of wine.

In summary, the main argument put forward by the European Commission to justify cancelling vine planting rights is not adapted to the case of France because it considers wine as a single product sold at a single price.

Key words: planting rights, wine growing farm, profitability, economies of scale, price.

(*) The authors would like to thank the two anonymous reviewers for their comments and suggestions.

The European Commission is pursuing the goal of reforming the Common Agricultural Policy through the adaptation of agriculture and farmers to market signs: the regulations are changing and interventions are gradually being redirected towards new efficiency goals on the one hand and sustainability on the other. Efforts aimed at increasing efficiency are accompanied by the hope that an improvement in the economic performances of producers will be based on increased farm size as this provides an opportunity to exploit economies of scale. According to some authors, such economies of scale can be achieved in agriculture just as in other industries (Nooteboom, 2006), even if some researchers have long contested their existence (Boussard, 1973).

The last CMO for wine, introduced in 2008, established new legislation ensuring the definitive suppression of vine planting rights. The main justification for this decision was based on the negative impact of the previous legislation on the production costs and competitiveness of European viticulture compared to New World wine producers (Montaigne, Coelho, 2006): according to the European Commissioner, M. Dacian Cioloș, “... *this analysis demonstrated that vine planting rights lead to an increase in the cost of production and are a barrier to the rationalization of farm holdings, thus decreasing competitiveness*”¹. In the months following this reform, many heated debates were held (Vautrin, 2010; Montaigne & al., 2012) concerning the existence of economies of scale in the viticulture sector and the Commission wrote a draft containing new rules for managing production potential through vine planting rights.

In the viticulture sector, increased farm size may be the result of two mechanisms: first, the promotion of economic concentration, when the total volume of production is unchangeable, through the elimination of small-scale producers. Such a phenomenon has been observed in many other agricultural segments (Kroll, 1987). While this mechanism worked well in viticulture, some researchers considered it insufficient. The suppression of vine planting rights will have no impact on this speed of change, at least in those zones where farm holdings are highly specialized in viticulture, because the mechanism depends on the life-cycle of farms and of the individual choices between sale of the land and grubbing-up of vines.

Second, the result may be achieved through the growth of certain farm holdings by planting new vines resulting in an increase in the total surface area of the vineyard. We can therefore raise two questions: first, what would be the consequences of increased production on the market in terms of prices and farmers’ revenues? While this is an important question, it exceeds the scope of this paper. Second, would large-scale farms, either newly created or recently expanded, be more efficient than the smaller ones?

Our article focuses on the final issue. We intend to determine the existence and extent of economies of scale in the viticulture segment as well as the direct link between the size of farm holdings and their profitability. At present, as a study at European level seems unfeasible due to access constraints to European agricultural data, we will focus here only on the case of France.

In the first section, we will address measurement issues relating to economies of scale in agriculture, and more particularly viticulture. Here, we will introduce an index to identify their existence and extent.

¹ E-9290/10DE: Answer provided by Mr. Cioloș on behalf of the Commission (22.12.2010).

We will then study the variations in this index, illustrating the need to take account of the significant differences in the price of wine.

In the third section, we will demonstrate that for each class of prices in the French viticulture sector, variations in profitability as a function of vine surface area do not exist or are simply erratic. Whatever the case, these variations are too weak to increase the capacity of large-scale farm holdings to achieve acceptable revenues and small-scale farm holdings do not reach such revenues.

In the final section of this article, in order to extend our discussion beyond the French case, we will demonstrate that the legislation relating to vine planting rights in the European Union did not prevent the increase in the average size of farm holdings over the past 17 years.

1. THE SIZE OF FARM HOLDINGS: AN ECONOMIC ISSUE

“Economies of scale may be defined initially as those that result when the increased size of a single operating unit producing or distributing a single product reduces the unit cost of production or distribution.” (Chandler, 1994)²

Economies of scale result from the existence of fixed costs or, in other words, the indivisibility of certain production factors, as well as from learning economies (improved skills) and economies relating to the cost of inputs in relation to changing production techniques (Vettori, 2003).

Economies of scale in agriculture

In agriculture, economies of scale are most often linked with mechanization which allows the use of more powerful and high-performance machines. However, the existence of economies of scale in agriculture has been always at the heart of agricultural studies. Some authors have contested their very existence or the extent to which they can be achieved in agriculture (Boussard, 1973 and 1987; Marshall et al., 1997; Gleyses, 2007; and initially Marshall, 1890)³. Others, without systematically questioning their existence, note their limited importance (Chavas, 2001).

With regard to the debate on the existence and extent of economies of scale, two recent studies in the dairy industry provide ambiguous conclusions: the first (Institut de l’Elevage, 2011) shows economies of scale ranging from €10 to 19 per thousand liters of milk, depending on the type of production system, for an estimated average cost of approximately €500.

If we exclude the cost of labor, these economies of scale exist for a volume of between 200 and 700 thousand liters of milk produced every year. Above this level of production, economies of scale do not exist. The main result shows that individual costs vary considerably

² Here highlighted by the authors.

³ *“In agriculture and other trades in which a man gains no very great new economies by increasing the scale of his production, it often happens that a business remains of about the same size for many years, if not for many generations”.* (Marshall, 1890, p. 238)

from one farm to another, independent of the size of the farm, a fact which can lead to very significant variations in the revenues of family labor.

A second study in the same industry in Canada (Perrier, 2011) reaches similar conclusions: small economies of scale are achieved for between 45 and 120 cows while economies of scale stabilize for larger farms. The author finds a lack of economies of scale if labor constraints are taken into account together with scattered profits: small farm holdings may be considerably more profitable than larger farms.

In the agricultural sector, the question of economies of scale is currently being reviewed, namely by taking account of environmental considerations and by establishing a link between economies of scale and economies of scope and learning. The French study of the dairy industry therefore compares the profits of specialized barns with those of farm holdings engaged on polyculture and cow breeding and suggests that self-supply (consumption of its own grain, pastureland and fodder) and the valorization of by-products (manure) balances any economies of scale achieved in specialized farms.

These studies therefore draw our attention to the specificity of the results according to the nature of the products, which can either be associated with the land (grass, grain) or removed from the land (milk). Furthermore, in all cases, these products or crops are essentially *commodities* with a single market price. The studies also highlight the sensitivity of the outcomes to the estimated remuneration of labor on farms. Thus, the decision whether or not to consider the hourly remuneration of labor can considerably alter the outcomes.

Economies of scale in viticulture

The above studies do not focus on viticulture yet it would appear important to examine this particular agricultural crop as previous studies show that the desire for economies of scale seems to be the main justification for changes to the legislation concerning the suppression of vine planting rights. Likewise, this question was also addressed in the goals of the study commissioned by the European Parliament (Sardonne, 2012)⁴.

Economies of scale are defined as the decrease in the average cost of production of ONE product when the quantities (or volumes) of that product increase.

Like most of the European viticulture segments, French viticulture is characterized by a supply of wines demonstrating varying levels of quality, with very different reputations and related to a wide range of PGI or PDO labels. Differences among wines go beyond the distinction between “Quality wine” and “Wine other than quality”. This distinction classifies farms according to the Type of Farming⁵ in the surveys and namely the FADN, a distinction adopted in the report commissioned by the European Parliament. Furthermore, these wines are generally produced in diverse geographical areas defined by law, often with heterogeneous yield constraints. Finally, wines are sold at very different prices with differences ranging from 1 to 20⁶ and above.

⁴ “The expected advantages of liberalization are related to cost and supply flexibility. It is expected that a cost reduction may be achieved by eliminating the direct and indirect costs of requesting and acquiring planting rights and possibly the economies of scale linked to more suitable sizes of vineyards” p. 26 .

⁵ See definition in the appendix.

⁶ We will provide more precise information later on.

It is therefore clear that the “wine” category does not satisfy the condition of uniqueness of the product necessary to the pursuit of potential economies of scale; the same applies to the two categories of “Quality wines” and “Wine other than quality”. This situation is quite specific to viticulture because most agricultural crops are commodities with a standard quality whose price is unique and defined by the market (the exceptions, such as the case of milk used in the production of PDO cheese, are relatively rare and concern low volumes or quantities).

Concerning our problem statement, and considering the difficulty encountered in applying this rationale to each of the 350 French designations of origin, we will adopt a differentiation for the farm holdings according to the average selling price of the wine as a proxy for homogenous categories of wine.

Our insistence on the heterogeneity of the price of wine is not intended to highlight the existence of differences in revenues based on the price (which would be a quite trivial matter). It endeavors to show the need to take these differences into account when assessing economies of scale and, more generally, the size effect on profitability. From a methodological point of view, it seems impossible to compare the production costs of two farms producing different wines, i.e. different products⁷. The concept of economies of scale can be applied to a single product or to similar products from both farms.

Accordingly, if this precaution were not taken, an evaluation of the size effect on costs or on profitability would not make sense. We will now define the relationship between economies of scale and profitability.

Economies of scale and profitability

The main difficulty in measuring costs in agriculture (the same applies to viticulture) lies in the estimation and measurement of labor costs. Indeed, for the vast majority of farm holdings, the work of the leading farmer (or owner) and possibly of other members of his family accounts for the largest proportion, and often all, of the labor used in production. Currently, this family labor is not formally paid, at least not taking into account a relatively fixed rate from one farm holding to another: it is the profit of the farm holding that is used as a means to compensate family labor.

Consequently, one cannot speak of measuring the production costs related to labor involvement. We do not, therefore, include labor in the appraisal of production costs. However, in order not to ignore the importance of this production factor, we sought to establish an economic indicator of differences between farm holdings that takes account of labor productivity but does not involve cost. The ‘net value added per worker’ calculated on the basis of the FADN data satisfies this condition. However, we must also demonstrate that the variations in this indicator are good proof of the existence or absence of economies of scale and their potential magnitude.

Let us consider the following variables:

nVA: net value added

⁷ There is no case here of economies of scope as we rank each vineyard according to the average price and quantity of an undifferentiated product.

P: wine selling price
 Q: wine production (volume)
 S: surface area of vineyard
 Y: yield (wine volume per vineyard unit)
 L: labor quantity
 C: production costs (without labor) = intermediate consumption + depreciation

By definition, for a farm producing wine and only one type of wine:

$$nVA = (P*Q) - C$$

therefore: $nVA / Q = (P*Q)/Q - C/Q$

so: $(nVA / L) * (L/Q) = P - C/Q$

therefore: $nVA / L = [P - (C/Q)] * Q/L$

so: $nVA / L = [P - (C/Q)] * (S/L)*Y \quad (1)$

In other words, the net value added per worker (nVA / L) is equal to the difference between the selling price and the cost (excluding labor) per unit of production (C / Q), multiplied by the yield and the physical productivity of labor (S / L , i.e. the surface area per worker).

Let us now focus on the variations of net value added per worker in light of changes to the unit cost and physical labor productivity. Together, these elements form the basis for assessing economies of scale if their significance decreases when the size (of the vineyard) increases.

We have already stated the need to make assumptions for a given class of selling prices; therefore P is a constant that does not depend on the surface area. The same rationale applies to yields since within the same designation of origin, yields (like prices) are equal or similar⁸.

From the point of view of the existence of economies of scale, 4 cases – and only 4 – can arise:

H1: unit costs (excluding labor) decrease and physical labor productivity remains unchanged. According to equation (1) above, it is clear that our economic indicator (net value added per worker) increases.

H2: unit costs remain unchanged and physical productivity of labor increases: our economic indicator increases.

H3: unit costs decrease and physical productivity of labor increases: our economic indicator increases.

H4: unit costs increase and physical productivity of labor also increases⁹. In this case, reasoning according to production costs alone cannot lead to a decision being taken because

⁸ In French viticulture, there is a notable exception to this rule (for the production of Cognac) which we will address later on.

⁹ We can relate to this situation a case where the unit costs decrease while physical labor productivity also decreases (although it is a very unlikely event).

the unit price of family labor is unknown by nature and we cannot, therefore, find a balance for these opposite variations. In other words, nothing allows us in this situation to say whether or not economies of scale exist. However, reviewing our indicator (net value added per worker) can help us to make a decision. For example, if the indicator increases at the same time as the size of the vineyard, this can favor the development of economies of scale.

In short, at a given price (and performance) level, the net value added per unit of labor changes to the same extent as the average unit cost, although in opposite directions thus making it a very good indicator of whether or not economies of scale exist. It should also be noted that the study for the European Parliament (Sardonne, 2013) adopted exactly the same indicator.

Finally, and most importantly, this indicator (net value added per worker) allows us to measure the effectiveness of economies of scale (when they exist) in substantially improving incomes in large farm holdings, for example by helping them to meet or exceed the minimum socially accepted income. Indeed, the net value added per worker is primarily used to pay family labor (and possibly the salaries of non-family workers). Other uses (payment of interests on loans and land leases per worker) are much smaller and we have no reason to believe they vary *a priori* with the size of the vineyard since they primarily depend on the financial situation of the farm owner and not on the business operations of the farm holding.

This indicator therefore shows whether it is possible to improve unit labor remuneration in viticulture by increasing farm size. These possible improvements in remuneration result from economies of scale, i.e. a lower unit cost excluding labor and / or improved physical labor productivity, all for a given (non-variable) level of wine selling prices.

Differences in net value added per worker between large and small farms are a good indicator of the adequacy of the EU policy aimed at fostering the growth of farms by eliminating vine planting rights with regard to its goal of improving farm performances and thus obviating the policy of supporting viticulture.

We can now discuss the economic effects of abolishing planting rights.

2. LIMITATIONS OF STUDIES NEGLECTING PRICE HETEROGENEITY

In 2011, a report prepared on behalf of the European Parliament (Sardone, 2012) addressed wine-growing issues. This report focused on the debate concerning the abolition of vine planting rights.

Some clear results

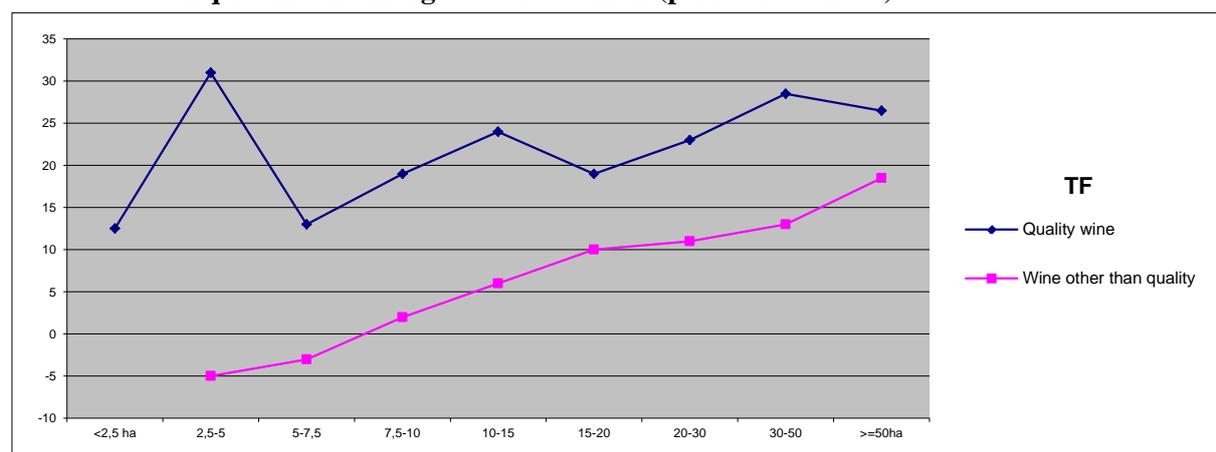
One argument developed in this study established a relationship between the profitability (as measured through the Net Value Added per unit of labor) of the farm holdings and the different sizes of the farms¹⁰. The data considered was provided by FADN for the period

¹⁰ “Currently, the existing economies of scale in viticulture (see §3.2.1; Cembalo et al., 2010) largely dependent on mechanization (Pomarici et al, 2006; Galletto e Barisan, 2007), may, in the event of liberalization, determine a pressure towards expanding vineyards. Such a phenomenon would accentuate the split between capital intensive processes based on large vineyards which may become larger, and small labor-intensive farms. In such a situation, the competitive pressure of larger farms on the smaller units may, in principle, determine the

2006-2009. With regard to France, only two regions were considered: Aquitaine and Languedoc-Roussillon (Graph 1). The study distinguishes between farms belonging to the different ‘types of farming’ (TF): ‘grape growing with designation of origin’ and ‘other grape growing’.

This study highlights a strong trend towards increased profitability when the surface area of the vineyard increases. This is true for the case of the ‘other grape growing’ TF and for the ‘grape growing with designation of origin’ TF, despite a slightly reduced significance for the latter.

Graph 1 – Farm net value added per average work unit per category of vineyard (k€awu) - Aquitaine and Languedoc-Roussillon (period 2006-2009)



Source: Sardone et al., 2012 – p.77, figure 3.9 (Data source: EU-FADN – DG AGRI)

Some comments about this study

It should be noted that considering two regions together may influence the results. This is not of consequence for the “grape growing other than quality” TF, only available in Languedoc-Roussillon, but for the “grape growing with designation of origin” TF where 1/3 of the surface areas are located in Languedoc-Roussillon and 2/3 are situated in Aquitaine. These two regions are characterized by designations of different origin and therefore by different price levels. This explains why profitability in Languedoc is clearly lower than in Aquitaine. This situation, combined with the presence of larger farms in Languedoc, may affect the interpretations of the observations. “Quality wine” and “Wine other than quality”

One should also notice the distinction between the influences of the two TFs (“Quality wine” and “Wine other than quality”) in distinguishing wine selling price levels. However, this distinction is not sufficient. In Languedoc-Roussillon, in the case of the “wines with designation of origin” TF, the coefficient of variation (among the farms) of the selling price is approximately 0.60, which is relatively significant. Moreover, several direct relationships exist between farm size and selling price. For example, for a surface area of vines of more than 50 ha, the average price is around €75/hl in contrast to a price of less than €40/hl for farm sizes between 10 and 15 ha. Establishing a link solely between profitability and the size of the vineyards is relatively restrictive, even if our reasoning goes from one type of farming (TF) to another.

marginalization of the latter. Indeed, with the abolition of planting rights, small labor-intensive processes are exposed to the risks of shrinking.” (Sardone & al. 2012, p. 89-90)

Another interesting point highlighted in this study is that, considering the two regions globally or individually for whatever TF considered, independent of the size category retained, profitability never reaches a high level; in all situations the values are below the average profitability of French agricultural farms (i.e. approximately €31,000 per unit of labor, period 2005-2007).

Accordingly, if the study quoted above were to take into account other winegrowing regions in France and include differences in the wine selling prices, the results and conclusions would be considerably different.

The selling price of the wine varies considerably from one farm to another. These variations are mainly related to the different designations of origin (Delord 2011). Even limiting the boundaries of our analysis to the regional level, the differences are significant (see Table 1).

Table 1 - Distribution of farms represented according to the selling price of the wine and the location

wine price (€/hl)	Regions or areas									Total France
	Cham-pagne	Loire Valley	Bur-gundy	Alsace	Poitou-Char.	Aquit.+MidIP	Rhône-Alpes	Langue-doc-R.	Prov.+Corsic ^a	
none sale	0	5	37	745	488	77	91	0	11	1,454
>0-75	0	567	0	0	1859	695	546	8,164	1,331	13,382
75-200	0	1219	388	122	326	1,496	1,078	1,491	1,603	9,949
200-500	171	505	1,544	548	0	1,386	1,212	588	822	7,536
500-1,000	2,785	65	740	687	0	316	316	0	259	6,048
>=1,000	3,649	0	250	0	0	47	47	0	5	4,029
together	6,605	2,361	2,959	2,102	2,673	4,029	3,288	10,243	4,032	42,398
yield (q/ha)	131	68	76	96	131	63	66	74	60	76

Source: FADN-France, constant sample 2005-2007– authors' computation

Let us now identify some possible variations in profitability for homogeneous groups of wine according to the size of farms in the French viticulture segment.

3. SURFACE AREA, PRICE AND PROFITABILITY IN VITICULTURE

Because of the difficulty encountered in accessing FADN databases for all European countries, we decided to limit our analysis to the case of France. We consider a constant sample for the period from 2005 to 2007: from a total of 42,400 farms (viticulture), a sample of 797 was surveyed (for more details, see Appendix).

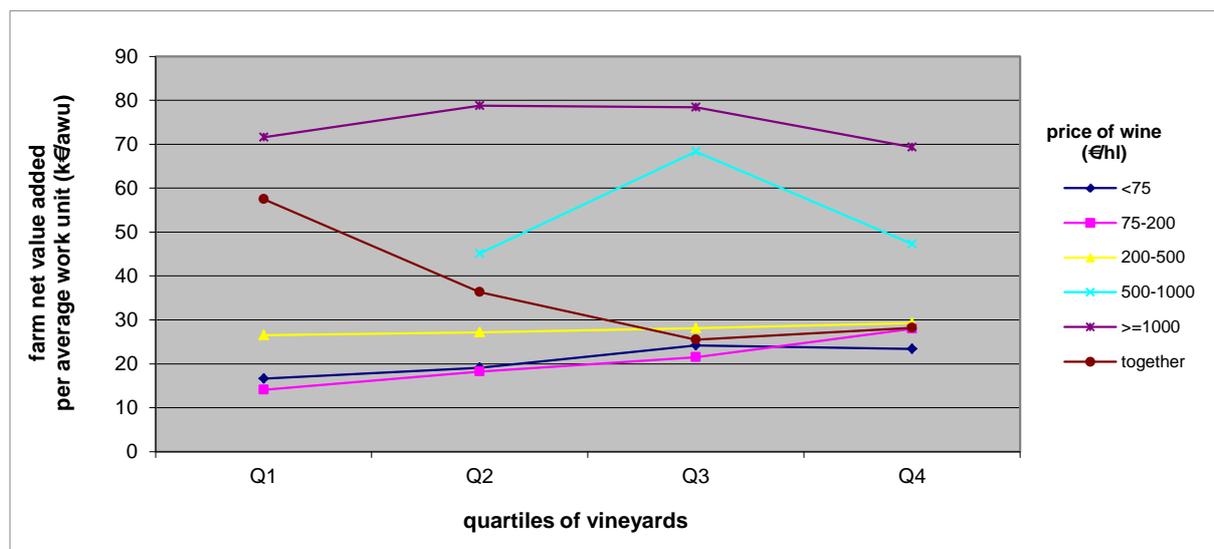
Differentiation according to wine selling prices

We have already emphasized the need to take account of regional differences in wine production (beyond the traditional distinction between viticulture 'with' or 'without' designation of origin) and differences in the price ranges for those wines. We will satisfy this obligation by identifying five price levels. Moreover, considering that the distribution of French farms (viticulture) according to their surface area varies considerably from one price

range to another, we chose not to define categories of surface area with fixed boundaries but to use a distribution in percentiles, in this case quartiles (the boundaries are provided in the appendix).

Among the grape farms with a high average selling price (i.e. greater than €500/hl), i.e. accounting for 24% of French specialized grape farms, surface area is not a significant factor in explaining the variation in the profitability of labor (see graph 2). For grape farms with a grape price ranging from €200 to €500/hl (i.e. approximately 18% of French farms specialized in grape growing), there is an increasing labor profitability trend which is nevertheless relatively, ranging from 10% in the first (<7.47 ha) and the last quartile (>20.8 ha).

Graph 2 – Profitability by wine price classes



Source: FADN-France, constant sample 2005-2007– authors' computation

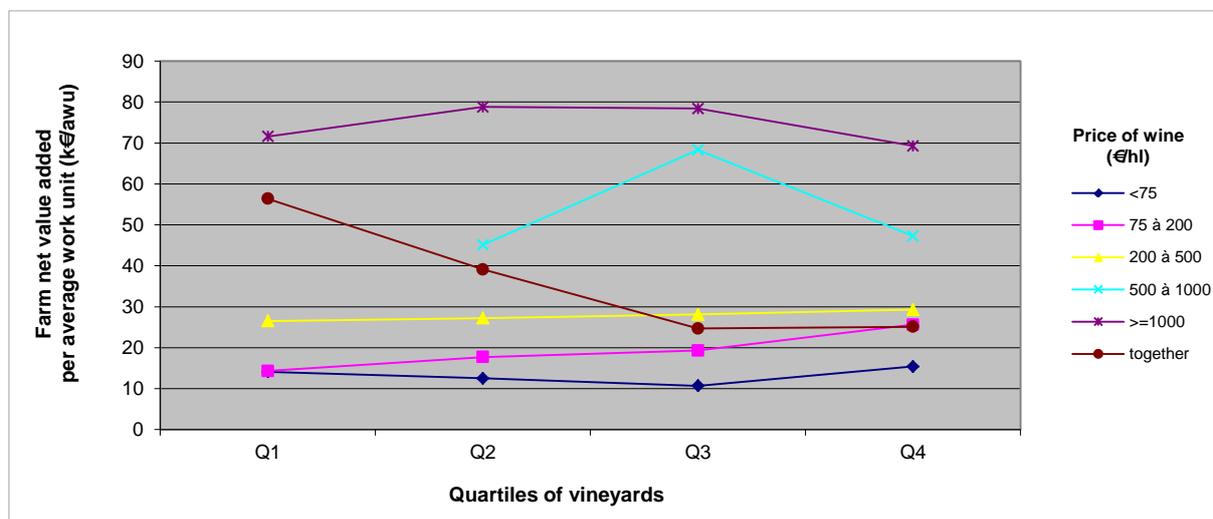
Whenever the price is lower than €200/hl, the variations in labor profitability are more significant and almost regular: between the 1st and the 4th quartile, it increases by about 50% for the grape farms selling wines at a price below €75/hl (35% of French farms specialized in viticulture) and it almost doubles for grape farms selling wine at an average price ranging from €75 to €200/hl (24% of French grape farms specialized in viticulture). Likewise, in this case, it is the increase in the physical productivity of labor (i.e. the number of hectares of vines per unit of labor) that is the main factor underlying the variations.

Price and yield

The grape farms with a price below €75/hl are quite heterogeneous: a proportion of these farms (i.e. about 1/5) are located in the Poitou-Charentes region where the production of PDO Cognac (distilled from wine) is predominant. By taking account of the special conditions of this production, and in particular the relatively high yields, the profitability of these farms is very high. We do not need to treat farms producing Champagne in the same way (they also have very high yields) as they are sufficiently isolated in the category, representing a price of more than €1000/hl price.

If we exclude the grape farms in the Poitou-Charentes region, the profitability of selling at less than €75/hl is significantly lower and, most importantly, fluctuates *erratically* according to the surface area (see Graph 3).

Graph 3 - Profitability by wine price categories, not including Poitou-Charentes



Source: FADN-France, constant sample 2005-2007 – authors' computation

We should notice that, in the case of grape farms selling wine at low prices, the level of profitability is low. Even in the case of large farms (i.e. farms included in the last quartile, owning more than 26 or 27 ha of vines), the value does not exceed €8,000 per worker; it reaches €4,000 when the selling price is lower than €75/hl; even if we exclude grape farms from the Poitou-Charente region, the maximum values would reach €5,000 and €1,500 respectively.

Among those farms obtaining less than €200/hl, such a level of profitability is not sufficient to pay for labor according to the minimum legal labor rules: the minimum wage (SMIC in French) is about €20,000/year for this period, when the cost of social protection is included. After incorporating taxes, the payment of interest on debts and land rental (*fermages*), the revenue per unit of labor never reaches the minimum wage level. For prices ranging from €75 to €200/hl, revenue increases considerably (almost doubling) between the 1st and 4th quartiles; however, if we exclude the Poitou-Charentes region, it remains below the minimum wage. For prices below €75/hl and excluding Poitou-Charentes, the revenue per unit of labor varies erratically when compared with the areas of vines and always remains inferior to half of the minimum wage.

This minimum income level can only be reached in the case of average selling prices ranging from €200 to €500/hl. Even then, it only slightly exceeds the minimal wage in the same way (i.e. approximately 10 percent), independently of the quartile considered.

A synthetic overview

An initial attempt to summarize the results is provided using a Multiple Correspondence Analysis combining the variables that may have an impact on profitability for every farm: size of the vineyard, physical productivity (surface per unit of labor), yield (volume of grapes

harvested per unit of surface area), average selling price and profitability (net value added per unit of labor). These are the modes of those variables that we did split in classes. The French wine-growing regions are included as additional variables, but not in the first step. These variables were not included *ex-ante* to determine the values of the axis and we therefore simply added these supplementary variables to the axis afterwards.

In the first 2 axes – among 27 possibilities – there is an overall contribution of 24% to total inertia (see graph 4 in the appendix). Of the 27 modalities of the variables, 18 have one correlation (squared-cosine) greater than 0.1, of which 12 are greater than 0.2. Graph 4 introduces a “scaphoid” (here a horizontal “U shaped” curve).

If we consider typology, the modalities of the 5 variables are represented in the scaphoid in a logical order. However, their signification is not the same: profitability (red in the graph) and wine price (yellow) go in one direction (‘upstream’), while the representation of the surface areas (green) and physical productivity (blue, measured as hectares per annual work unit) go in another direction (‘downstream’).

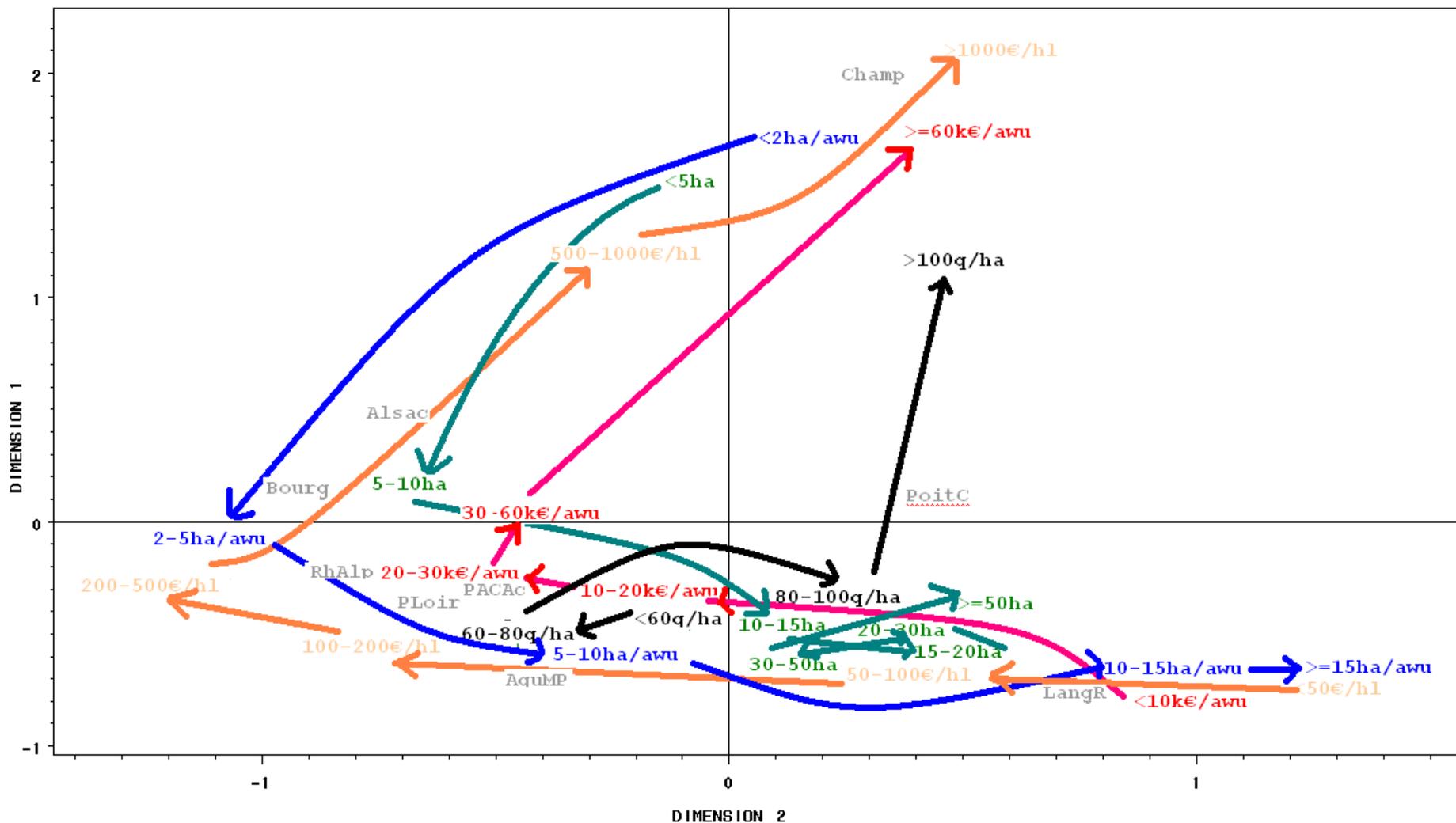
The yield (measured as quintals of grapes per hectare – black), whose modes are put together near the center of gravity, is independent of this order except at the point where the higher yields (> 100 q/ha) are located in an area of high profitability and high prices, i.e. close to the Champagne area. We therefore notice the very specific position of Poitou-Charentes in the graph, located between profitability and high yields (Champagne) and the low prices with high physical productivity (surface per labor unit) typical of Languedoc-Roussillon. This representation therefore confirms that it is necessary to study each region individually.

As in the entire TF, physical labor productivity (i.e. the number of hectares per worker) seems to be relatively dependent on farm size. However, in the case of the TF specialized in grape growing, physical productivity does not provide a significant explanation of the differences in productivity and the differences in income; it provides a contrasting explanation to what we would expect. The key factor, which is positively related to profitability and revenues, is the price of wine.

Our results therefore show that the profitability of farms is rarely more important in large-scale farming concerns than in smaller ones. This association is only true when the price of wine is low. In the case of a particular zone (Cognac), the increase in profitability for large farms holds, but when the profitability of small farms is already significant. For the remaining regions of France and for low prices, the increase in profitability is high in terms of relative value but modest in terms of absolute value: the profitability levels reached by large farms are too low to allow the average revenue per unit of labor to reach the minimal legal wage in France. Accordingly, it does not seem feasible for the abolition of vine planting rights in France to impact all the categories of “sizes” and “prices”. Consequently, it would not lead to an improvement in the profitability of farms or, by extension, to an improvement in grape growers’ incomes. In short, the wine policy would not be effective.

GRAPH 4 - FACTORIAL CORRESPONDENCE ANALYSIS

FCA 1*2 net value added per worker - price - vineyards - vineyards per worker - yield



Source: FADN-France, constant sample 2005-2007 – authors processing

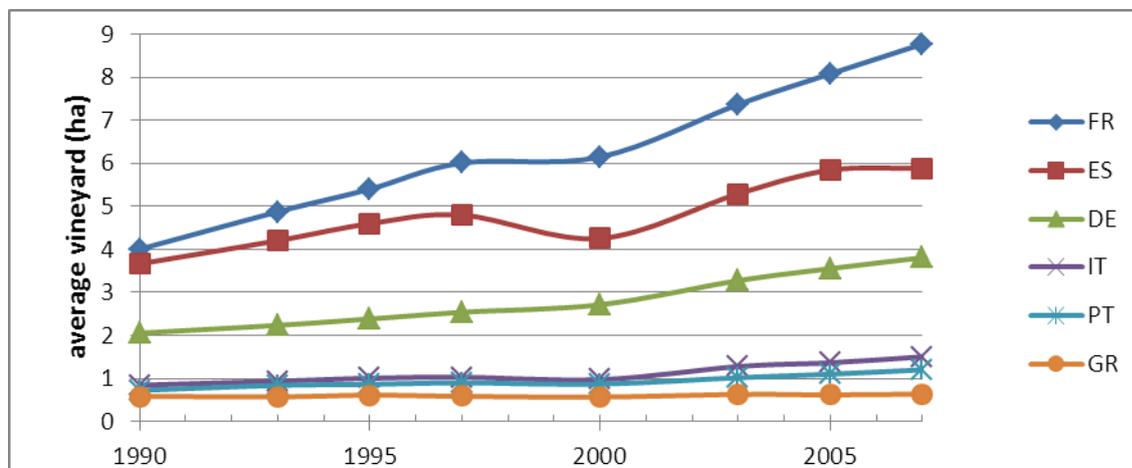
4. CONCENTRATION OF EUROPEAN WINE PRODUCTION

There is another way in which to examine the potential impact of cancelling vine planting rights on grape production: we should look at the evolution of the production structures over time. One of the arguments put forward by experts supporting the suppression of vine planting rights states that vine planting rights would ‘freeze’ the production structures, preventing the expansion of farms in Europe and therefore hindering the improved profitability associated with the expansion of vineyard surface areas.

The progressive growth of farms

Eurostat data shows that, among the oldest member states of the EU, domestic vineyard surface areas decreased over the past two decades (1990-2007) by factors ranging from 35% in Portugal to between 10% and 20% in Italy and France and a little less than 10% in Greece, Spain and Germany.

Graph 5 – Average vineyard surface area by farm cultivating vines (ha)



Source: Eurostat – authors processing

At the same time, a considerable number of farms producing grapes disappeared entirely, or at least the farms no longer produce grapes. One of the direct consequences of the decrease in surface areas is that the average size of farms has increased considerably (see Graph 5). In France, Italy and Spain, the average size of farms in the viticulture segment almost doubled during this period.

On the evolution of regional vineyards

Consequently, while national vineyard surface areas decreased over the past two decades (and the same phenomenon was observed in many regions), we nevertheless note that in some regions, vineyard surface areas actually increased: +40% in Extremadura, +20% in Burgundy, Alsace and Champagne-Ardenne and +5% in Catalonia, Rioja, Castilla-y-Leon, Aquitaine, Baden-Württemberg and Friuli-Venezia-Giulia. Finally, we can also note that these ‘evolutions’ in the vineyards as well as the in every European country do not generally benefit the regions that *a priori* enjoy more favorable conditions for planting and developing vines.

In short, the persistence of a vine planting rights system in Europe appears to be compatible with vigorous growth of farm sizes while also facilitating the transfer of vine surface areas between regions, at least over the past two decades.

5. CONCLUDING REMARKS

This work has established that from a theoretical point of view the net value added per worker is a good estimator for economies of scale. Further, the use of this estimator is quite interesting as it is almost impossible to measure economies of scale directly (i.e. a decrease of average cost when the farm size increases) in agriculture due to the non-fixity of the cost of family labor.

Furthermore, this work demonstrates – at least for the French case – that the performances of farms growing grapes are only slightly influenced by their size. Differences in profitability between farms are based on differences in the selling price of wine. These differences are related to the location and the designation of origin (PDO wines), i.e. influenced by the control of the supply and its potential, the surface areas and the means used to manage vine planting rights in every country, region or PDO.

When large farms enjoy profitability higher than that of small farms, i.e., when the selling price is low, the levels of profitability reached by large farms do not avoid low incomes, at least if we take account of the legal minimal wage.

We noted that, despite the existence of regulations governing vine planting rights, European farm holdings recently enjoyed a period of considerable growth with regard to average size as well as demonstrating a change in geographic location.

Furthermore, and in order to find a solution to this problem, *ceteris paribus*, it is possible to expect that an increase in vine plantings will lead to market imbalances (*plethora*). This would lead to a negative impact on prices and therefore on the profitability of farms. Consequently, further public intervention would be required to regulate the markets and maintain grape growers' income.

Another important point to be stressed is the need to find a balance in the markets, but this debate goes beyond the abolition of regulations governing production and trade. In summary, it would be necessary to take account of the organization of the value chains, the sharing of value-added and the means of obtaining access to the land markets.

APPENDIX

Sources, methods and definitions

FADN: is an annual European survey focusing on the economic data of farm holdings. Depending on the European Commission, the constraints for accessing the database are significant. In this study, we focus on the French FADN for the period covering 2005-2007. From 2008, access to the database became more complex. In order to improve the reliability of the results, we used average data for the three-year period (2005-2007) concerning the variables related to the farm holdings using a “constant sample” (i.e. using the same farm holdings available across all three years).

Eurostat: Eurostat provides results from agricultural censuses and surveys relating to the structures of agricultural farm holdings. Data is available for every country of the EU-28.

Net Value Added: it includes ‘value added’ (sales + stock variations + residual product + subsidies – intermediary consumptions) less depreciation; it is included as a proportion of annual labor. ‘Net value added’ is a good indicator of labor profitability in agricultural farm holdings.

SGM (Standard Gross Margin): this is a measure of the economic dimension of farm holdings. The regional SGM coefficient of a crop or livestock item is defined as the value of output from one hectare or from one animal less the cost of the variable inputs required to produce that output.

Types of Farming (TF): this characterizes the orientation of production at farm level according to the contribution of each crop or animal to the total SGM of the farm retained. For farms specialized in viticulture, there are 2 main types of farming (TF) in viticulture: “wines with designation of origin” and “other wines”.

Definition of quartiles

For graph 2:

Division into quartiles according to the number of farms after extrapolation (number of farms represented below) ranked according to the area under vines for each one of the five categories of wine sales.

The upper limits established in hectares of vines for each quartile are defined below:

Wine price (in €/hl)	Upper limit (in ha) of vineyard surface for ...		
	... first quartile	... second quartile	... third quartile
0-75	13.00	17.58	25.69
75-200	9.58	16.77	26.97
200-500	7.47	11.86	20.84
500-1,000	1.90	2.88	7.24
>=1,000	2.59	4.49	6.62
together	6.94	12.61	21.60

For graph 3:

Wine price (in €/hl)	Upper limit (in ha) of vineyard surface for ...		
	... first quartile	... second quartile	... third quartile
0-75	12.61	17.58	25.919
75-200	9.58	16.61	26.61
200-500	7.47	11.86	20.84
500-1,000	1.90	2.88	7.24
>=1,000	2.59	4.49	6.62
together	6.50	11.86	20.19

Graph 6 – Axis describing the multiple factor analysis

The CORRESP Procedure					
Decomposition of <inertia and Khi 2					
Value singul.	Inertia main	Khi 2	Per- centage	Percent. cumulative	
					3 6 9 12 15
0.82466	0.68006	211326	14.78	14.78	-----+-----+-----+-----+
0.64686	0.41843	130024	9.10	23.88	*****
0.55573	0.30884	95970	6.71	30.59	*****
0.53044	0.28137	87434	6.12	36.71	*****
0.51529	0.26553	82511	5.77	42.48	*****
0.48963	0.23974	74497	5.21	47.69	*****
0.47375	0.22444	69743	4.88	52.57	*****
0.46906	0.22002	68370	4.78	57.36	*****
0.46327	0.21462	66692	4.67	62.02	*****
0.44891	0.20152	62620	4.38	66.40	*****
0.44199	0.19536	60707	4.25	70.65	*****
0.43855	0.19232	59763	4.18	74.83	*****
0.41126	0.16914	52558	3.68	78.51	*****
0.40127	0.16102	50036	3.50	82.01	*****
0.38569	0.14876	46225	3.23	85.24	*****
0.37896	0.14361	44625	3.12	88.36	*****
0.35417	0.12544	38978	2.73	91.09	*****
0.33889	0.11485	35688	2.50	93.59	****
0.31778	0.10099	31381	2.20	95.78	****
0.27492	0.07558	23487	1.64	97.43	***
0.24776	0.06138	19074	1.33	98.76	**
0.20453	0.04183	12999	0.91	99.67	**
0.12314	0.01516	4712	0.33	100.00	*
Total	4.60000	1429423	100.00		

Source: FADN-France, constant sample 2005-2007 – authors' computation

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New Technologies & Unefficiency In Winemaking

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Abstract:

Production of wine is separating into industrial and hand crafted wines. Wine production is getting more projectable and constant compared to the proceeding 5000 years, but in some cases it gets more and more complicated. Depending on the demands of the customers, wine making should be done simple and safe. The winery equipment ideally supports the aims of the wine producers and the consumers or customers. The targets yield, efficiency, blank wine and safe products and their influence on the complexity in wine production are discussed. As wine taste is judged by the consumer and not that important for the acquisition of wine at the point of sale (Szolnoki 2007), taste is not respected in this article.

- Purpose: less tools, additives and machinery for handcraft wine making, more security for mass production
- Approach: historical development, technical alternatives, customer needs
- Findings: comparing wineries
- Practical implications: less technique, courage to unfiltered, unpumped wines

Key words: process equipment production efficiency security

Introduction

Winemaking was physical strain for more than 5000 years. Wine was a side product to a self supplying agricultural population in Europe which was not very secure in harvest, quality and taste. The struggle in the vineyard was often destroyed, by weather or pest. As the harvest and the fermentation was not safe, the remaining wines were valuable - no matter how they tasted - and kept for bad times, as long as they were stable, stabilized by alcohol, pH, acetic acid, anaerobic conditions. It was consumed for nutrition, or to disinfect the water with alcohol and low pH (Dolara 2006).

1. TOOLS IN WINE MAKING

Labour, jars, barrels & amphoras were the only valuable production tools for thousands of years. The containers were produced and used for - not only wine - and - if capacities were rare - they were used together for wine and other fruits, herbs or water-. Diluted wine - ore wine addition to water - was necessary to make dirty water safe by suppressing pathogenic germs with alcohol and low pH (Speth 2006). On the other hand water was used to fill up barrels for transport or sale (Rhein 2012).

Really needed to make a wine are since the middle ages:

- one container (amphora, pottery, barrel) - and
- time.

Modern wine making since 130 years needs:

- presses
- tanks
- finings, additives and preservatives
- filters, filter aids
- pumps, pipes & hoses
- bottling machines, corkers, labeling machines,

Modern wine making since 40 years needs:

- traction engines, harvesters, grape wagons, fork lifters,
- filter presses, flotation, decanters, centrifuges, flash détente, gulf stream
- lots of tanks, rotary tanks, chilled tanks. for the steps between
- finings, additives and preservatives
- filters, filter aids
- heat exchangers,
- pipes & hoses
- piston-, membrane-, impeller-, peristaltic-, rotary lobe-, progressing cavity centrifugal pumps
- temperature, pressure, CO₂ contents measurement & control
- CPUs, Bus systems
- nitrogen, carbon dioxide, pressurized air,
- cooling - & heating systems,
- CIP cleaning,
- waste water treatment
- rinsing machines, bottle inspectors, bottling machines, corkers, filling level detectors, labeling machines, x-ray inspection (Heuft 2014), packers, palletizer...
- Management systems, ecological agreeableness, warranty, product security

Nowadays harvest are safe in a certain range, production methods are calculable and the wine is cheap. 2,84 [€] is the average price for a bottle, that is payed in Germany 2013 (Dierig

2014).- But wine can't be produced for that price in a classical way.

As we know from meat industry it is possible to use the entire animal, even bones- and skin. Pork meat is at 1,60- [€/kg] (BLE 2014) at the moment, the price for the consumer is down to 4,- €(Kneser 2013)-. To produce cheap wine means to extent yield in the vineyard with fertilization and pesticides. Then all residues are extracted, like the bones of the pigs, skins, gut.... (Alfa-Laval 2004), but prices will decline.

Naturally or technically excreted wine substances are recovered and treated to a certain wine quality, blended back to the wine, or sold in cuvées as cheap wines.

2. YIELD & FIELD: HOW EFFICIENT WINE MAKING CAN BE?

Although worldwide wine growers reduce their yield from the vineyard (Trought, Mike; Neal, Sue 2013), wine makers in the cellars extract the remaining wine to a high extend.

Why not use the grapes of the vineyard and extract less in the cellar?

The recovered wine out of layers (Fig.:1 Mass flow in wine making) has to be treated afterwards, to clarify the extract from turbid substances, that already had been settled down with lees or yeast. Economic calculations respect the

- depreciated value of recovered wines,
- additional expenses for bentonite, PVPP and other maturation aids
- additional steps need additional labour costs.
- for the filtration extra efforts have to be respected, as recovered wines never enhance filtration
- higher risks for stability and taste during shelf life of the wines.

The value of the recovered wine is often rated as the value of normal wine of the winery, although it will never taste and behave like the original wine. It should be compared to overproduction Wines, that spoil the prices.

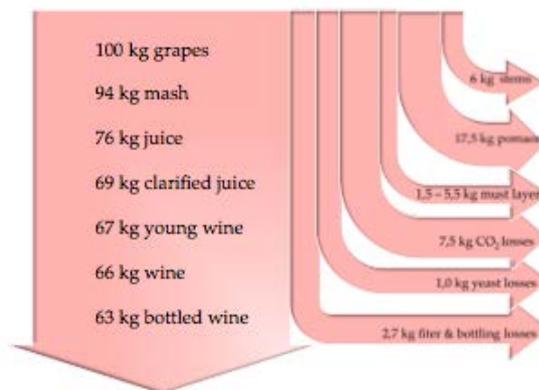


Fig.:1 Mass flow in wine making (Freund 2013)

2.1. Machinery to recover wine:

Machinery in wine industry is very poorly used, compared to other beverage and consumer goods sectors. Presses and must treatment is done 5 - 7 weeks a year, compared to 50 weeks in brewing - or food industry. Return on investments are 10 time slower than in the consume food production. Not used machinery suffers from the influence of gravity, shafts bend, and, when



Fig.: 2. Equipment of a modern minimalist in wine making - press & mash tanks

used again, the eccentric forces of pump shafts damage the mechanical seals. Vacuum rotary filters for instance tend to modify from the cylindrical form in direction of droplet shape just by gravity, if not used for a long time.

Stainless steel lasts for an long time, if treated well. But, technical progress goes on, and often a stainless steel machinery is kept,

although it is hardly used anymore, just for an extraordinary harvest, where it might be useful. These assets are dead capital, that block space, ideas and new technologies often for two or three generations of wine makers.

The tools to win back wines are:

- filter presses,
- vacuum rotary filters,
- decanters,
- centrifuges
- tanks

usually in combination with pipes and hoses and filters. Each step needs at least one more tank.

2.2. Hazards of recovering wine from layers

Recovered wines run hazard to

- spoil the taste by microorganisms,
- polyphenols, that might be extracted from the layers,
- from proteins, that may form turbidity and haze, as the sedimented substances are less soluble than the supernatant.
- Pesticides and heavy metals (copper) usually settle with the yeast. Recovering the wine may bring them back into the fluid phase, and increase chemical hazardous values.
- In times of food safety investigations by the state and the retailers an increased risk has to be respected for economic efficiency calculation.
- Finally: A good wine was never improved by recovered wines
- A winery is often judged by its worst wines and not by its top products. This means, that second or third level cuvées can harm the image of the main brand.

3. CLARIFICATION: HOW BLANK A WINE SHOULD BE?

Clarification was getting important, since wine glasses and glass bottles got affordable for the average wine consumer. Industrial bottle production (since the middle of the 19th century) made wine sellable in small portions, also exportable beyond the villages to far away customers (by train, ship, later lorries). Quality in some cases got visible through the transparency of the bottles. Turbidity is a hint for microbiological spoilage or not enough time during maturation. So filtration came up and fining with additives.

Besides Cleaning, and bottling the fining and clarification of the wine is a big part of the work in the cellars nowadays.

3.1. Tools for clarification:

- chemical additives, SO₂, isinglass, egg albumines, PVPP, bentonite, kieselguhr...
- flotation, centrifuges, decanters
- filter presses, frame filters, horizontal filters, cardboard filters, candle filters, membrane filters, cross flow filters,
- photometers

3.2. Hazards & chances of unfiltered wines

Although the wine consumer usually accepts deposits in a wine bottle, and drinks the wine at candle light illumination.



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Fig.: 3. Equipment of a modern minimalist in wine making - the cellar

Why have wines to be filtered blank to stand a halogenic bulb light to values under 0,5 NTU, and stay blank for 2 years & longer?

Beer drinkers accept unfiltered beer, accept a certain haze, if declared as wanted or as speciality. Filtration removes healthy substances from the wine, like fibre or yeast. Not filtered wine can be advertised as a more healthy and natural product.. Production of non filtered wines certainly needs more hygienic efforts, flash pasteurization or a pasteurization. This assumes to check, control and avoid oxygen uptake before (& after) pasteurization.

As filtration is rather labour and cost intensive, combined with lots of pumping and oxygen uptake, non- filtration should be an alternative production method. Sparkling wines with bottle fermentation are usually not filtered and have their market shares on a higher price level. Some American wine makers propagate unfiltered wine, but in some cases with the addition of Velcorin (dimethyldicarbonate) which needs dosing equipment that complicates the process again and has to be explained to the consumers.

4. PRODUCT SECURITY: HOW SAFE A WINE HAS TO BE?

Brands & retailers need product security. Effects of contaminated products by microorganisms, broken glass, disinfectants and chemicals in the wine are the worst cases for the bargains with wine. As products are delivered all over the country, Europe or world wide, the consequences of deviations in quality and safety are in the end expensive. Calling back of products will cause a loss of customers, which have to be won back with high expenses in marketing activity. Price levels have to be built up again. Companies might be threatened in their existence.

4.1. Tools for product security

- kieselguhr filters, sheet filters, cross flow filters, membrane filters
- batch tracing systems
- automatic cleaning systems (for mass production)
- laboratories (for mass production)
- cleaning disinfection agents detection
- flash pasteurization, chamber- or tunnel pasteurizers (for mass production)
- best before indications (for mass production)
- inspection machines (for mass production)
- x-ray inspection of each bottle (for mass production & brands)
- logistic systems with tracing, data loggers (for mass production)

4.2. Hazards & chances of product security

Product security enables wine producers, to sell their wine world wide. It is necessary to minimize the risk, of losing the efforts for packaging, logistics, transports, building up a clientele, an image, a name. Certainly it confronts with new competitors and rules in other regions, and price levels, which tend to be lower, the farther away the wine is delivered. Product security is e important for consumers, who might be harmed physically. Retailers as customers loose economically, if bad products are indicated by the newspapers, by internet. Risks and consequences can be calculated and have to have an assessment of the products, if wines, tools, production methods, additives, package materials, customers, supply chains or even employees change.

Certificated quality systems and reviews of the organization might help to reduce risks. In the end investigations have to assure and prove safe products. If wine is produced just for a small region, or the wine maker knows all his customers, things are much easier, and false products

can be replaced by an other - hopefully good bottle - of wine.

Conclusion:

Recovered wines are in competition to the cheap wines, that spoil the market, which come in tank lorries ready to be racked on bottles for 0,20 - 0,60 €/l.

In case of investing in centrifuges or decanters the amount of recovered wines must be enormous, to get an break even point for expensive machinery and extra treatment. A big amount of wine decreases the price and the value of the product wine. Lots of recovered wines are gained with big effort and quality losses. Costs for gaining recovered wines should be calculated properly, and related to the real value of the yielded wine and the altered risks before entering with that wine into a low price competition. Blending recycled wines with valuable wines will reduce the quality, prices, images!

The clarity of wine causes big efforts. It can be achieved with time and hygiene. Unfiltered wines are possible, and can supersede filtration and even pumping, if gravity is respected in the construction of the winery. If the distribution range gets bigger, the consumers are only reached via retailers as customers. Product security will get more and more important, and efforts go more in direction safe products & costs, than in consumer demands, taste or healthiness.

Wineries will be more and more divided in traditional wineries with grape until consumer contact. They should keep their processes simple, the wines interesting and different from the discounter wines - and the prices high. The mass production of wine will not be able to keep prices high, but has to assure a constant product quality at low production costs.

Production of wine can be very simple, if it is done in favor of the wine consumers, and if they will be able recognize the advantage of manual crafted wines, they are willing to pay for labour and quality instead of yield, super blank wines or constant boring taste.

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Under the Bench Cellars

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Under the Bench Cellars¹

Michael Marini and Adrienne Kolich were busy deciding whether they should launch Under the Bench Cellars (UTBC), a “virtual” winery in the Niagara region² and were under considerable pressure to make their decision. It was April 2013, and, unless they moved quickly, they would have to shelve plans for another time. In fact, the opportunity might not be as attractive in the future.

Michael, through his connections in the wine industry, was able to negotiate the purchase of grapes from a local grape grower, assuming he could sign a contract by mid-summer. The grower had agreed to supply up to 10 tonnes of Cabernet Franc grapes, 7 tonnes of Riesling grapes, and 5 tonnes of Vidal grapes.

Adrienne and Michael had a common friend who advised he would finance their business if they could convince him that he would get a good return on his investment, and he offered what was a very favourable arrangement, much better than they could expect from an angel investor. His offer was to supply funding up to \$200 000 as needed. He would expect an annual interest payment of 10% of the average annual investment outstanding, and he would let Michael and Adrienne pay off the principal as they wished, without restriction. Michael and Adrienne knew they might never be able to negotiate such an offer again.

It was Friday afternoon, and they were scheduled to meet their potential investor on Monday evening. To get the funding they needed, they would have to present him with a solid marketing plan and, even if they were able to convince him to make the investment, they would still have to decide whether they wished to proceed with the venture. Michael and Adrienne had done a lot of work on their proposed venture, but they still had some issues that they needed to resolve, particularly around market segmentation, branding and labelling, price strategy, and distribution.

Canada’s Wine Industry

Canadians are beginning to love their wines, and this is having a tremendous effect on the domestic wine industry. For the decade between 1995 and 2004, sales grew an average of 11 percent per year. By 2012, sales accounted for \$6.1 billion (over 470 million litres). In volume terms, Canadian adults drank 22 bottles of wine per year, and this volume far exceeded the 13-bottle average for 1995. Compared to other alcoholic beverages, wine accounted for 30 percent of total sales in 2011, up from 23 percent as recently as 2000. Total Canadian wine consumption is expected to grow by an additional 19 percent between 2012 and 2014

Despite Canada’s enormous size, wine production is heavily concentrated in two small regions of the country. The Okanagan Valley of British Columbia has more than 8000

² Maclean’s Magazine (2012). *Virtual wineries make some real corkers*, August 20, p. 263.

acres of grape production³, serving 122 wineries⁴. In the Niagara Peninsula region of Ontario, there are 13,600 acres of grape production, and 84 wineries⁵. The average grape farm in the Niagara Peninsula has just over 30 acres under production, and, with a few notable exceptions, wineries in the region are small-scale operations. Prices for grapes are established every two years, and vary by grape varietal and the sugar content of the grape (measured as °Brix), which, of course, cannot be determined until the grapes are ready for harvest. The sugar content can therefore vary from growing season to growing season. High-quality grapes can reach as high as 20-22 °Brix, depending on variety and the season. Sample prices for 2013 are shown in Exhibit 1.

Exhibit 1. Sample Grape Prices, 2013⁶

Varietal	Soluble Solids (°Brix)	Price per Tonne
Cabernet Franc	21.5	\$1676.00
Riesling	19.0	\$1431.00
Vidal	19.5	\$618.00
Vidal Icewine juice	35.0	\$9.05/ L

Ontario was the first province to introduce appellations systems for grape and wine production. Vintners’ Quality Assurance Ontario, or VQAO, was introduced in 1988, and British Columbia followed two years later with VQA BC. VQA systems guarantee regulated production practices, product quality, and labelling integrity. Approximately 98 percent of Canada’s premium-wine production occurs in southern Ontario and British Columbia, and given the small size of the average winery, competing on the basis of quality makes sense. Only the few very largest wineries could consider competing on the basis of price. In 2013, total VQA Ontario wine sales reached \$346 million as shown in Exhibit 2.

Exhibit 2. Ontario Retail Value of VQA Sales by Channel

Sales Channel	Sales (\$ millions)
LCBO (Liquor Control Board of Ontario)	\$116.5
Winery retail stores	\$115.8
Inter-provincial and export	\$ 60.0
Wine delivered to licensees (restaurants/bars)	\$ 53.7

Because of the volume of its wine sales and the influence it has on wine consumers, the LCBO has a tremendous impact on the competitiveness of Ontario wineries. In recognition of its dominance as a distribution channel and its subsequent influence over the success of many Ontario wineries, the LCBO demands significant margins on the

³ <http://www.winebc.com/discover-bc/okanagan-valley>

⁴ *ibid*

⁵ <http://www.vqaontario.com>

⁶ <http://www.grapegrowersofontario.com>

wine products it sells. For this reason, many smaller wineries focus their distribution on cellar door sales; i.e., sales to winery visitors. Many wineries have the advantage of location: near Niagara Falls or on what has become the “Wine Route” for tourists who want to visit the region’s many wineries. The risks, however, for wineries that follow this strategy are the common ones related to the tourism industry: seasonality, few repeat sales, and the fluctuating strength of the Canadian dollar.

Wine Consumers

Experts attribute the growth in the premium wine market to the aging baby boomers. Baby boomers are entering their prime drinking age and this group of consumers is expected to increase premium-wine consumption for a number of years. Older individuals are key consumers of wine; they tend to have the income and inclination to purchase more, and higher-priced, bottles of wine. Niagara has a large population of people over age 55, the reason it has sometimes been referred to as the Viagra Peninsula. There are about 3.5 million people over age 55 in Ontario, and 145,000 of them live in the Niagara region. Adrienne wanted to target this segment, expecting them to be more responsive to wines that Under the Bench Cellars would produce, and probably they would be more loyal than younger wine consumers.

Michael thought the 19-34-year-old age group should be the primary target market. There were normally 80,000 people in this age group in the Niagara region, and this was supplemented by an additional 20,000 people who attended university or college there during the fall and winter. Across Ontario, there were 2.65 million people in this age segment. Michael wanted to target this segment because, as he said, “I understand this segment much better. They are more adventurous and although they may not want to spend as much for a bottle of wine, they are more willing to experiment and try new things. If we can establish ourselves with this segment, we will have a tremendous advantage when we are able to produce wines from Moscato grapes three years from now.”

Under the Bench Cellars

Both Michael and Adrienne believe they have a tremendous opportunity to succeed in this very competitive industry. They have been studying the industry for several years and, at one time, were planning to open a regular winery in the region. Their first proposal would require an investment of nearly \$1 million, and the risks they deemed to be quite high. They were aware of the popular wine industry saying, that the best way to make a small fortune in the wine industry is to start with a large one. The risks and the financial demands eventually dissuaded them from proceeding with their plan. Then they heard about “virtual” wineries, and this again sparked their interest. Virtual wineries had the advantage of low overhead because they owned almost no physical assets. They took advantage of the excess capacity of existing wineries, renting whatever space and equipment they needed.

As a virtual winery, Under the Bench Cellars planned to purchase all the grapes it needed for wine production in the early years, but it also had available seven acres of land that it could lease from a family friend for 25 years and on which it could plant grape vines. The price to lease the land was established at \$1,000 per acre, subject to review after 10 years. The land is near Niagara-on-the-Lake close to an area known as the St. David's bench area. In fact, the property is just below this area, suggesting to Michael and Adrienne the name for their winery: Under the Bench Cellars.

Adrienne found a government study that reported the average cost for planting an acre of vineyard at \$16,874.00, taking into account labour and wage rates in Canada. Working with this study, she was able to lower the estimated cost of planting to \$12,857.57 per acre for UTBC. This would require some contribution of labour by herself and Michael, and possibly by a few family members and friends. She also had a contractor friend who she thought might help with the tile drainage, possibly lowering the cost a bit more.

Grapes would be available by the third growing season, and in increasing quantities after that until full production would be reached after year five. An important consideration was that there was a solid building that had been recently constructed on the property. Unfortunately, to prepare it for retail sales, UTBC would need to make considerable leasehold improvements: a new façade, inside renovations to make tasting and display areas, a parking area and picnic tables, and some additional landscaping. Adrienne estimated the changes would cost somewhere over \$50,000, possibly as high as \$60,000.

Michael and Adrienne would share management responsibilities for the winery, Michael as CEO and Adrienne as CFO. Michael has a university science and business background and has five years of customer service experience, and four years of labour experience. Michael is a wine enthusiast and has spent many years with his father, Dr. Zopito Marini, making wine for the family. Adrienne has a university business background and has worked with a number of companies doing bookkeeping and accounting. She is currently a third-level Certified General Accountant (CGA) and has completed all of the required courses to earn her full CGA designation. Michael and Adrienne plan to be equal shareholders in the company.

Michael's father, Dr. Zopito Marini, has a Ph.D. in developmental psychology and is a WSET (Wine, Spirits, Education Trust) Sommelier. He will serve as the company's sommelier and educational consultant. Adrienne's cousin, a certified Chef de Cuisines and a culinary arts instructor owns two upscale restaurants in the Niagara region, one in Niagara Falls and one in Niagara-on-the-Lake. He has promised to introduce UTBC wines in his restaurants, and will eventually serve as a wine and food consultant for the winery. A family friend and colleague of Dr. Marini is an expert in applied climatology and meteorology, viticulture, and vineyard site selection. He has done extensive research for the Ontario VQA board and is very knowledgeable about the Niagara wine industry. He has indicated that the company's planned growing property near the St. David's bench is very suitable for growing the grape varieties that UTBC is planning to grow. Another family friend has considerable experience replicating plants and grafting vines. He also has expertise in plant diseases that can affect fruit and grape vines in the Niagara region.

There were many people who wanted to see UTBC succeed, and their skills and expertise provided the winery with important production, marketing, and knowledge resources.

Under the Bench Cellars does not plan to hire any staff as it begins operations. The one critical person needed by the winery is an experienced wine maker, and Michael and Adrienne plan to hire one on a part-time basis. Through Dr. Marini, they have identified several who they believe are qualified to execute the company's trade secret recipes and vision for each wine that they will produce. Winemakers can be contracted for a reasonable cost on a part-time basis. The going rate for the highest quality winemakers is approximately \$30,000 per year.

Product

Under the Bench Cellars intends to offer high quality wines from Vinifera grape varieties, including Cabernet Franc, Riesling, and Vidal (for icewine production). These are all popular grapes in the Niagara region. Since 100 percent of the grapes used in its winemaking will be grown in Ontario, it plans to produce only VQA wines. Exhibit 3 shows the company's estimated sales mix, by volume, based on its planned production. Riesling and Cabernet Franc will be produced in the traditional 750mL bottles, and the Vidal icewine will be produced in the standard 375mL ice-wine bottle.

Exhibit 3. Estimated Sales Mix (by volume)

Estimated Sales Mix (by volume)*	
Cabernet Franc	53.20 percent – 64.21 percent
Riesling	35.14 percent – 28.75 percent
Vidal	11.66 percent – 7.04 percent
*estimate on left based on competitive intelligence; estimate on right based on UTBC planned production volumes	

Eventually, UTBC plans to introduce wine produced from the Moscato grape, one not yet grown in Canada. Moscato Canelli is one of the world's fastest growing grape varieties. It is originally from Piedmont, Italy and UTBC believes it should grow well in the Niagara macroclimate⁷. World-wide sales for wines from this grape have doubled in the past year, exceeding 10 million nine-litre cases (120 million bottles), moving it ahead of such well-established varieties as Shiraz and Riesling. The wine has turned into a hit in hip hop circles, with rappers Kanye West and Drake both singing the praises of the wine. In fact, Kanye West has recently been dubbed the "Maestro of Moscato." This trend has made Moscato popular with the 19-34 age group, but there has also been a sales increase among the 55+ age group. UTBC attributes the large increase in sales to the fact that some sommeliers are proposing that North American wine tastes are moving toward the sweeter wines produced from this grape and away from the more traditional dry wines. UTBC plans to make this its signature grape.

⁷ <http://www.wine-searcher.com/technical-wine-terms-m-n.lml>

Price

A check of wine prices in Ontario revealed that VQA wines averaged, at retail, \$15.50 per bottle, non-VQA averaged \$8.50 per bottle, and icewines averaged \$45.00 per bottle. However, there was considerable variability. Riesling VQA wines sold for as little as \$14.00 and could cost as much as \$23.00 per bottle. Cabernet Franc ranged from \$15.00 to \$28.00 per bottle. Vidal icewines sold for \$40.00 to \$55.00 per 375mL bottle. Given the segment he wished to target, Michael preferred prices lower than the average; Adrienne, thinking about how price might affect the quality image of the wine among older consumers, favoured prices higher than the average.

Promotion

Social media sites have become effective marketing tools for promotion of new businesses as most are free. Under the Bench Cellars plans to begin using social media as soon as the company is started. Adrienne plans to start with a Facebook page and a Twitter page, explaining the company vision and location. As the production process proceeds, UTBC will use these media to explain where the winery is in the process of winemaking. These sites will also promote product availability, including availability release dates and locations where the wines can be purchased.

Eventually, on a monthly basis, Dr. Zopito Marini, as sommelier, will produce a short video blog for UTBC. Each month he will highlight one of the newly released wines or some aspect of the growing process. He will discuss these issues and educate customers so they develop a greater understanding of the wine industry and the wine-making process. Plans are for the company's culinary consultant to discuss pairings with food and show how tasting notes are made. These blogs will be released on the UTBC website and on other social media forums the company will use for promotion. Adrienne believes this will be a great marketing tool as both people are well-established educators in the region.

As part of the company's education program, UTBC plans to offer "vineyard to glass" tours. This will be the cornerstone of the company's education program, where customers would visit the winery at four different times during the growing season. Each visit would last one hour and would coincide with a different phase of production: the Budding phase, the Pruning phase, during Harvest, and, finally, during actual Winemaking. This would give customers insight into the everyday operations, how to prune the vines and the characteristics of the grapes, and what makes them into good wine. During the tours, the company's sommelier, chef, and grape grower will be on hand to educate customers in the process of winemaking. To increase consumer engagement, Michael plans to name a few vines after each of the customers in the program every year. This will hopefully increase customers' attachment to the winery as well as enhance their education. Following the four visits, customers will receive a 12-bottle case of red (Cabernet Franc) or white (Riesling) wine, depending on their choice. Michael is planning to offer the program at a price of \$250 per person. He is hoping to attract between six and 10 customers in the first year, with the program becoming increasingly popular in succeeding years.

An important local venue for promoting Niagara wines is the Niagara Grape and Wine Festival that takes place each September at Montebello Park in St. Catharines. It is a showcase for wineries and new wines in the region and gives a grand opportunity for a new winery to gain recognition and customers. The festival runs over two weekends; tents are set up on-site where people can buy tokens to sample some of the wines from the region. Companies gain a spot in the tents by making a donation to the festival, and how much product they can bring to the festival depends on the amount they donate. UTBC plans to donate \$2000 to the festival, and this will allow the company to have two wines in booth for people to sample. This is an excellent marketing and promotion opportunity that can lead to other festivals in the region, such as the New Vintage Festival and the January Icewine Festival.

If UTBC decides to sell through the LCBO, it will be able to promote its wines through the LCBO Go Local website, www.lcbogolocal.com. This site posts various Twitter and social media posts about local wineries, including pictures, videos, and testimonials, all aimed at getting customers at the LCBO to buy more VQA and local wines.

Both Michael and Adrienne are aware of the role that their wine label can fill when promoting their wine, particularly if they use the LCBO in their distribution strategy. Research has continued to demonstrate the importance of an appealing and distinctive wine label to consumer choice in a retail setting. Fortunately, UTBC has had some professional help from Adrienne's sister, a professional graphics designer. She has presented two ideas to them, but they have so far been unable to decide between them, or indeed, if they would like either or both of them. Also, Michael and Adrienne continued to debate colours for the copy and the graphics on the labels. These designs are shown in Exhibit 4.

Distribution

Under the Bench Cellars plans to sell through a number of distribution channels to meet consumer needs. The most important question to be resolved is whether to include the LCBO as a distribution channel. Michael was confident they would get an LCBO listing if they desired one because UTBC would be closely following all of the LCBO requirements throughout its production process. The LCBO is the largest retailer of alcohol in Ontario. According to Michael, "It is essential we sell through the LCBO because it is one of the largest purchasers of alcoholic beverages in the world, and it can give us the market exposure and credibility that we need to establish our brand." Adrienne, on the other hand, held an opposing view: "We may get exposure, but the cost is far too high. The margins we must sacrifice could be the difference between making a profit, or operating at a loss. Not only that, once customers find they can buy our product at the LCBO, they will simply return there if they wish to buy more. We will be spending a lot of effort and money to build brand awareness and loyalty, and then we lose much of our margin to the LCBO." An important issue for wineries that sold through the LCBO was the need to guarantee both production and sales. They had to be able to supply the LCBO in reasonable volume (somewhat lower for new wineries), but also must be able to

sell sufficient volume to remain listed as one of the LCBO's products. Michael was certain they could meet the LCBO requirements, but the issue of whether to sell through the LCBO remained unresolved.

Exhibit 4. Sample Wine Labels (© 2013, Under the Bench Cellars)



Other distribution channels included sales to licensees (restaurants and bars), cellar door sales, “vineyard to glass” sales, and online sales. Adrienne planned to sell wines through licensed establishments, and planned to do the selling to these establishments herself. The customary discount to such establishments was 15%. UTBC had a small advantage here as it was assured two restaurants that would feature its wines as soon as they are released. At the cellar door, UTBC would get to keep the highest margins. There is a requirement that, if wines were sold through the LCBO, prices at the cellar door could not be lower than the prices that the LCBO charged its customers. Vineyard to glass sales would be similar to sales through the cellar door; i.e., full price with the entire margin remaining with the winery. Adrienne plans to charge a premium, though, to cover the cost of the valued added through the four winery tours associated with this program. However, in

terms of overall sales, the vineyard to glass program is expected to account for considerably less than 1% of sales.

With respect to online sales, Adrienne expects to sell through the company's own website, but also through a number of websites that specialize in selling wines throughout Canada and the United States. For example, Toronto-based Winery to Home Inc. (www.winerytohome.com) sells wines over the Internet to consumers in Nova Scotia, Ontario, Manitoba, and British Columbia. When sales come through the UTBC website, Adrienne expects the margins will likely be similar to those the company would get if the sales had been made to licensees as there would be transportation costs that would need to be absorbed when customers ordered six or more bottles. She was uncertain what margins she would be able to realize when sales were made through third-party websites as she was not certain what margin these sellers would seek. In any event, Adrienne believes that online sales will account for a small percentage of overall sales.

Exhibit 5 shows the impact on the selling price that the winery would realize based on the channel through which the wine is sold. For illustrative purposes, a basic price of \$15.00 from the winery was chosen.

Exhibit 5. Examples of the Selling Price that UTBC Would Realize Based on the Channel through Which Its Wine Is Sold

Sales through the LCBO	
Price paid by buyer	\$17.15
Bottle deposit	0.20
Retail price at LCBO	\$16.95
HST @13%	1.95
Basic price from winery	\$15.00
Environmental fee (0.0893 per bottle)	0.0893
Bottle levy (0.29 per litre)	0.2175
Wine levy (\$1.62 per litre)	1.2150
LCBO markup	5.3343
Revenue to winery	\$ 8.1439

Sales through Licensees	
Price paid by licensee	\$16.37
Bottle deposit	0.20
HST @13% (on \$14.31)	1.86
Net licensee price	\$14.31
Discount to licensee 10% on \$15.00	1.50
Markup on licensee sales 6% on \$13.50	.81
Basic price from winery	\$15.00
LCBO admin. fee 6.1%	0.84748
Environmental fee (0.0893 per bottle)	0.0893
Bottle levy (0.29 per litre)	0.2175
Revenue to winery	\$13.8457

Exhibit 5. Examples of the Selling Price that UTBC Would Realize Based on the Channel through Which Its Wine Is Sold (continued)

Sales through the Cellar Door	
Price paid customer	\$17.15
Bottle deposit	0.20
HST @13% (on \$14.31)	1.95
Basic price from winery	\$15.00
Basic tax 6.1%	0.84748
Environmental fee (0.0893 per bottle)	0.0893
Bottle levy (0.29 per litre)	0.2175
Revenue to winery	\$13.8457

Wine Production

Wineries in the Niagara region grow their own grapes, or purchase grapes on contract from grape growers, or they do both. Under the Bench Cellars, as a virtual winery, plans to purchase all of its grapes for the first two years; but with its own property for growing grapes, it plans to plant vines to supply its future demand beginning with a smaller quantity in year three and increasing to meet its entire demand in later years. In particular, it hoped to plant Moscato grape vines immediately, and to produce some wine from this grape in its third year. Wine production varies depending on grape varietal as shown in Exhibit 6.

Exhibit 6. Wine Production per Grape Varietal

Grape Varietal	Tonnage	Yield per tonne (L)	Production Volume (litres per tonne)*!	Cases per tonne
Cabernet Franc	10	650	6500	722
Riesling	7	600	4200	467
Vidal	5	150 (icewine)	750	167
*Volume represents original liquid volume, but wineries can expect a loss of 4% to 6% due to evaporation, transfer loss, spillage, etc. !UTBC will withhold 5% of total production as a reserve: for tastings, gifts, cellaring, etc.				

In addition to the cost of grapes and the winemaker, Adrienne estimated additional costs as shown in Exhibit 7.

Exhibit 7. Estimated Costs for UTBC

Materials and processing costs, including labour	\$15,200.00
Computer and software	1,070.00
Registration and licensing, including incorporation	2,300.00
Website design	1,500.00 + \$300.00 annually for maintenance
Telephone and Internet expenses	900.00 (annually)
Promotion (budgeted)	50,000.00 (includes the Niagara Grape and Wine Festival)
Leasehold improvements to property and building (one time)	50,000.00 total (highest estimate)
Management fees for Michael and Adrienne (annual)	25,000.00 each
Land lease (annual)	1,000.00 per acre
Yeast	0.03 per bottle
Nutrients	0.01 per bottle
Tannins	0.08 per bottle (for Cabernet Franc only)
Sulphites	0.07 per bottle
Corks	0.12 each
Bottles	0.18 each
Labels	0.32 each
12-bottle cartons	0.36 each

Plans for the Weekend

Over their Friday evening dinner, Michael and Adrienne made their weekend plans. They realized that they had a number of decisions to make and they needed to present a realistic and final marketing plan to their potential investor. Gaining his support was important. Aside from the financial backing, his support would raise their confidence that they should proceed. From their immediate family and their own resources, they estimated that they could easily invest the first \$20,000, but they also knew they should be able to provide their investor with a realistic estimate of their additional needs, and their plans to pay back the investment. Over a glass of wine, Michael turned to Adrienne and said, "Let's relax and enjoy the evening. We should plan to get an early start in the morning as we have a lot to discuss and a lot of decisions to make."

Adrienne smiled as they clinked their glasses. "Maybe someday we'll own that "destination" winery that we've been dreaming of, complete with hotel. Who knows?"

The Impact of Knowledge Acquisition on the Earliness of Innovation Adoption: A Case Study of German Grape Producers

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◦Purpose: The purpose of this study is to explore how grape producers acquire knowledge of innovations in viticulture by using various information channels. Further, the transformation and application of knowledge into an earlier adoption of innovations are investigated.

◦Design/methodology/approach: A survey addressing German grape producers was conducted to collect data on knowledge acquisition and the relative earliness of innovation adoption. Following the theoretical concept of the individual absorptive capacity (Zahra and George, 2002), a structural equation model was assembled to determine the relative earliness of adoption.

◦Findings: The investigated information channels contribute to different extents to the acquisition of knowledge on innovations in viticulture. In general, it was found that social interaction has a large impact on individual knowledge. Moreover, the earliness in adopting innovations can be predicted by knowledge and the interaction with peers.

◦Practical implications: The study bears several practical implications. Proactive interaction within the industry can increase knowledge of specific innovations. In addition time advances can be gained by interacting in the industry. In general, viticulturists who interact more in the industry learn earlier about innovations and can adopt novelties before competitors do. This can lead to first-mover advantages through comparative cost-advantages in production.

Keywords: Innovation, Knowledge, Adoption, Information Channels, Absorptive Capacity

1. INTRODUCTION

The German wine industry experiences an ongoing structural change. Over the last decade the number of viticulturists declined by 30 % (BMELV, 2012) despite an unchanged acreage under vine. In course of this development, a small number of viticulturists accumulate land while a large number of part-time and small viticulturists are diminishing. Related to this structural evolution is a variation in information behavior and intensity of interaction within the industry. This leads to an uneven distribution of knowledge about viticultural innovation and to differing adoption rates within the population of viticulturists (Giuliani, 2007). In this study we argue that the process of knowledge acquisition and its transformation also affects the relative earliness of innovation adoption compared to competitors. Knowledge is therefore also crucial for first-mover advantages in viticulture. Earlier adoption of innovations can imply comparative cost advantages in production. Thus it can be argued that early adopters will produce more profitably and have the capability to outperform their competitors over the long run (Sunding and Zilberman, 2001, Cochrane, 1958).

2. THEORETICAL BACKGROUND AND HYPOTHESES

2.1 Past Research

The interrelation between learning, knowledge and the adoption of innovations was content of various publications within the wine industry (Giuliani, 2005, Giuliani, 2007, Bell and Giuliani, 2007, Giuliani, 2011, Morrison and Rabbott, 2009). These studies used social network theory and related statistic methodology to evaluate and explain the distribution of knowledge among populations of viticulturists. The aspect of time advantages that can be gained by interaction and knowledge acquisition was not examined by these studies.

Past research in the wine industry also stressed the sourcing of information and its application. McDermott showed that the number of ties that a company has with other companies and organizations in the industry, is positively related to product upgrading (McDermott et al., 2009). In addition to this result Vargas empirically showed that the importance of different sources of information varies (Vargas, 2000). This finding is supported by Lorentzen who argued that also the intensity by which an information source is used should be taken into account (Lorentzen, 2011).

2.2 Knowledge and Innovation

The interrelation between knowledge and the time at which an innovation is adopted by a company can be explained by two theoretical concepts: 1. Rogers' model of the diffusion of innovation that explains the spreading of information on novelties within social systems. 2. Cohen and Levinthal's concept of the individual absorptive capacity which emphasizes on the assimilation and application of knowledge (Rogers, 2003, Cohen and Levinthal, 1990).

Diffusion research suggests that the adoption of Innovations can be explained by communication processes of various individuals within a social system (Rogers, 2003). Rogers' model can be seen as interrelated to network theory. With increasing interconnectedness, i.e. number of ties to other individuals in the industry (McDermott et al., 2009) and the intensity by which these ties are used to generate new knowledge (Lorentzen, 2011) the probability that a

unit of adoption learns about an Innovation and implements it earlier in its company increases. Rogers' diffusion model is therefore capable to explain the earliness of adoption. However, the model falls short in explaining the cognitive processes that underlay the generation and application of knowledge (Albrecht, 1973).

The theoretical concept of the individual absorptive capacity can extend Rogers diffusion model. It was introduced by Cohen and Levinthal (Cohen and Levinthal, 1990) and has been followed by numerous case studies in different fields of research. The body of empirical literature on absorptive capacity was later reviewed by Zahra and George. The authors found that one should distinguish between the so called potential and realized absorptive capacity. The former stresses on the use of various knowledge sources, whereas the latter focuses on transformation of knowledge into innovative activities (Zahra and George, 2002).

2.3 Hypotheses

Based on Zahra and George's model it can be assumed that viticulturists assimilate new knowledge by interacting in the industry. In general, a viticulturist who is better interconnected in the industry, and uses various information sources more frequently, will have more knowledge on viticultural innovations. This constitutes the so called potential absorptive capacity (Zahra and George, 2002).

H₁: The frequency by which a viticulturist attends industry events affects the knowledge he/she has of innovations in viticulture positively.

H₂: The frequency with which a viticulturist uses certain media to get informed affects the knowledge he/she has of innovations in viticulture positively.

H₃: The frequency with which a viticulturist interacts with his colleagues affects the knowledge he has of innovations in viticulture positively.

The transformation of knowledge into innovative activities has been described by Zahra and George as realized absorptive capacity (Zahra and George, 2002). Accordingly the following hypothesis can be postulated:

H₄: The more knowledge a viticulturist has on innovations the earlier he/she adopts an innovation.

H₅: The more a viticulturist interacts with his colleagues (peers) the earlier he/she adopts an innovation.

A structural model of the above mentioned hypotheses can be found in figure 1.

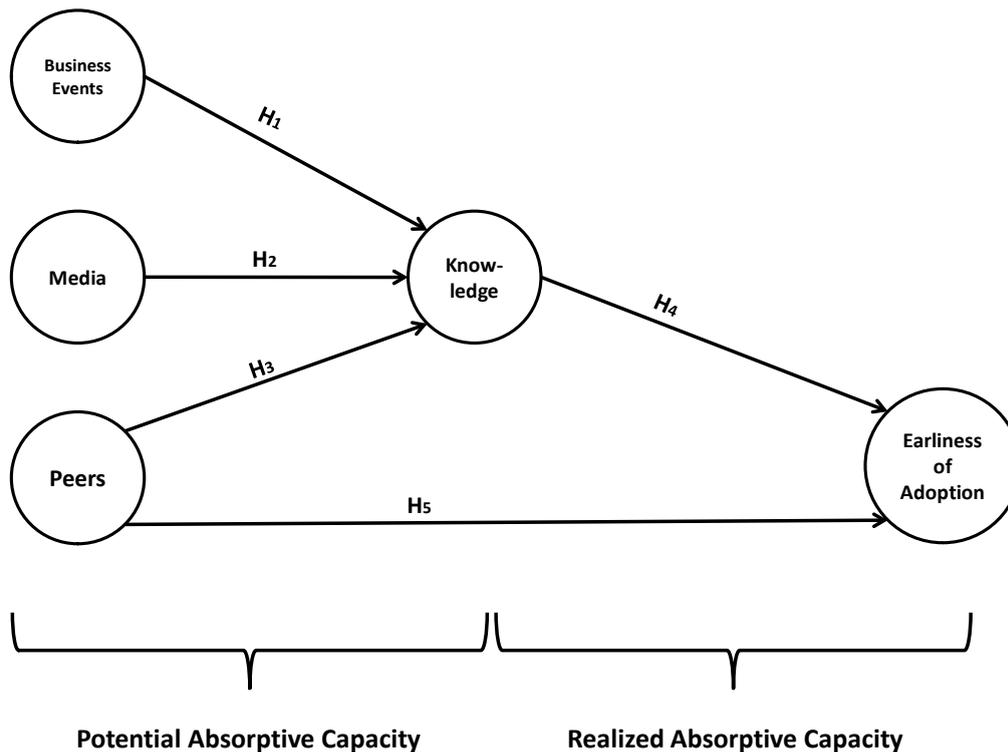


Figure 1: Structural Model

3. METHODOLOGY

3.1 Survey

This investigation is based on a case study of viticulturists in Germany’s second largest wine growing region – Palatinate. The study focuses on a mail survey addressing solely grape producers. The distributed questionnaire included varied indicators measuring how frequently different information channels (i.e. business events, media, and peers) are utilized to source information on innovations in grape production. In addition, the viticulturists self-assessed when they usually adopt innovations in comparison to their colleagues. In total 123 responses could be utilized for the statistic assessment.

3.2 Structural Equation Modeling

The statistic assessment of the above mentioned hypothesis was conducted by assembling a structural equation model (SEM). A partial least squares (PLS) approach was applied by using the software SmartPLS (Ringle et al., 2005). Within the model formative constructs were used to constitute the impact of business events and media. A reflective model measures the knowledge of the viticulturists. Since the nature of the study is in an exploratory stage, the model also relies on single item constructs (Hair et al., 2013). The hypotheses underlying the SEM were tested for their significance by bootstrapping. T values indicate the significance level of the paths in the SEM (Hair et al., 2013).

4. RESULTS

The structural model presented in this study is based on the above mentioned hypotheses and contains two parts describing the potential absorptive capacity and the realized absorptive capacity. The first part of the model constitutes how knowledge on innovation can be predicted by different sources of information. The measurement model ‘Knowledge’ is affected by three information sources ‘Business Events’ (H_1), ‘Media’ (H_2) and ‘Peers’ (H_3). The path coefficients displayed in table 1 confirm the underlying hypothesis. The attendance of business events has the strongest influence on knowledge of innovations. The path coefficient has a regression weight of 0,2861*** and is highly significant. The effects of media (0,1853**) and peers (0,1729**) are almost similar. Both path coefficients are also significant. These three exogenous variables can explain almost 30 % of the variance of the measurement model ‘Knowledge’ ($R^2=0,294$).

The second part of the model constitutes how knowledge is transformed into innovative activities. In this study the endogenous variable ‘Earliness of Innovation Adoption’ is predicted by two exogenous variables -‘Knowledge’ (H_4) and ‘Peers’ (H_5). Both paths display significant path coefficients. The effect of ‘Knowledge’ (0,5134***) on the ‘Earliness of Adoption’ is stronger than the impact of ‘Peers’ (0,2243***). More than 40 % of the variance ($R^2= 0,412$) in ‘Earliness of Adoption’ can be predicted by the two exogenous measurement models.

Hypothesis	Path Coefficient	T Statistics
H_1 BusinessEvents -> Knowledge	0,2861***	3,1199
H_2 Media -> Knowledge	0,1853**	2,3994
H_3 Peers -> Knowledge	0,1729**	2,0211
H_4 Knowledge -> Earliness of Adoption	0,5134***	7,6326
H_5 Peers -> Earliness of Adoption	0,2243***	2,9643
Coefficient of Determination		R^2
Knowledge		0,294
Earliness of Adoption		0,412

Table 1: Hypotheses and Path Coefficients

5. DISCUSSION AND PRACTICAL IMPLICATIONS

The results of this study confirm that proactive networking within the industry is a key determinant to adopt innovations earlier than the majority of the industry. The attendance of business events appears to be the most powerful source to acquire knowledge of innovations. Beyond that the interaction with other viticulturists not only contributes to the dissemination of innovative knowledge, it also affects the time at which an innovation is adopted. There are different conclusions that can be drawn from this statistical relationship. Firstly, the interaction with peers might constantly expose viticulturists to competitive pressure (peer pressure). If a colleague adopts an innovation successfully, others will see a need to adopt the innovation as

well to prevent themselves to not lag behind. Secondly, peers might also be important supporters in the implementation stage of innovations. For instance, early adopters can learn from the experience of innovators who implemented the innovation first.

This study is limited on knowledge acquisition and the earliness of innovation adoption. The effect of earlier adoption on the cost structure of grape producers was not investigated. Additional empirical research is necessary to explain how earlier adoption can lead to comparative cost advantages in viticulture and can therefore lead to competitive advantages. Theoretical explanations can be found in Cochrane's agricultural treadmill theory (Cochrane, 1958, Sunding and Zilberman, 2001, Koester, 2010).

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APPENDIX

Measurement Models/Indicators	Formative Models	Reflective Models	Single Item Models	T-Statistics
	Outer Weights	Outer Loadings		
Media				
Industry related magazines	0,8843***	-	-	10,69
Newsletters/circular letters	0,1997 n.s.	-	-	1,5193
Internet	0,2262 n.s.	-	-	1,4277
Business events				
Trade fairs	0,4027**	-	-	2,4808
Meetings at cooperative	0,259*	-	-	1,6593
Industry events	0,5792***	-	-	3,4142
Knowledge				
Advantages and disadvantages of innovations	-	0,8674***		25,7838
Knowledge of new viticultural equipment	-	0,8925***		52,9973
Peers	-	-	1	0
Earliness of Adoption	-	-	1	0

***p<0,01, **p<0,05, *p<0,1

**Can wine tourism remedy poor wine marketing? The case of Beaujolais
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Abstract

Purpose: The aim of this article is to analyze the reasons why wine tourism in Beaujolais is weak and to propose some way in which it could be better exploited to benefit the region as a whole, particularly in the light of the negative image of the 'Beaujolais Nouveau'. This is done by way of a triangulated market analysis of the offer of wine tourism in Beaujolais.

Design/methodology/approach: A twofold qualitative approach was adopted, in order to explore a territory which has not previously been researched. The first stage involved participant observation by two researchers independently; the second used students to examine the region in the role of involved wine tourists, and debriefed them on their findings.

Findings: The Beaujolais wine region has a number of the strengths and opportunities one generally associates with successful wine tourism. It also has weaknesses. Crucially, there is a problem associated with wine reputation (and particularly Beaujolais nouveau) which may currently be a major, perhaps insurmountable, impediment to a successful wine tourism offering.

Practical implications: operators and territorial brand managers need to address issues of wine reputation and collective responsibility for wine quality if wine tourism is to succeed.

Key words: Wine tourism; territorial brand; Beaujolais

1. INTRODUCTION

France is the world's top tourist destination, attracting 83 million foreign tourists and, along with Italy, still the top wine-producing country with 41.4 Mhl of wine produced in 2012. There is no doubt that French wine, and French gastronomy have a strong and solid reputation around the world. France has been increasingly facing a severe competition from the New World countries for their wines, but also for their wine tourism offers (Cholette, 2004). Despite being a strong international destination and having a solid reputation for its wines, France seems to have an under-developed wine tourism sector. The Beaujolais region is typical of this French paradox (Frochot, 2000). As will be seen, it has many assets including its location, accessibility, natural environment and culinary heritage. Yet despite its major assets and the current dynamism of certain wine-growers and wine merchants (e.g. Georges Duboeuf and its wine museum) wine tourism remains under-developed. The aim of this article is to analyze the reasons why wine tourism in Beaujolais is so weak and propose some ways in which it could be better exploited to benefit the region as a whole (Ponce, 2009), particularly in the light of the negative image of 'Beaujolais nouveau'. In particular, the aim is to:

- Conduct a market analysis of the offer of wine tourism in Beaujolais;
- Determine some best practices and recommendations for future development.
- Examine the relationship of wine tourism to the reputation of the territorial brand of beaujolais wine.

The research was conducted by intensive participant observation by the researchers, along with an evaluation of the responses of a group of MSc students to the region. This is the first stage in a more detailed project to examine the impediments to and potential for wine tourism in the area, and is thus a work in progress. The academic value of this paper is twofold. First, most wine tourism research has been *post hoc*, examining successful regions – rather than considering the topic in the light of a region where it has not been successful. This research begins to examine a region that has yet to develop a wine tourism offering. Second, it will be proposed that one reason for the lack of success relates to the negative image of the wines; this study therefore examines the tourism component directly in the context of the reputation of the wine produced in that region, and considers how the two interact.

2. CONTEXT

2.1 Beaujolais region and wines

The region of Beaujolais was first cultivated by the Romans who planted the area up the Saône Valley (Jacquemont & Meraud, 1986). From the 7th Century until the Middle Ages, the vineyards belonged to Benedictine monks. In the 10th Century, the region was named after to the village 'Beaujeu' and was ruled by the Lords of Beaujeu until the 15th century when it was then ceded to the Duchy of Burgundy (Prescott, 2010). At first, the wines of Beaujolais were sold primarily to local markets, such as the neighbouring towns (Mâcon and Lyon). It was through the expansion of the railway system in the 19th century that they started to become famous in Paris and beyond (Jacquemont & Meraud, 1986).

Beaujolais was historically linked to Burgundy, but is now administratively linked to Lyon (less than 50 kms south), the second city of France. It is a large wine producing region covering 18,000 hectares of vines planted in a 55 kilometre stretch of land that is between 11 and 15 kilometres wide. It represents only 2.2% of the French vineyards in terms of hectolitres produced. On average one million hectolitres are produced each year, amounting to around 130 million bottles (Interbeaujolais, 2014). Over 98% is red wine made from the grape-variety,

gamay (Prescott, 2010). The Beaujolais wine industry is dominated by 30 négociants who produce nearly 90% of the wine sold outside the region. There are more than 4000 vineyard owners in Beaujolais and the fractional amount that is not sold to négociants is bottled either by the 20 village co-operatives or (a growing amount) is estate bottled. Twelve different appellations and 10 *crus* are produced in this region. There are three classifications of Beaujolais wines:

- Beaujolais AOC: this is the biggest appellation comprising all 96 winemaking villages (about half of all Beaujolais wine is sold under this basic AOC designation);
- Beaujolais Villages AOC: An area of 38 official villages, perceived to produce better wine; 30 villages are allowed to include their name on the label.
- Beaujolais Crus: The ten *crus* of Beaujolais (including famous names such as Moulin-à-Vent, Fleurie and Morgon) are considered to produce the best wines. They are all located in the north and producing only red wine,

Most Beaujolais wines are produced by the winemaking technique of semi-carbonic maceration, which gives fruity wines, for short-term drinking, though wines from the best *crus* may improve over 7-12 years.

2.2 The special case of Beaujolais Nouveau

In the 1980s, Beaujolais wines became very famous through 'Beaujolais Nouveau'. The creative marketing techniques of the négociant Georges Duboeuf ensured that this craze became worldwide, especially in markets like the UK, Japan and the US. Beaujolais Nouveau is released barely two months after the harvest, with very little ageing, and designed to be consumed young. As a result of its success, most wine-growers gave up the production of the more traditional wines of that region and in 2002 45.5 million bottles were sold (Prescott, 2010). It has not declined but in 2012 one third of Beaujolais production was still the nouveau version, amounting to 31.3 million bottles (Haddad, 2013).

Unfortunately, in the 1990s, with worldwide wine production outnumbering wine demand, this craze faded and many wine consumers came to associate Beaujolais wines with slightly sweet-fruited, simple, light-bodied wines lacking intensity. Sales declined dramatically, and in 2001 the equivalent of 12 million bottles of the wine were destroyed due to lack of markets (Ring, 2013). This response is not universal – the wine remains very trendy in Japan (Godart, 2013; Haddad, 2013), but in the occidental world its prestige has waned rapidly – see for example, the comments of the eminent French critic François Mauss (Ring, 2013). Some wine-growers responded by producing more complex wines, often aged longer in oak barrels prior to release – although the region as a whole has responded not by changing the wine style but by investing in more marketing (Godart, 2012). There has also been, in recent years, an increase in the number of terroir-driven estate-bottled wines made from single vineyards or in one of the *Crus*. Beaujolais nouveau explains why this region is famous worldwide and is, at the same time, one of the reasons why wines from this region have the reputation of being cheap, and of mediocre quality. This reputation may explain why wine tourists prefer famous wine regions such as the Cote d'Or or Bordeaux, and are not naturally drawn to the Beaujolais region.

2.3 Successful wine tourism

Wine tourism has traditionally been defined as 'visiting vineyards, wineries, festivals and wine demonstrations to taste grapes/wine and/or to experience the attributes of a wine region being the main reasons for the visit' (Hall, 1996, cited in Hall et al., 2000). Although this previous definition has been used in many studies on wine tourism, Carlsen (2004) indicates that a

unique concept has not yet emerged (Getz & Brown, 2006). There are other perspectives to take into consideration such as that of the wine producers and that of the authorities of the tourist definitions. Thus, wine tourism can also be defined as ‘simultaneously a form of consumer behaviour, a strategy through which the destination develop attractions and images related to wine, and a commercial opportunity for the wineries’ (Getz & Brown, 2006, p.147). There are several activities that wine tourists can enjoy including tasting and buying, learning about vineyards and production and links to natural heritage and experiential (food, sport and recreation) environment (Carlsen, 2004).

The critical success factors for wine tourism have been considered in previous studies, most notably (though not exclusively) Getz and Brown (2006), who suggest that the ‘core product’ is the most significant issue. However, the ‘core product’ comprises a diverse range of factors, including winery staff, accommodation and food, and a range of things to see and do. Additionally their study suggests that destination appeal (including accessibility), the core cultural product, variety and tourism orientation are significant, a conclusion reinforced by Cohen and Ben-Nun (2009). Other studies have also proposed, at least by implication, more specific critical success factors, such as a clear service orientation - including the welcome and staff empathy (O'Neill & Palmer, 2004), or a sense of authenticity (Roberts & Sparks, 2006). Wine quality and reputation, which is particularly relevant to this study, whilst never the most important factor, remain vital (Getz and Brown, 2006). However, all these studies have focused on New World wine-producing countries, and as differences with wine tourism provision and consumption in Europe have been suggested (Charters, 2010) it is hard to say how far these research conclusions would apply in France.

We can also note that wine regions, like wine tourism destinations, operate as a territorial brand (Charters and Spielmann, forthcoming). This makes the process of managing them complex, as it relies not just on one individual enterprise as brand manager, but a collective approach of a number of enterprises. A shared vision, a sense of community and willingness to compromise are thus essential (Charters and Spielmann, forthcoming).

3. PROCESS

This study is a preliminary, exploratory piece of research designed as the first phase in a larger project examining wine tourism in the Beaujolais region. Given the two theoretical components noted above (that it is the examination of an ‘undeveloped’ wine tourism region, and that it should investigate the relationship between a weak territorial wine brand and destination image) the aim is to set the context for future research.

Two exploratory processes have therefore been used. The first is based on participant observation by the researchers independently over a period of more than one year, visiting the region, going to wineries and talking with local wine producers. Field notes of these visits have been kept and analysed by the researchers individually and then jointly, in an attempt to obtain a degree of triangulation of data and analysis. This initial analysis focused on the strengths, weaknesses and opportunities of, and threats to, the region

The second stage in the process involved exposing a group of masters students to the region and its wines, including presentations and wine tastings. The 29 students, comprising five different nationalities, were then panelled about their responses to the region and their own views of its current position as a wine tourism destination. This data was used to support the initial findings of the researchers based on the participant observation. Whilst unusual, the use of third parties as a means of gaining external consumer responses to wine tourism and then

debriefing them is not unknown (Fountain & Charters, 2006).

The result of these two phases was the construction of a structured analysis of wine tourism provision in Beaujolais.

4. ANALYSIS OF WINE TOURISM IN BEAUJOLAIS

4.1 Assets

A number of positive factors for wine tourism in Beaujolais were noted. The location is ideal (close to both Burgundy and Lyon, with a major international airport nearby, as well as a motorway linking Paris to the south of France and used by 70 million motorists each year). Most independent producers have tasting facilities. There are some existing attractions, such as the 'hameau du vin' (wine hamlet) of Georges Duboeuf, as well as other, non-wine attractions for all the family. The region has heritage, with castles and a strong food culture, including *bistrots bourguignons*, underlining the link between local food produce and Beaujolais wines, as well as a number of Michelin-starred restaurants.

It is also true that while the best-known product of the region (Beaujolais nouveau) has a low overall image, nevertheless it is popular in some markets (e.g. Japan) and with young people.

4.2 Drawbacks

It was evident from the first stage of the research (participant observation) that there are few tourists visiting Beaujolais, and that the producers themselves consider that this sector is not well developed. Despite the reputation Beaujolais nouveau has in some markets, as noted above, the overwhelming negative idea about the region as a wine tourism destination was the image it gained from the wine – this was a factor which emerged strongly in our study of the student responses to the region. The question then arises – is it possible to entice tourists to the region despite that image (based on the assets noted above) – and in doing so will that help restore the reputation of the wine or is it necessary to rectify the image that the wine has in order to persuade visitors it is worth coming to the region.

This drawback leads directly to the next group of negatives. There appears to be a failure at local level to think strategically about wine tourism. There is no local research into wine tourists, nor understanding of their needs and expectations; for instance, even basic statistical information about visitors does not exist. This combines with the lack of any strategy to provide them with a comprehensive offer, including little real promotion of the attractions of visiting. Crucially, the local administrative bodies (the Regional Council, Departmental Council, wine industry bodies and the regional Tourism Council) are failing to coordinate their planning and activities – thus, for instance, it was noted that signage was poor. Again, the question is posed – does this failure to think strategically exist because the fundamental issue it would have to address immediately is the style of wine made locally and its reputation? There may be a conflict between the substantial vested interests involved in producing Beaujolais nouveau and those (including many other producers) who wish to develop both wine tourism and a reputation for more 'serious' styles of wine.

4.3 Some Opportunities:

The region does undoubtedly have some opportunities it could use to develop wine tourism. There is now the possibility to work with other external agencies to promote the region, linking

wine tourism further north in Burgundy (offering, for instance, two or three day packages which cross wine region boundaries) and with Lyon international airport to bring foreign tourists into the region, just as many ski fields have. The growth of new markets in Asia and eastern Europe also gives a new group of tourists who can be targeted – and who may be less put-off by the reputation of Beaujolais nouveau.

Crucially, the development of a new appellation - *Coteaux Bourguignons* (Burgundian Hills) – which is available to producers in Beaujolais as well as further north in Burgundy appellations to sell Beaujolais wines. The advantage of using this is that it associates Beaujolais with the more prestigious wines from its neighbouring region to the north, and separates it from the image of Beaujolais nouveau. However, the downside is that for those producers committed to producing traditional (and good to high quality) Beaujolais, adding a further appellation – and one linked to another region rather than one which underlines their heritage – may confuse rather than clarify or enhance their reputation. And how does one sell wine tourism in Beaujolais if the locally-used appellation is one that relates to wines made as far north as Chablis? At this point the relationship of wine image (reputation and identity) with the provision of an effective wine tourism offering becomes confused and uncertain.

5. CONCLUSION AND MANAGERIAL IMPLICATIONS

Evidently, to be better able to respond to wine tourists' needs in visiting a wine region such as Beaujolais, further research needs to be conducted to determine who the wine tourists are, what their needs, motivations and expectations are and how far current provision responds to their needs. As part of the initial study it seems that the essential offering (what Getz and Brown (2006) might call the core product) is quite attractive. It is more the peripheral factors (signage, links to other activities, and coordination which need to be addressed.

However, before any of these factors can be improved, there is another critical success factor which seems to emerge from this study, and which has not previously been given great prominence (although noted by Getz and Brown (2006) as a dimension of success) and that is reputation. This research suggests that wine reputation is more than just one amongst many equal components of successful wine tourism, rather that it is a precondition for that success on which all the other factors depend. Future research in the field will examine this further and try to understand more clearly the relationship between the reputation of wines from a region and the other factors in having a successful offering.

Managerially, this study reinforces what is already well known – that in better knowing the profile of wine tourists, a region should be able to better respond to their needs and offer a wine tourism experience that would be unique and memorable. However, for tourism and wine tourism professionals and organisers at a regional and/or administrative level there is a more fundamental challenge. It is the norm for these groups not to distinguish qualitatively between various wine producers. In the interests of fairness all are treated alike, and all should have the chance to benefit equally from the influx of visitors. But what happens when some producers produce wine which (either stylistically and/or in terms of wine quality – both typified by Beaujolais nouveau) undermines regional reputation and thus hinders the development of a suitable offering? In this case the territorial brand of a region is weakened. This is significant, because wine tourism has the potential to substantially improve the image and thus the profitability of Beaujolais as a whole. Those who manage the collective (territorial) brand need to think clearly about how reputation is managed.

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An exploratory research on the jurisprudence related to PDO wine specifications

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Purpose: *The aim of this paper is to propose an explanation of judge decisions in case of conflict on a “Protected Denomination of Origin” (PDO) wine production delimitation. Sometimes natural factors (climate, soil, etc.) appear to be predominant to determine a new delimitation, but other times human factors (know-how, history, methods, etc.) are taken into account first. We think economic history of local wine production may give an explanation to these differences.*

Design/methodology/approach: *In an exploratory work, we want to reveal a link between the nature of judge decisions (priority to natural or human factors) and the economic history of the local wine production. To do this, we analyze two PDO wine located in two distinct French regions: Burgundy and Champagne. More precisely, we compare for each region judge decisions to wine economic history.*

Findings: *Natural factors are predominant to revise PDO delimitation in Burgundy whereas the judge gives a priority to human ones in Champagne. This can be explained, at least in part, by their different wine economic history. The struggle for PDOs recognition has been led differently: wanted by plot owners in Burgundy and by merchants in Champagne. This allows each kind of actors to legitimate its position in wine production what lead to differences in winegrowing and winemaking between the two regions. If Burgundy region is characterized by a “micro-terroir” wine production, Champagne region is characterized by blending and an industrial dimension of its wine production. This can explain the trend to give a priority to natural factors in Burgundy, and to human factors in Champagne.*

Keywords: exploratory research, PDO wine, jurisprudence, economic history, hierarchisation of natural and human factors

Introduction

Within a competition in international wine sector, a differentiation based on the origin of the wine is a strategy traditionally used in Europe. This strategy resulted notably from the Protected Denomination of Origin (PDO) system creation. The term of “terroir” is also often used to describe the link between a wine and the territory in which it is produced. However, no legally act allows defining “terroir”¹. That’s why the only way to analyze this link is to explore PDO specifications. These specifications are built by the local wine producers, the latter have to define how their wine is embedded in the territory. To express it, they have two cumulative options: considering the human factors and/or the natural factors that contribute to the production of the PDO wine. If this regulation seems to give the equal importance to human and natural conditions to identify a wine on its origin, this is not easy to turn into practice. The analysis of jurisprudence cases shows that some factors are predominant, the kind of which (natural or human) varies from a wine region to another. This leads us to wonder where these legal differences come from. In other words, the issue remains in what is mandatory to identify the origin of a wine and how the notion of “terroir” is understood. Is there another way to differentiate wines between those that are mainly defined in the PDO specifications by human factors and those that are mainly by natural factors? To explore these questions, we suggest (1) to present the European PDO system and demonstrate that there is a trend to prioritize one kind of factor instead of another when judges have to make decisions dealing with the delimitation of a PDO production area; (2) to show that the hierarchisation of natural and human factors may vary from one wine region to another, or more precisely from one PDO wine to another. We will attempt to explain it in an exploratory analysis based on the economic wine history of each region.

1. From PDO regulation to a hierarchisation of the ways to link a product to its origin

The PDO system has to be regarded as an efficient legal tool to protect products for which typicity arises from their origin. To understand how this recognition functions, both the French national regulation on “Appellation d’Origine Contrôlée” and the European regulations on PDOs has to be analyzed (1.1). However, these regulations do not explain what these factors are and do not give an exhaustive list of what they can be. The only way to give more details about natural and human factors is to analyze the PDO specifications. Moreover, French and European regulations seem to give the same importance to each factor, but when they are turned into practice, one factor may become predominant (1.2).

1.1. A regulation in favor of an equality of scientific factors

What the drafter of the Act intends is to develop an effective legal tool based on homogeneous factors to protect products. This means that the typicity is founded on the origin of the products, and that this origin can be appreciated with the same type of factors from a region to another. In France, the article L115-1 from the Consumer Code establishes that “*a denomination of origin from a region or a territory is used to designate a product which is*

¹ OIV in its “RESOLUTION OIV/VITI 333/2010” gives a definition of “terroir”, but it has no legal recognition.

native of this place and whose quality or characteristics are due to its geographic location, a geographic location being defined as natural and human factors” (personal translation). European regulation describes PDO in Article 34 from the Common Organization of the Market (479/2008) as follows “*a designation of origin means the name of a region, a specific place or, in exceptional cases, a country used to describe a product referred to Article 33 that complies with the following requirements: its quality and characteristics are essentially or exclusively due to a particular geographical environment with its inherent natural and human factors*”. These two definitions show that geographical delimitation is the principal element used to identify the product, but we understand that it is also necessary to take into account scientific factors i.e. natural and human factors.

By analyzing French and European regulations on denominations of origins, it is easy to identify an equality principle between natural and human factors. In the French regulation, we even notice coordination between the two kinds, which means that one cannot function without of taking the other. The French judge² recently reminded the importance to take into account the two simultaneously when dealing with a case of denomination of origin. He asked the “Institut National de l’Origine et de la Qualité” (National institute for origin and quality products) to take into account the significance of that homogeneity when their technicians analyze an upgrading or downgrading of a plot. If natural factors (geological and climate characteristics for example) are often analyzed in these cases, the judge reminded that human factors have to be taken into account with the same level of consideration.

Despite the fact that the judge pointed out the importance of describing the two scientific factors and of highlighting their interaction, this is not sufficient to remove a hierarchisation between them when the regulation is applied.

1.2. From the enforcement of the regulation to the hierarchisation of scientific factors

An unequal status between natural and human factors emerges when the rules are applied. In most cases, natural factors seem to become predominant. Several examples of jurisprudence cases demonstrate the existence of a hierarchisation between natural and human factors characterized by the predominance of one factor (Georgelin, 2013). Here we make the choice to refer to the decision of the “Conseil d’Etat” concerning Margaux PDO in the Bordeaux region. Two judge decisions show that for this PDO, natural factors are always taken into account first:

- In the Château d’Arsac case³ in France, the judge uses only the natural factor to justify that this “château” belongs to the Margaux PDO. He demonstrates that geological conditions, tilt, sun exposure, etc., respect the characteristics described in the Margaux PDO specifications.
- Much has been written on the second case, which concerns the Château Marquis de Terme⁴. This case deals with the integration of the Château Prieuré Lichine in the

² European Commission, June the 12th, 2013, n°350214, Inédit au recueil Lebon.

³ European Commission, from 1993 to 1998, Château d’Arsac case.

⁴ European Commission, 30th december 2009, n°311113, Société Château Marquis de Terme, JurisData n°2009-018990.

Margaux PDO area of production. The judge was asked to delete the decision n°2007/1412 taken the 1st of October 2007, which ambition was to remove some plots of this château from the Margaux PDO. To take his decision, the judge has determined which characteristics have to be highlighted for a wine to become a PDO. He concludes that natural factors are the first to be taken into account, before historical facts or other human factors.

We have found many examples of jurisprudence both in France and Europe⁵ that allow us to think that there is a systematic hierarchisation between natural and human factors. Even if there are lots of examples where natural factors are predominant, this doesn't mean that the human factor is never the first to be taken into account. Another question has to be pointed out: are the judges really legitimate to give more importance to one factor rather than another? This means that there is a legal vacuum in the PDO specifications that gives the judge a large opportunity to interpret the rule. To conclude this first part, a real antagonism between jurisprudence and regulation appears. This leads us to think that a hierarchisation between scientific factors is unavoidable.

2. An explanation of differences in the judge's interpretation of PDO specifications: case studies

In the first part, we showed that the jurisprudence tends to induce a hierachisation between natural and human factors. In this part, we will show that if natural factors are often preponderant, we can find at least one case in which human factors are predominant. This case is the Champagne PDO. This leads us to a new question: how can this exception and/or these differences in the judge's interpretation from one wine region to another be explained? (2.1.). Answers can be found in the diversity of ways local wine productions are built and promoted. In order to illustrate our idea, we will make a comparison between two French PDOs: the Champagne PDO, for which the judge takes firstly human factors into account, and the Aloxe-Corton PDO in Burgundy, for which the judge considers natural factors first (2.2.).

2.1. Case studies of judge decision

It is thanks to the human and natural factors written in its specifications that each PDO wine is recognized as legally embedded in a territory. However, when a judge is required, we notice that one of the two factors becomes dominant. As explained in the first part, the judge seems to refer systematically to natural factors. But we found a ruling concerning the Champagne PDO showing that human factors are considered first. We would like to give an explanation of these differences between jurisprudence cases. In this part, we will thus present two contradictory cases: the Judgment N°241332 of the 13th of June, 2003 relative to the Champagne PDO and the Judgment N°279775 of the 25th of October, 2006 relative to Aloxe-Corton PDO.

We will first consider the Judgment N°241332 of the 13th of June, 2003 relative to the Champagne PDO. One of the champagne professional unions asked the "Conseil d'Etat" to

⁵ European Court of Justice, 7th November 2000, aff. C-312-98 Warsteier Breuerein, Rec. CJCE 2000, I, p.9187.

cancel the 23rd of October, 2001 decision which included some plots of Fontaine-sur-Ay in the Champagne PDO. But the judge decided to maintain these plots in the appellation by asserting that the vineyard had always been implanted in the village, even before the phylloxera period. Indeed, this reason is a principle notified in the article n°17 of the 6th of May, 1919 Law defining the boundaries of the Champagne production area. This is the reason the reason why no research on soil characteristics or other natural conditions has been done, but only historical research providing evidences of wine production. Human factors have primarily been taken into account.

But the analysis of the Judgment N°279775 of the 25th of October, 2006 relative to Aloxe-Corton PDO shows us that this predominance of one kind of factor may differ from one PDO wine to another. The Burgundy case will help us to illustrate this statement. The conflict is the same as in Champagne, because it concerns the cancellation of a decision relative to the integration of a plot in the Aloxe-Corton appellation. However, although the plot owner gave the judge a geological study, the latter decided nonetheless to downgrade the plot. On the basis of this study, he concluded that the link with the natural conditions required by the Aloxe-Corton PDO specifications was too weak. The decision was thus based on natural factors without trying to look for evidences of human factors.

Although both natural and human factors have to be taken with same consideration in order to acknowledge the origin of a product, these two jurisprudence cases show us that one of them always tends to be predominant. Moreover this hierarchisation may differ from one PDO wine to another.

2.2.How to explain these variations in the interpretations of PDO specification?

We will now seek to understand where these disparities come from. We will hence propose an exploratory work in order to try and understand what may influence judges' decisions. Indeed, we wish to highlight the link between these decisions and the economic history of the wine producing region. In other words, we will compare the economic history of two wine regions in order to explain why judges argue differently when dealing with the Champagne PDO and the Aloxe-Corton PDO. We want to link the results of these case studies (natural factors are dominant in the judge decision in Burgundy whereas human factors come first in Champagne) with their respective economic history. The European PDO system regulates Champagne and Burgundy productions and requires natural and human factors both to be described in their specifications. We will first show that despite this European effort to homogenize wine productions, each of them retains its particular nature: each wine has specific characteristics. We will then show that these disparities depend also on the way the local actors asked for PDO recognition, which occurred differently in the two regions.

The Burgundy⁶ wine region is characterized by a “micro-terroir” wine production (Delaplace, Gatelier, et Pichery, 2012 ; Delaplace et Gatelier, 2014). This implies that the wine has to be produced on very small plots defined by localized natural conditions and specialized cultural practices (Pitiot et Servant, 2010). In other words, wine is produced with a unique grape

⁶ Especially in « Côte de Nuits » and « Côte de Beaune » in Côte d'Or French department.

variety harvested on a given year and on a unique plot. This specificity allows Burgundy producers to benefit from a “natural” differentiation of their wines that is “culturally kept” to promote the local wines, it can be seen in the collective marketing “Small plots, high reputation”⁷. In the Champagne wine region, the promotion of wines is different. The Champagne wine is characterized by a large area of production and strong commercial brands. Each brand is recognizable by its own style and its own taste. This taste is built by blending different grapes varieties harvested in different plots and different years. Each brand aims at providing bottles with a constant taste. The way to promote Champagne wines is radically different as Burgundy producers do.

These contradictions also reflect the way by which the struggle for PDOs recognition has been led. In Burgundy, the PDO recognition has been wanted by the plot owners because wine merchants labeled their wines with the already famous plot without producing them with local grapes. Burgundy vineyard owners suffered from this prejudice and decided to ask for a legal protection of their wines (Jacquet, 2004). This PDO strategy allows the diversity of the burgundy wines to be protected, *i.e.* its “micro-terroir” particularity. In the Champagne region, the strategy leading to the recognition of the appellation was totally different. This strategy was implemented by some merchants who had detected the opportunity to give more renown to Champagne wines by improving their quality and maintaining their scarcity (Barrère, 2007). These merchants wanted other local wine actors to follow them in this strategy, which was later formalized as a quest for the recognition of the appellation. It also contributed to define Champagne wines as “white blended sparkling wines”, a definition that implies the use of innovative means of winemaking that only these merchants were able to provide (Barrère, Ditter, et Brouard, 2010). This gives us some insights on why they were really active in this definition: they wanted to protect their position in Champagne production.

To sum up, in the Champagne region, human factors of production (know-how, legal delimitation of the area, etc.) seem to be predominant to identify a bottle, whereas natural factors (localization and name of the plot) are the most important criteria to characterize Burgundy wines. This is due to a long historical construction of the characteristics of the local wines that have since been legally recognized in the PDO specifications. These differences in the historical construction of local wines have led to differences between PDO specifications. This particularly contributes to the hierarchisation of natural or human factors in the jurisprudence. Indeed, the judges may be influenced by the fact that a factor may be more developed in PDO specifications and/or by the fact that local wines are promoted by either human or natural factors of production.

Conclusion

In this paper we have shown that even if the PDO regulation requires the human and the natural factors to be equally important to define a wine, in practice, one of the two is often predominant over the other. Moreover, that hierarchisation appears to be different from one

⁷ Collective marketing of Burgundy wines by the Bureau Interprofessionnel des vins de Bourgogne, 2011.

wine region to another. In this paper, we aimed at giving an exploratory framework to understand these differences through an analysis of the economic history of wine regions. Beyond the PDO system, the way by which local wine productions have been built and are today promoted may influence the jurisprudence and the importance given to one factor or the other. In other words, if the hierarchisation is certainly unconscious for the lawyer, it becomes very explicit when we analyze the economic positioning of local wines and their history. This may be the cause of the differences in the importance given to either natural factors or human factors when there is a conflict on the extension of the area of an appellation.

During our research, we also discovered that for the same PDO, the hierarchisation of human and natural factors may vary over time. That is the case of the Champagne PDO which bases its claim for an “Appellation d’Origine Contrôlée” on historical facts (human factors). On the contrary, Champagne actors ask for a revision of their production area invoking natural factors of their PDO specifications. This leads us to wonder if the relationship between a wine and its origin may evolve as time passes in order to bring an answer to new issues. This also confirms the relevance of building a more precise framework highlighting the existence of a link between the dynamics of the wine sector and the criteria that influence the decisions of the judges.

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Store image perception of retail outlets for wine in China

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Purpose: This project aims to measure and compare the images of major bricks and mortar and on-line wine retailers in China.

Design/methodology/approach: The sample consisted of middle to high income Chinese wine consumers, who purchased imported wine at least twice in the last year. Over 1,000 consumers from five major cities rated a selected number of major retailers and wine websites on a range of store image characteristics. These are presented as multidimensional maps using correspondence analysis.

Findings: Major grocery/wine retailers were fairly similar with some perceived differences in customer service and wines carried. Local retailers had higher levels of perceived service. The websites differed more, especially on private labels and security, and overall were hard to navigate and hard to find the prices.

Practical implications: Retailers can use these perceptions to improve or change image in comparison to key competitors. Wine producers and distributors can understand how consumers perceive different brands of retail stores and use this in deciding on merchandising and promotion strategy.

Key words: China, retailer image, bricks and mortar, on-line, correspondence analysis

1. Introduction

It has been widely noted that the wine market in China is expanding rapidly. In order to be part of this expansion wine producers must place their wine on shelves or online to make sales. Understanding the perception consumers have for different traditional retail and online outlets is important, because wineries can strategically think about the chains where their products could be distributed. Store perception is typically measured using several dimensions (product range, pricing, staff, image and location) (Lockshin and Kahrimanis, 1998; Burt and Carralero-Encinas, 2000, etc.).

Despite the number of papers published on the concept of store image, there isn't much published on Chinese grocery retail outlets, and even less on traditional retail and online outlets for wine in China.

2. Literature review

Burt and Carralero-Encinas (2000) tackled the issue of retailer perceptions and the differences and similarities between markets. This is important to this research, as many of the retailers in China are brands imported from Europe and the United States. Hartman and Spiro (2005) furthered research on store image by incorporating the construct of store equity based on brand equity measures. This adds support to this research's endeavours to use brand equity measurement techniques to assess store image. Studies by Verhagen and van Dolen (2008) and van der Heijden and Verhagen (2004) explored the impact of the online component in a multi-channel retailing strategy and website presentation on store image perceptions. Both studies were conducted in a developed market with heavy Internet adoption and openness. These studies help scope out the need and value for understanding online store image in a relatively unexplored and heavily regulated online market such as China.

Lockshin and Kahrimanis (1998) investigated the attributes consumers use to evaluate wine retailers and developed some of the items utilised in this research. Goodman et al. (2010) explored the use of store choice attributes in order to improve segmentation in wine retail and some of those items are included here. Finally, Lockshin and Corsi's (2012) review of consumer behaviour research since 2003 suggests the need for further research in wine retail image.

3. Sample and method

The data were collected in October 2013 through an on-line survey, generating 1094 completed questionnaires. The sample was socio-demographically representative in terms of age, gender and income of the upper-middle class urban population aged 18-49 living in Beijing, Shanghai, Guangzhou, Chengdu, Shenyang, and Wuhan who drink imported wine at least twice a year. After checking for flat-liners, speeders and inconsistent responses, the sample was reduced to 966 analysable questionnaires. The majority of respondents were 30-39 years old (42%), male (67%), earning more than RMB 10,000 (AUD 1,500) per month (50%), living in Shanghai (43%), Guangzhou (19%), and Beijing (20%).

The questionnaire included questions relative to different aspects of attitudes and behaviour towards wine in general and specific items related to the retail sector, but for the purpose of this paper, we will focus on the perception respondents have about different traditional and on-line retailers in relation to wine across different store image dimensions.

The list of traditional and on-line retailers included in this research came from the ranking of wine retailers consumers were most aware of in China (Wine Intelligence, 2013) in conjunction with a qualitative review of the most popular retailers done by the authors during multiple visits to China in 2013. The traditional retailers included in alphabetical order, Auchan, Carrefour, Liahua, Lotus, Metro, RT-Mart, Tesco, and Walmart. In addition to these multiple

grocery chains, it was decided to include another option in the form of “my local wine store”. This option reflects the fact that the grocery retail structure is very fragmented, with the leading grocery retailer, China Resources, holding a value share of only 3% of the market by value in 2012 (Euromonitor International, 2013). Traditional retailing still plays a fundamental role in China especially in areas where modern retailers have not yet established a significant presence. The following wine websites were included: Juixian.com, Mintcellars.com, Pinwine.com, Tmall.com, Yesmywine.com, and Winenice.com.

The list of items chosen to evaluate the perception towards traditional retail stores was adapted from the items developed by Lockshin and Kahrimanis (1998) and Burt and Carralero-Encinas (2000) to measure retail store image. From there, the list of items relative to on-line retailers was developed, making sure the items used for the on-line stores matched as closely as possible with that developed for traditional retailers. Two exceptions need to be mentioned. First, instead of items measuring the perception of staff in on-line stores, we included items on the overall perception of the website. Secondly, instead of retail location items, we included items on the security of financial transactions and delivery options, as suggested by Van der Heijden and Verhagen (2004). The full list of items for the two retail typologies is included in the Appendix.

A *pick-any* approach (Driesener and Romaniuk, 2006) measures the association of each store image item with each of the traditional and on-line retailers. This methodology was first developed in the branding literature (Bogomolova and Romaniuk, 2010; Nenycz-Thiel and Romaniuk, 2009), but it has been applied to other research fields, such as tourism (Bowe et al., 2013), pricing (Sjostrom et al., 2013), sensory analysis (Jaeger et al., 2013), and wine (Corsi et al., 2011). The method consists of showing respondents a list of items for each of the dimensions researchers want to investigate. For each dimension respondents are asked to indicate which, if any, brand (in our case a retailer) they would associate with each item. Respondents could select as many items as they wanted and could also link the same attribute to more than one retailer. Like other forced-choice methods, the *pick-any* approach allows obtaining similar information as other forced-choice approaches, but it is quicker to understand and complete (Bogomolova and Romaniuk, 2010).

Correspondence analysis (CA) was used to analyse the data. This multivariate statistical technique is conceptually similar to principal component analysis (PCA), but instead of using continuous variables, it is applicable to categorical data. As in PCA, the output of CA is a set of coordinates onto the i dimensions of a CA plot for each of the items included in the analysis (in our case wine retailers and descriptors). For ease of interpretation, the plot is often reduced to two dimensions. However, different to PCA, where each axis can be defined by the factor scores each original variable is loaded into, the axes in CA have no other meaning than a bi-dimensional representation of the associations between the items displayed in the plot (Beh, 2004; Greenacre, 2007).

4. Results

The results for the traditional retailers reveal two groups of retailers, while ‘my local wine store’ is positioned far from the retail chains and defined by different store image elements. Walmart and Carrefour are clustered together and are mainly characterised by elements relative to the products carried. The two chains are perceived to carry a wide selection of wines, which are of good quality and generally available in stock. These products are easy to find on shelf, and, offer an easy to return policy. Some characteristics also emerge in relation to pricing. Respondents perceived that the wines stocked by these two retailers are good-value-for-money, perhaps due to the fact that discounts are available, and that prices are easily visible on shelf. Finally, these two retailers are considered to be totally trustworthy and located in convenient

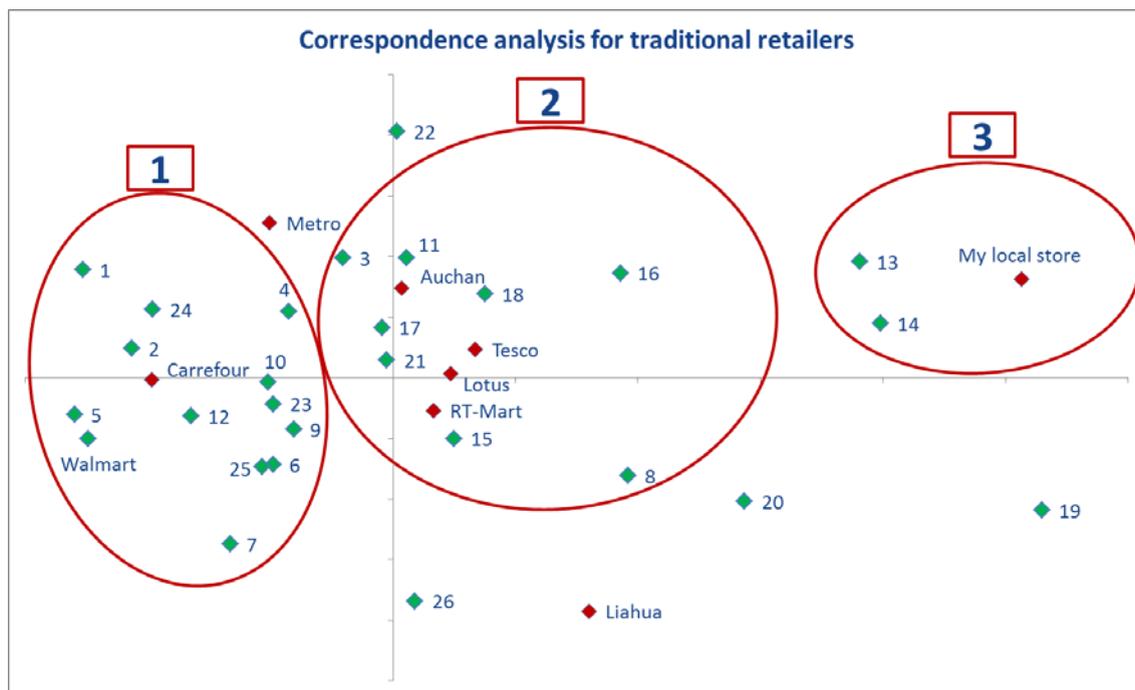
locations.

The second group of retailers comprises Auchan, Tesco, Lotus and RT-Mart. These players seem to be characterised by a more balanced mix of the four store image dimensions. In terms of products, these chains are perceived to carry fashionable wines and to be chosen for on-line purchases too. The prices are considered low compared to similar retailers, and in terms of overall store image, respondents feel that the stores are clean and tidy, have an excellent atmosphere, and are more suitable to serve the middle class. Different from Walmart and Carrefour, these retailers are characterised by a good perceptions of staff: friendly personnel who provide good customer service.

‘My local wine store’ prevails over corporate retailers only in terms of personnel. When purchasing at a local store customers state they can rely on staff, with whom they can develop a good relationship and who is able to give recommendations about the wines.

Interestingly, two retailers – Metro and Liahua – do not seem to be associated with any dimension in particular, though Metro is relatively close to Auchan. Also, private labels (#4) don't seem to be connected to any chain, as this item sits between the two main groups of retailers. Similarly, other general store image dimensions such as being a world-class retailer (#22), having a Chinese appeal (#20), or projecting a conservative image (#19) do not belong to any retailer in particular. Finally, a previous purchase from a retailer is another characteristic not associated with any chain, as respondents are likely to have purchased from one or more of the retailers presented in this research.

Figure 1: Correspondence analysis map for traditional retailers



The analysis of on-line wine retailers shows four groups of stores, two of which are characterised by a homogenous mix of the five store image dimensions, while the other two retailers emerge in relation to general store image aspects and security of transactions and delivery options.

Yesmywine.com and Juixian.com are thought to carry a wide selection of wines, which are also fashionable. They offer price discounts, they have an attractive website, respondents frequently see advertising by these on-line retailers on the Internet, and they have total trust in on-line transactions with these stores. Also, respondents seem to associate previous purchases more

with these two retailers than with others.

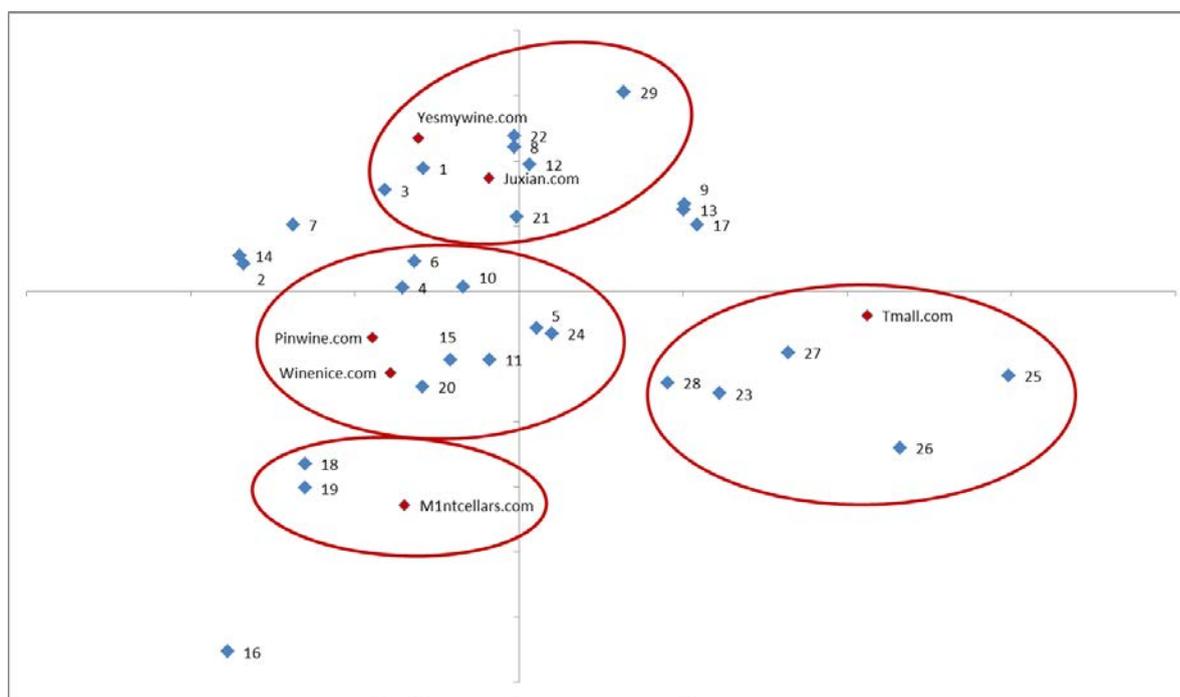
Pinwine.com and Winenice.com are also appreciated for their products and value, which are perceived to be always in stock, can be easily returned, are of good value for money, and offer a good range of private labels. The website is fun and customers find the navigation a pleasurable experience. In terms of security, the most important aspect associated with Pinwine.com and Winenice.com is that personal data are safely kept confidential, thus contributing to an overall reliable image of these retailers.

Tmall.com, the largest of the operators considered in this study, is exclusively characterised by the security of transactions and delivery options. This on-line retailer offers safe and fast financial transactions, has a number of safe and fast range delivery options.

Finally, Mintcellars.com is mostly associated with the ability to serve the middle class and is perceived be a world-class retailer.

As above, several store image dimensions do not seem to be connected with any specific on-line retailer. In terms of products, none of the retailers is thought to stock good quality wines (#2). The prices offered by these retailers seem to be comparable, as no store is perceived to offer low prices compared to the others (#7). Also, prices seem to be hard to identify in any of the websites, as no store is perceived to make prices clearly visible (#9). This is reflected in the fact that none of retailers have an easy to navigate website (#13), and that no on-line retailers provide good recommendations about the wines. Finally, no website in particular has a clear Chinese appeal (#17).

Figure 2: Correspondence analysis map for on-line wine retailers



5. Discussion and conclusions

This is the first paper to consider the store image and attributes of major wine retailers in China. The traditional bricks and mortar retailers seem to fall into two groups plus the local wine store. Consumers see local shops as providing good customer service, while the Walmart-Carrefour cluster are not recognised for this. The third cluster is located between the other two. This means that wineries needing some personal selling would do better in cluster 3 or 2, while wineries with substantial advertising would likely do better in Walmart or Carrefour. This is a

surprising result. Upon visitation to a wine department in a major hypermarket in China, anecdotal evidence provided by the authors report being swarmed by sales staff trying to push/recommend particular wines. Language impediments prevented comprehending their pitch, but clearly Chinese do not perceive this sales support as helpful. The image of stores in cluster 2 is better, but our evidence from another component of the survey is that consumers shop a number of these major store brands. It is also interesting to note there seems to be no image differences between the international chains and the major Chinese one.

There are more differences among the on-line retailers than among the major bricks and mortar ones. Yesmywine and Juxian are perceived to advertise more and have the perception of repeat purchase, which seem to go together. Pinwine and Winenice are known for private labels and for secure personal data, while Tmall has secure transactions and better delivery. None of these image attributes would seem of major importance to wine producers, but might be useful to the stores themselves for improving their position in the market. It also seems clear there is potential to gain customers by developing an easy to navigate website, clearly marked prices and wine recommendations. Some of the larger wineries or even wine regions might choose to ally with a particular retailer and help develop the recommendation part of the website.

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7. Appendix

Table 1: List of items for traditional retailers store image

Dimension	#	Items
Product range	1	The retailer carries a wide selection of wines
	2	The wines stocked by the retailer are of good quality
	3	The wines sold by the retailer are fashionable
	4	The retailer's private label brands are reliable
	5	The retailer operates an easy return policy for wines
	6	The retailer always carries the wines that I want in stock
	7	The wines that I want are easy to find on shelf
	8	I buy on-line from this retailer
Price	9	The retailer makes the prices of the wines easily visible on the shelf
	10	Discounts are available from the retailer
	11	Prices for wines are low compared to similar retailers
	12	You get good value for money on the wines sold by the retailer
Staff	13	The staff is able to give recommendations about the wines
	14	The staff develop a good relationship with the customers in the store
	15	The retailer personnel are helpful
	16	The retailer personnel are friendly
General image and location	17	The retailer's stores are clean and tidy
	18	The retailer's stores atmosphere is excellent
	19	The retailer projects a conservative image
	20	The retailer has a clear Chinese appeal
	21	The retailer serves the middleclass
	22	The retailer is a world class wine retailer
	23	The retailer transmits a reliable image
	24	I find the retailer totally trustworthy
	25	The retailer's stores are located in convenient locations
	26	I have shopped at this retailer previously

Table 2: List of items for on-line retailers store image

Dimension	#	Items
Product range	1	The online retailer carries a wide selection of wines
	2	The wines sold by the online retailer are of good quality
	3	The wines sold by the online retailer are fashionable
	4	The online retailer's private label brands are reliable
	5	The online retailer operates an easy return policy for wines
	6	The online retailer always has the wines that I want in stock
Price	7	The online retailer makes the prices of the wines easily visible on the website
	8	Discounts are available from the online retailer
	9	Prices for wines are low compared to similar online retailers
	10	You get good value for money on the wines sold by the online retailer
Website image	11	The website is fun
	12	The website is attractive
	13	The website is easy to navigate
	14	The website provides good recommendations about the wine
	15	I have great pleasure browsing through the website
General image	16	The online retailer projects a conservative image
	17	The online retailer has a clear Chinese appeal
	18	The online retailer serves the middleclass
	19	The online retailer is a world class wine retailer
	20	The online retailer transmits a reliable image
	21	I find the online retailer totally trustworthy
Financial transactions and delivery options	22	I frequently see advertisement about the online retailer on the internet
	23	The online retailer offers a wide range of delivery options
	24	The online retailer keeps my personal data confidential
	25	The online retailer has safe financial transactions
	26	The online retailer has fast financial transactions
	27	The online retailer delivers wine fast
	28	The online retailer delivers wine safely
	29	I have shopped at this retailer previously

Chinese consumer's perception of the image of German wines:

Opportunities and challenges of a less-known country of origin

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◦Purpose

The information of country of origin (COO) plays an important role in the process of making decision during wine purchase among Chinese consumers. In the past decade, the well-known COOs, such as France, Australia, have dominates the import wine market. However, with the maturation of the market, will the less-known COOs draw more attention from the Chinese consumers? This research aims at evaluating the current image of a less-known country of origin (COO), taking German wines as an example, among Chinese wine opinion leaders and exploring the challenges and opportunities for these COOs in the future.

◦Methodology

A mixed method of seven qualitative interviews and sixty quantitative on-line surveys with wine opinion leaders were conducted between September 2013 and January 2014. The interviews and surveys focused on Chinese wine consumers' awareness of German wines, their perception of German wines and their views on the future German wine sales.

◦Findings

The results indicated that Chinese consumers have low familiarity of German wines, even the wine professionals defined in this research. They gain German wine information through more serious channels such as published wine books and wine magazines. The taste of German wines varies from their existing taste preferences. Increasing the exposure of the German wines is regarded the most important elements for German wine promotion.

◦Practical implications

The findings of the research provide wine marketers from less-known COOs an initial impression of future Chinese wine consumers, from the current opinion leaders' view. Supports from COO authorities through appropriate communication channels are still heavily valued in educating the market.

Key words: country of origin, China market, German wines, consumer behaviour

1. INTRODUCTION

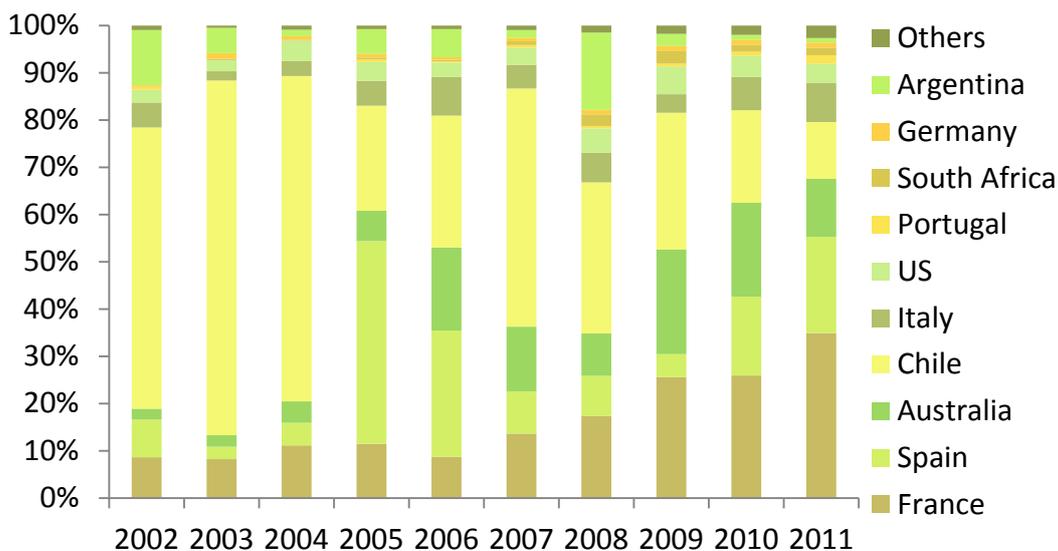
In 2012, Lockshin and Corsi (2012) reviewed 17 papers on the effects of the origin on wine consumers and concluded that COO is a key factor influencing wine choice. The importance of COO is moderated by other variables such as price, brand and awards and consumers' involvement and knowledge of wine (Perrouy et al. 2006; Remaud, Lockshin 2009; Famularo et al. 2010). As early as 1999, Duhan et al. already emphasized it is important for wine marketers to understand the influence of origin identity.

The COO effect on wine choice is the most discussed topic in Chinese wine consumer studies. Undoubtedly, the COO element is important and influencing consumers with other combined attributes. Balestrini and Gamble (2006) investigated wine buyers from Shanghai and found that as an extrinsic cue, COO information is paid more attention when consumers buy wines for special occasions than for personal use due to the face culture. A later research (Hu et al. 2008) in Shanghai and Hangzhou added gift giving to the purchase motivations that affects the importance of COO. In another research in Beijing, Yu et al. (2009) examined the attributes affecting purchase decision under different consuming purpose including daily use, business dinner, private date and as a gift. In the results, it showed that typical consumers choose mainly Chinese wine for daily use, and they show preference to French wines for gifting and business dinner. Chinese consumers regard wines from abroad, or more specified from a certain COO, better quality (Kaynak et al. 2000); therefore it should be served on more public occasion than personal consumption due to the Chinese face culture. In a heterogeneous less-developed market like China where consumers have comparatively low familiarity of wine, when facing so many types of wines coming from abroad, consumers are likely to use decision heuristic which simplify the decision making focus on one or two characteristics of the product (Duhan et al. 1999; Chancy 2002) and reduce perceived risks.

Such importance is not only proved theoretically by academician but also supported by the actions of the authorities of many wine regions and countries. In China, Old World origins such as Bordeaux, Burgundy and Spain have been giving certified courses for many years as well as Australia in 2011. In 2013 California, New Zealand started to educate the Chinese wine professionals and consumers about wines from their own regions. In 2014, Germany and Portugal just joined this campaign. And there is a trend that such wine education focusing on origin is narrowing and drilling into smaller range, such as from Australia A+ to Barossa Wine School.

According to Euromonitor International, China's wine market size reached 2.1 billion litres by volume and 151 billion renminbi by value in 2012. Among this big cake, import wine accounted for more than 25%. Dating back to 2002, a decade ago, the import wine segment only contributed 2% of the total market. Figure 1 depicts the evolution of the COO distribution of import wine sector in the past decade. Notably, since 2009, the market share distribution has been more even and less monopoly. It might be one of the signs that the China wine market is entering into a more mature period after an explosive growth and, Chinese consumers are open to try something new rather than French wines.

Above all, will the new era of China wine market benefit the smaller origins like Portugal, South Africa, Germany, Argentina and so on?



Source: 2013 Euromonitor International

Figure 1 China import wine market share by countries of origin in volume 2002-2011

Therefore, in this research, wines of Germany was taken as an example to test the Chinese consumers' perception of the image of a less-known COO and, look for the chances and challenges ahead in a future mature market.

In the past decade, Germany has maintained a small but stable market share between one and two percent of import wine sector. According to Deutschen WeinInstitut (German Wine Institute, 2013), the export volume of German wines to China (3.4 million litres in volume and 13 million euro in value) kept increasing even when Germany reduced total wine export due to the continuously drop of production. The export unit price of German wines to China (close to 4 euro/litre) is far above the average export price or the export price of quality wines (Qualitätswein). For Germany, China is still a profitable export destination.

2. METHODOLOGY

In this research, a mixed method was chosen. A researcher collects both quantitative and qualitative data concurrently and separately. When the data is ready, the researcher runs statistical analysis on the quantitative data and general inductive content analysis of qualitative data, separately. The two approaches are connected by the merge of the results of these two data sets, followed by a further interpretation and summary.

2.1 Target participants

In this study, both quantitative and qualitative researches aimed at those who have high involvement in wines, such as wine trade, wine professionals. This target group is defined as wine opinion leaders.

Choosing the wine opinion leaders is for the following reasons. Firstly, the population of mass wine consumers in China is huge but unevenly distributes. Investigation on end consumers costs high efforts but low representation and efficiency. On contrary, inquiring one opinion leader is more likely

to gain a summary description of more than one consumer. Secondly, these people act like gatekeepers for the China import wine market. End consumers can only buy what is available in the market. Thirdly, the popularity of social media and the heat of wine education, no matter at training centre or self-educating, provide platforms for the opinion leaders to spread out their voices. Following these professionals' idea offers those who have low familiarity of wine a sense of security. In another word, it is the effect of word of mouth. Fourthly, with the maturation of the market, consumers are supposed to have higher knowledge and involvement of wine. Studying consumers with higher wine knowledge and involvement might give clues to predict the future consumer behaviour.

Therefore, the insights from these people are regarded valuable and effective in this research.

2.2 Qualitative data collection

Face to face semi-structured interviews were mainly conducted in two wine fairs in September and November 2013. In total seven face-to-face interviews were done. The demographics of the interviewees are shown in Table 1.

Table 1 Qualitative research interviewees' demographic

Interviewee	Region	Job position
A	North	Area manager, wine retailer, trading German wine
B	North	Marketing manager, négociant, trading German wine
C	South	Vice general manager, importer, trading German wine
D	East	General manager, importer
E	East	Project assistant, marketing consultancy
F	Southwest	Vice general manager, distributor
G	Southwest	General manager, wine website

The semi-structured interviews were carried out with designed open-end questions regarding the following topics:

- a) awareness of German wines;
- b) opportunities and challenges for German wines in China market;
- c) Suggestions and improvements for German wine trade.

Interviews were conducted at fair venues or with appointments out of the fairs in Chinese Mandarin. All interviews were digitally recorded for making separated manuscript for the following content analysis. Strategies, know-how, experiences and practices are collected with emotions, tones, pauses. In some cases, explanation of the questions was given to the interviewers, included in the manuscript.

2.3 Quantitative data collection

An online quantitative questionnaire was set up to collect data between October 2013 and January 2014. Initially there were 60 respondents in total. After filtering by the German wine drinking frequency, 47 respondents who drink German wine at least once a year were left. The detail demographics of the respondents are shown in Table 2.

Table 2 Respondents' profile

Demographics	Frequency (n=47)	Percentage
<i>Region</i>		
East	14	29.79
North	17	36.17
South	10	21.28
Southwest	3	6.38
Northwest	2	4.26
Mid	1	2.13
<i>Categories</i>		
Importer and other mediators	15	31.91
Wine lovers	10	21.28
Sommelier, wine education, association, critics	7	14.89
Student	6	12.77
E-commerce	0	0.00
Wine media (magazine, website)	6	12.77
Retailer	2	4.26
HoReCa	1	2.13
<i>Drinking frequency</i>		
At least once a week	10	21.28
At least once a month	37	78.72
<i>Gender</i>		
Male	19	40.43
Female	28	59.57
<i>Age</i>		
18-25	13	27.66
26-35	22	46.81%
36-45	8	17.02%
46-55	2	4.26%
> 55	2	4.26%

The main concerns of the questions were summarized as below:

- a) awareness of German wines;
- b) perception of the image of German wines;
- c) satisfaction of German wines.

Besides the designed semi-structure interviews with 7 interviewees and quantitative surveys with 47 respondents, comments from free conversations at the wine fairs and wine events, store checks, working experiences in a trade company and daily observation were collected. Notably, this part of data was not intended for scientific analysis, but they seemed to be useful to illustrate trends in the discussion part of this study or to offer possible explanations for the findings.

3 FINDINGS

3.1 Awareness of German wines

In the qualitative interview, the first three mentioned words when the interviewees were asked what they think of when mentioning Germany came out to be beer, car and white wine. Two out of seven interviewees claimed that “I think of Germany when I talk about Riesling, but not the other way round”.

In the quantitative survey, respondents were asked to name the grape varieties, wine regions and brands of German wines. “Riesling” was the most mentioned word both in variety category and among all the mentioned words. Riesling and Spätburgunder were the most well-known varieties for German wines. Mosel and Rheingau were famous wine regions for the respondents. Weigut Joh. Jos. Prüm, Schloss Johannisberg and Dr. Loosen were pronounced brands in the respondents’ mind. By the observation of visiting the wine shops, supermarkets and online wine shops, all these frequent mentioned words come from the German wines which present in the China market. In another word, it is more common to find a bottle of German wine made by Riesling grapes than the one made by Sylvaner in China market. The respondents were asked also whether they know about Sekt and German red wines. The results show that 97.87% respondents knew about German red wine and 87.23% knew about Sekt.

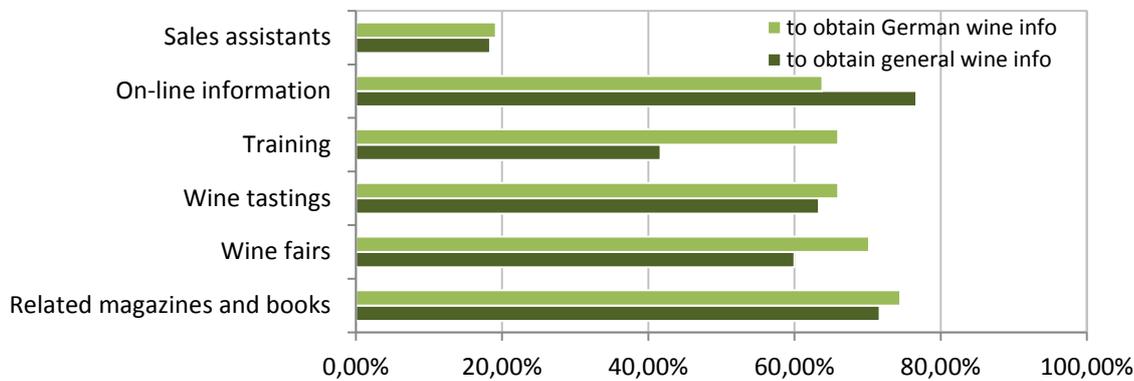
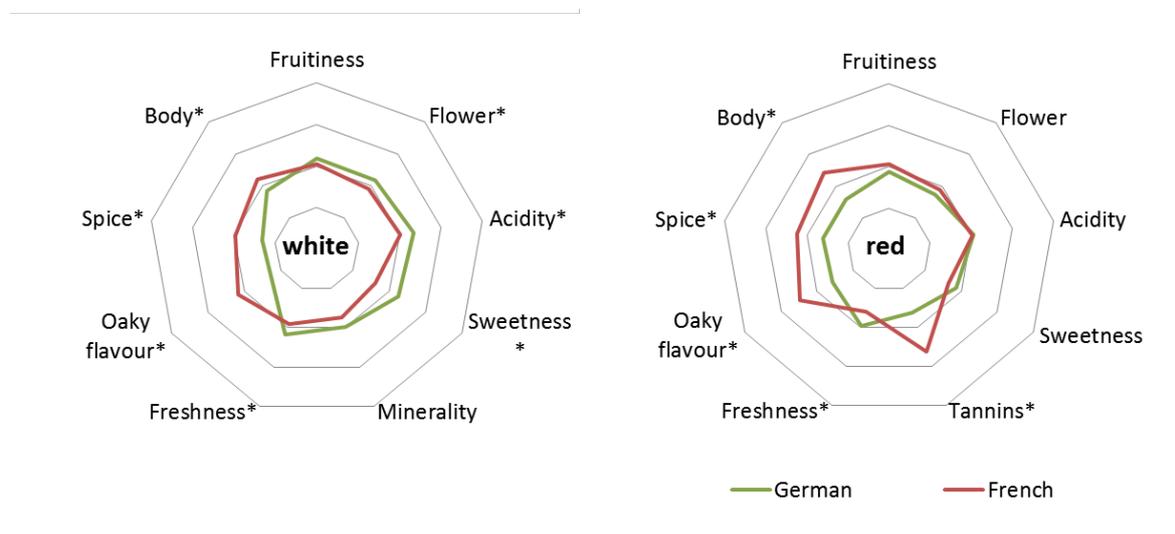


Figure 2 Preferred channels to obtain German wine information

Figure 2 shows the information channels that the respondents expected to gain general and German wine information. When they need general wine information, they preferentially turn to on-line sources but when they are looking for specifically German wine information, they expected to find it on wine magazines and books in priority, or wine fairs, German wine tastings or a training course where it is more certain to find German wines or German wine experts.

3.2 Perception of German wines

The respondents were asked to use Just About Right (JAR) five-point scale to evaluate the memorized sensorial attributes of German white, French white, German red and French red wines separately. Then the results of German and French wine were put together to compare.



*significantly difference exists between German and French wine ($P < 0.05$)

Figure 3 JAR evaluation on the sensorial attributes of German and French wine

Figure 3 indicates that generally, French white wine was close to respondents' "right" standard in nearly all sensorial aspects. German white wine has too much fruitiness, floral flavour, acidity, sweetness and freshness but too little oaky flavour, spice and body. For red wine, neither German red nor French red is close to the respondents "right" line, especially in the aspects of body, spice, oaky flavour and tannins.

3.3 Satisfaction of German wines

In the quantitative survey, among the total 47 respondents, 43 of them claimed that they had brought/sold German wines before. These respondents continued the satisfaction test of German wines that they brought/sold. The respondents valued the satisfaction and importance of a series of attributes using a five-point scale from very dissatisfying/very unimportant (1) to very satisfying/very important (5). The attributes are located on a two-dimensional map as Figure 4. The red dots highlight the attributes which are not satisfying (mean between -0.25 and 0.25 on x-axis) but important (mean above 0.25 on y-axis).

"Support from the German wine supplier" was very important but with the least satisfaction. "Promotion of the wine image by the country" and "popularity of German wine" were not so satisfying either. Besides, German wines were not so profitable from the wine trade's point of view. On contrary, the quality of German wines performed well in the satisfaction test. Other items like bottle design, pairing with Chinese food and variety were satisfying but with lower importance. Cost, label design and packaging also needed to be improved.

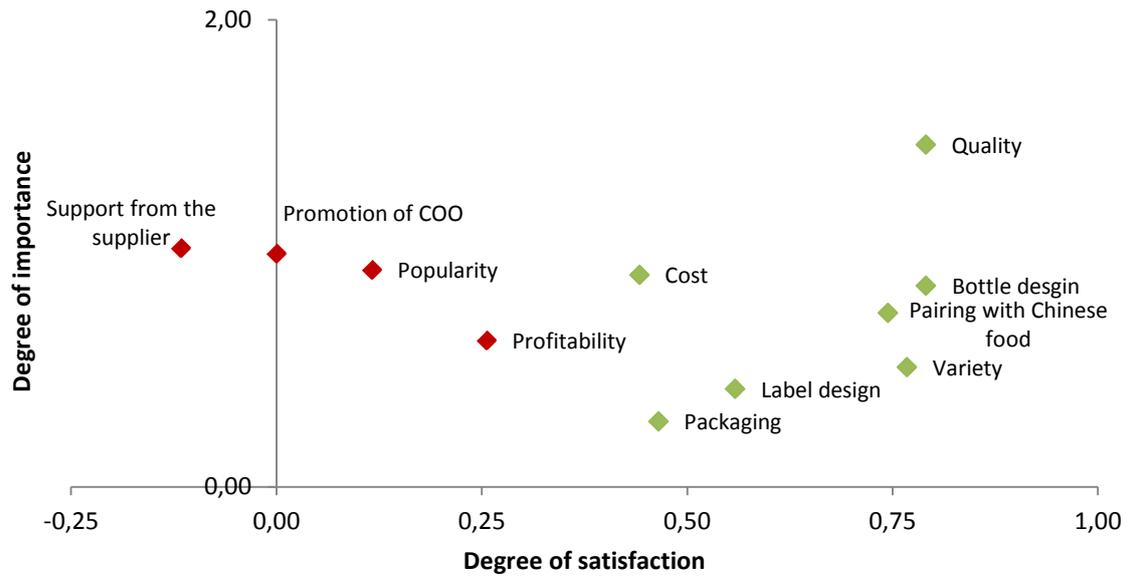


Figure 4 Satisfaction test of German wine

3.4 Chances and Challenges

Table 3 records the main arguments of the opportunities and challenges of German wine. Riesling and Sekt are the ground-breaking points. Riesling is already well-known among the opinion leaders and it requires further push to expand its reputation in China market. Low price Sekt is favoured by wine merchants since its freshness and easy drinking features make it friendly accepted by those who just start drinking wine or young people with the existing celebration and happy image from Champagne. With the growing Chinese economy, people are more likely to afford German wine. Unlike wines from other COOs, the market share of German wines has maintained around 1-2% for the past years, suggesting German wine sector grew steadily and synchronously with the total China wine market. This rational growth will continue, predicted by interviewees.

Table 3 Arguments of the opportunities and challenges of German wine

Main opinions	
Chances	Sekt has chance among the young generation; Riesling is getting popular, especially among the young; increasing disposable income boost the sales of German wine; a promising sophisticated wine market is arriving; the annual growth of German wine has been rational and will continue.
Challenges	lack of promotion of the grand image of the country; low recognition; the uniqueness of German wine is not well expressed; low production risk at satisfying the big market;

However, interviewees kept repeating the challenge of low recognition of German wine. One of them explained that “there is no doubt that German wines are with good quality. But to pay the same price, the consumers are more intended to go for well-known brand or COO. Recognition and reputation make the combination of high quality and high price accepted”. Therefore, without the possibility to

lower the price, German wine needs to speak out louder for its good quality. Interviewees required more promotion of German wines by the nation in the future. One of the interviewees was worried about the limitation of the low production which might ruin a succeed brand if they are not able to reach the demand continuously. But another interviewee argued that the consumers need to be informed or educated the relationship between quality and quantity. The promising mature wine atmosphere in the future will reduce this concern.

4 DISCUSSION

4.1 Discussion and conclusion

Chinese consumers have very low awareness of German wines, even the wine professionals defined in this research. Their knowledge about German wines including grape variety, wine region, brands is limited by what are available in the market. A market share of 0.3% means it is rare to find German wines in China. Germany, as a COO, doesn't immediately recall consumers' reflection of wine. In short, Germany is not a well-known wine COO.

Chinese consumers prefer obtaining German wine information through wine related printed material to searching on-line sources which is the most popular way to gain general wine information. The reason behind might be that wine press and wine fairs present authoritative German wine information in a theoretical and systematic way and wine tastings provides direct perception of the products. This kind of stereo information cannot be provided by internet or a casual visit in a wine shop where there is probably no German wines presenting.

The sensorial evaluation of German wines was comparatively far away from the "right" taste preference of Chinese consumers. However, this "right" line may be formed by French wines and Chinese wines since they occupy over 80% of the total China market share. When the market is poured in more types of wine, consumers' taste preference may change.

The main problems that German wines are facing were the low support from both wineries and Wines of Germany. Low promotion and low availability made German wines receive less popularity. Cost and packaging need to be improved as well. German wines have maintained a small but stable market share for the past decade. Riesling is getting popular in China and Sekt is favoured by the young. With the arriving mature market and the independence of the young generation, people are more willing to try new things. In conclusion, wines of Germany are facing a positive future.

As seen from market statistics and the results, China wine market is marching into a more stable era. Marketers from the less-known COOs might have an initial impression of the future Chinese wine consumers through these opinion leaders' ideas.

4.2 Limitations and future study

In this research, it only took the example of wines of Germany. It is not representative enough for the general less-known COO. Conduct the same research of other COOs who occupy small market share, such as Portugal, South Africa and Argentina then make a cross comparison with the results to conclude the characteristics of less-known COO.

The sample sizes for both qualitative research and quantitative research are not enough for validation from a statistical point of view. However, the interviewees and the survey respondents are not randomly picked consumers, indeed they are defined as opinion leaders, which makes the obtained results more representative than examining just end consumers.

In this paper, the data from quantitative survey was broken down into different regions and it showed difference exists. However this part of the analysis was not included in the result of the research because the sample size in this research was not big enough and the samples from different regions were not even. Anyway, diversities within regional markets in China should be taken into account in the future studies.

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Perception of wine labels by Hong Kong Chinese consumers

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Abstract

Purpose

The Hong Kong wine consumers are faced with a “demanding and arduous” task when choosing a bottle of wine from the thousands of brands available on the retail shelves. Apart from the wine intrinsic factors the extrinsic factors are also important in choosing a bottle of wine. This research aims to examine Hong Kong Chinese consumers in their perception of wine label and how wine labels affect consumers purchasing decision and the attributes they look for on a wine label.

Methodology

The first stage of the study was face to face interviews of 20 respondents in a major retail outlet of Hong Kong. Then an online survey was used with specific questions on their preferences on attributes about their buying experience, and the use of visual labels pictures to rate importance. Fifty nine valid questionnaires were collected from Hong Kong Chinese respondents.

Findings

The results suggest that Hong Kong Chinese wine consumers would look for top three mostly searched attributes the origin of the wine, grape variety and food and wine pairing information. A traditional label design with the image of a château is favored over modern and contemporary wine labels. The yellow color was found to be the most preferred and wines of French origin is mostly preferred for formal occasions while wines from Italy and Australia are chosen for less formal ones.

Practical implications

The findings will be useful for wineries wishing to enter the Hong Kong market, wine label designers for developing labels, to target easily the Hong Kong wine consumers, and better understand the consumers on how they assess alternatives among their choice process.

Key words: Hong Kong wine market, Chinese wine consumers, wine label, extrinsic wine attributes

1. INTRODUCTION

Wine consumption had been established over many centuries. It dated back to the ancient time where wine had been propagated from its origin to different parts of the world through merchants and wars. Coming to recent centuries, with the changes in the global business picture, leading to globalization of wine, the consumption of wine has been revolutionized. The global economic picture is also reshaping, with a shift in economic power from the matured markets to emerging markets, the move is by far an impact to the consuming flow. The growing magnitude of emerging markets such as China, has made every nation to turn their eyes onto it and to have a share. According to International Monetary Fund data presented in 2010, China's significance in the world economy has four times increased from 1995 to 2010 (Ahearn R.J., 2011). It is predicted by the World Bank in 2011, that the growth in emerging markets (China, India, Brazil, Russia and Indonesia) would be double of the projected growth rate of the advanced countries (such as United States, Europe) over 2011 to 2025.

Lifestyle changes coupled with the aid of the Hong Kong government on the duty tax exemption on wine in 2008 to target Hong Kong transformation as a wine hub, have led to the explosion of wine consumption per capita by 144 percent from 2006 to 2009 (Wine Institute, 2010a,b) and an average per capita consumption of 5 liters in 2011, ranking as first place in Asian's per capita consumption, before Japan (2.4 liters) and China (1.3 liters) (Accidental Travel Writer, 2012). With a provisional estimate of population, it is at 7.184 million by mid-2013 (Census and Statistics Department, 2013), Hong Kong is the third largest wine consuming market in Asia with China (first largest) and Japan (second largest).

With the abolishment of wine duty tax in Hong Kong in 2008, the import of wine has surged more than 80 percent in the following year (HKTDC, 2013). Just in the first quarter of 2013, from January to March, a total import of HK\$ 2,042 million (US\$ 263.48 million) in value term and 12.24 million of liters in volume terms are imported into Hong Kong. Hong Kong is a non-grape growing country where only two wineries are making wine in Hong Kong where they are not exporting but only for domestic consumption. The re-export is mainly to Mainland China and some neighboring Asia-Pacific countries.

Wine consumption in Hong Kong is very much related to dining, socializing and celebrating with friends, colleagues and family, at home or outside in public venues such as restaurants and bars. Wine is mainly consumed with food. Western food is a popular companion in pairing with wine. Chinese food is also pairing with wine of lesser popularity but with a growing trend.

Hong Kong being an ex-British colony has a mix of Chinese and Western cultural influences.

The population comprises of 93 percent of Chinese, about 1 percent of Europeans, 0.2 percent of Americans, 0.2 percent of Australians and 5.6 percent of other Asians (Census and Statistics Department, 2013). The wine consumers in Hong Kong would therefore be more local Chinese who are not new to western culinary and beverage consumptions, and some expatriates of other ethnicities.

1.2 Consumers' Assessment of Wine Information

Hong Kong Chinese consumers are very much opened to western and non-Chinese cultures. However, wine industry is a complex one with its many accreditations on the origin side (for example Appellation Contrôlée in France), it would be difficult for an average Chinese Hong Kong wine consumer to have full knowledge unless wine education is in force. Despite more and more wine appreciation classes are organized in Hong Kong, the percentage of consumers who really is educated with this knowledge would not be large. For an average consumer, the difficulty would be how to read the information given from a bottle of wine and to come to a final purchasing decision. According to Mueller and Szolnoki (2010), packaging and brand evaluation were the strongest drivers for informed liking of a wine. A lot of consumers are using implicit logical sequence to assess information available to them from a wide selection of wine (Mueller et al., 2009), within limited time frame to reduce any perceived purchasing risk. According to Mueller et al. (2009), the wine consumer would enter into a "search" of information to induce the hidden "experience" and "credence" aspect when purchasing a bottle of wine.

It is crucial to understand how the Hong Kong Chinese consumers perceive wine and what their considerations are before purchase. In the research conducted by Liu and Murphy (2007), French wines were considered of higher quality and better awareness than Australian wines. According to Somogyi et al. (2011), it is noticed that "reading labels" appeared only six times which represents less than half of wine in relation to health. Hong Kong has a Chinese cultural background. Its exposure to western culture influence impacts somehow the evaluation process of the consumers, the types of information they are looking for on the label and what they expect.

Many researches have been done on countries where wine consumption is part of the consumer's lifestyle, such as France (Celhay and Passebois, 2011), Italy (Rocchi and Stefani, 2005) and the United States (Sherman and Tuten, 2011; Boudreaux and Palmer, 2007). But there is no research done on the extent in which wine labels affect Hong Kong wine consumer's purchasing choice and decision on Old and New World labels, where the market is overloading with a multitude of wines from all origins. With the economic shift to Asian countries, more researches were carried out in big Chinese cities such as Beijing (Yu et al., 2009) and Shanghai (Balestrini and Gamble, 2006; Hu et al., 2008). Very few researches were

done on Hong Kong due to its insignificance and small market size. However, since the removal of all wine duties since February 2008, Hong Kong has a surge in wine import and consumption. A flood of wine from all origins into Hong Kong, has somehow alter the consumer's consumption behavior. Despite the growing wine consumption, limited studies have been digging into this piece of small land as Hong Kong.

Most of the labels are designed by non-Chinese people. We do not know if they have some understanding of the Chinese culture or whether the bottle of wine would be someday selling in a Chinese culture country. The design including the text and mention on the label, should be, by assumption, not with Chinese consumers in mind at the time of the design concept. Tootelian and Ross (2000) mentioned that consumers believed the information on the labels to reflect the true meaning such as the origin, grape variety, to base their selection of purchase pattern. In a research done by Liu et al. (2008), they introduced the effect of language (monolingual or bilingual) labeling on Chinese consumers and their awareness on the domestic and foreign wines. Bilingual labeling had positive effect on the country-of-origin on imported wines especially on French wines but not Australian wines.

The purpose of this study is to attempt to identify the elements that Hong Kong Chinese consumers consider in their wine purchase process. The next sections describe how the wine information search has linked to consumers would be further investigated using both qualitative and quantitative research methods in two phases to reveal the attributes, designs and colors that are most preferred and of importance to the Hong Kong Chinese consumers. The findings of this study would help wine label designers and wine marketer practitioners to draw their attentions and awareness onto the vital elements a consumer would look at.

2. METHODOLOGY

First a qualitative research was conducted. The aim was to gather attributes that influence wine consumers in purchasing wine. This stage was a face to face interview and to help to identify patterns, themes or features in a wider prospect.

In the first phase of this research, a permission was obtained from a leading supermarket chain store having many outlets in all parts of Hong Kong, to interview its customers in their wine section. It was conducted in the form of a face to face interview of about 5 minutes each where respondents who bought wine on that day would be asked to answer 5 short questions. The subjects were asked about the reasons why they chose the particular wine (price, drank earlier, recommended by family or friends, quality, brand name, vintage, region, gift, promotion). The second question was about the information they were looking for on the label (brand name, vintage year, varietal, producing region, château image). Regarding the label image and information respondents consider the information on the label as useful

(varietal, producing region) and mentioned that traditional label or brand name to be useful for them. Subjects were also asked about the occasions they buying wine; most of them purchased wine on a regular basis, some of them seem to buy wine only for special occasions or during promotions. The interviews were conducted on two consecutive days in the weekend, a Saturday afternoon and a Sunday morning where a high rate of purchase occurrence would take place. The choice of outlets was in two large local residential districts' malls, Kowloon Tong and Tseung Kwan O. The chosen outlets are located in Festival Walk, an upmarket major landmark in Kowloon Tong, and East Point City, a large private housing estate and shopping mall in Tseung Kwan O.

The second stage was a structured questionnaire through online survey. The target population of this study consisted of all Hong Kong population of Chinese origin only of legal drinking age of 18 years old or above, of male and female and having purchased at least a bottle of wine in the past 3 months. The questionnaire was distributed by email to a convenience sample of initial list of thirty five friends' email which was then be requested to cascade to their friends.

Prior to the launch on the second phase, the questionnaire was translated from English to Chinese and vice versa to ensure accuracy in the meaning. Then it was pre-tested using a convenience sample of ten respondents so as to ensure the smoothness and consistency in the questionnaire setting before it was finally online.

Based on literature reviews and from the interviews in the first phase, seven attributes mentioned on the label were selected for the use in the online survey. They are: brand, grape varietal, vintage year, origin of the wine, alcohol content, label color and label design. They represent the most direct attributes that influence on the decision of purchase and as well as part of the information search that often appear.

- Brand name plays a great influence in the decision process as it is the first element that the consumer will see on the label (Harper, 2010).
- Grape Variety: Most New World countries simplified the labeling with simply the mention of the grape varietal and it appeared that such simple labels are preferred by a lot of consumers (Harper, 2010).
- Vintage year: consumers would be willing to memorize the years of good harvest. It is ranked second most important attribute when purchasing wine in a research done by Barber et al. (2006).
- Origin of the wine is regarded as one of the most important attributes when purchasing wine (Barber et al., 2006). The country of origin or the producing region of the wine, is often used as an indicator of quality (Sutanonpaiboon and Atkin, 2012).

- Alcohol content is a health concern by many drinkers with nowadays healthy eating and drinking habits campaigns. It is a mandatory mention on the wine labels as per the wine labeling laws.
- Label color is perceived differently in each culture. Hong Kong being a Chinese base culture has a strong influence of Chinese culture, with somehow diluted by Western cultures. It is interesting to look into the effect of colors on the consumer's choice, whether any impact would be perceived (Kommonen, 2011). The choices of color for this research would have significant meaning in the Chinese culture and they are red, yellow, black and white.
- Label design plays a certain role on Hong Kong Chinese consumers. As pointed out by Sherman and Tuten (2011), the label design served as extrinsic cue in the perception of wine. Would a French wine label with a château has more influence on Hong Kong Chinese consumers than a label showing a daisy flower but still from France? It would be interesting to see what type of image or design characteristics do Hong Kong Chinese consumers relate each country's wine.

One hundred questionnaires were collected. The sampling frame was a convenience sample from a private distribution list of initial thirty five friends' email, to be requested to further cascade to more friends. The response rate was therefore 68%. Of the valid questionnaires, 59 (87%) were from Hong Kong Chinese and 9 (13%) were from other origins respondents.

Table 1 provides a socio-demographics profile of the Hong Kong Chinese respondents who participated in the survey. The respondents' profiles matches somehow with the latest Hong Kong population statistics in terms of gender, age groups, marital status, education level and occupation.

3. FINDINGS

3.1 Importance of Attributes

Respondents were asked to indicate the importance of seven attributes, on a scale of four from "extremely important" (4) to "not at all important" (1), by indicating one choice for each attribute. The results depicted in Figure 1 show the mean scores of the top three attributes of importance to Hong Kong Chinese respondents were "origin of wine" (mean=3.085), "grape variety" (mean=2.746) and "food and wine pairing" (mean=2.542). The "origin of wine" was significantly different from "grape variety" ($p < 0.05$), and "food and wine pairing". However, "grape variety" and "food and wine pairing" are not significantly different. This shows that most of the respondents consider "origin of wine" as more important than the other attributes which are less important in their considerations, while "alcohol content" is the least important for the respondents. On the origin selection, France was chosen by most respondents with highest percentage of 27% ($n=110$) on the overall,

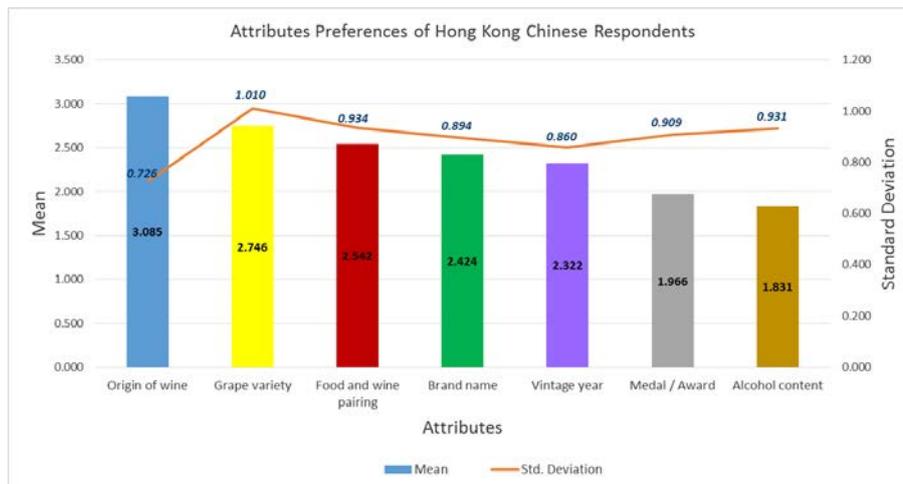
mainly for the purpose of business dinner (highest at 37%, n=46) and special occasion or gift (highest at 39%, n=37). Australian origin was highest and most preferred for family gathering (17%, n=32).

Table 1: Demographic of Hong Kong Chinese Respondents ($n=59$)

	Frequency	Percent
<u>Gender</u>		
Male	27	46
Female	32	54
<u>Age</u>		
18-34	26	44
35-44	18	31
Over 44	15	25
<u>Marital status</u>		
Married	27	46
Single	32	54
<u>Education</u>		
Secondary school	9	15
Academic	50	85
<u>Employment</u>		
Financial service industry	7	12
Tourism industry	1	2
Trading and logistic industry	9	15
Professional services or producing industry	20	34
Others	16	27
Unemployed	6	10

The results are in accordance with the study done by Thomas and Pickering (2003) where respondents showed preferences of “grape variety”, “region” and “cellaring information” (type of knowledge to acquire) to be of importance to be put on the front label. Also in a study done by Cohen (2009) on Australian wine drinkers to rate thirteen wine attributes on wine selection, the attributes “grape variety” and “origin of wine”, were rated third and fourth of importance, but “matching with food” (same as “food and wine pairing”) was rated on eighth position which is not the case in these findings.

Figure 1: Importance of Attributes rated by Hong Kong Chinese respondents (n=59)



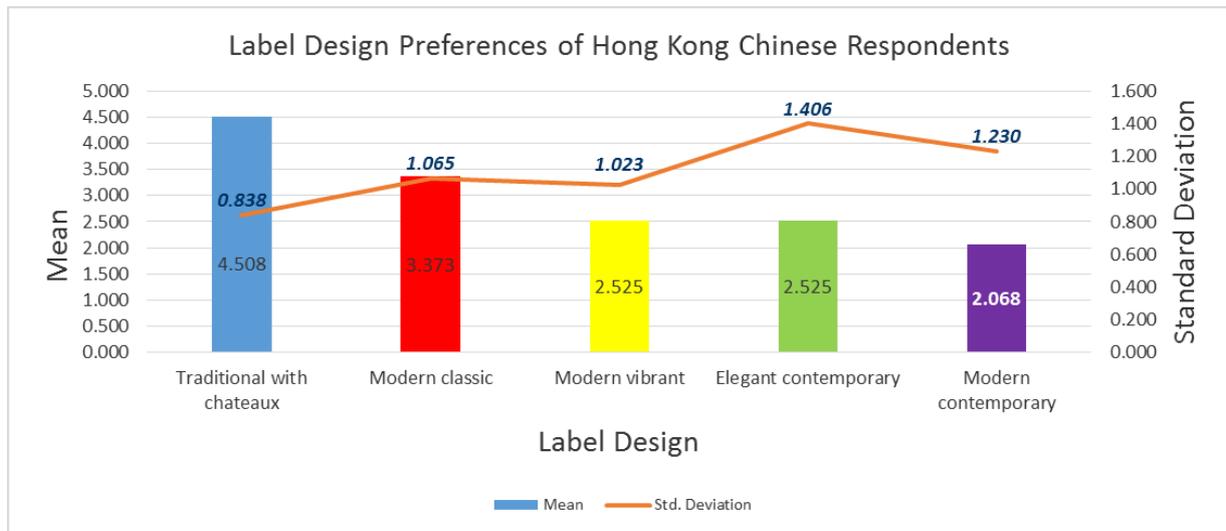
Brand name is found to be the fourth on the importance which is different from the a previous study done by Mueller and Szolnoki (2010) where brand was found to be one of the strongest drivers for informed liking.

No significant differences were found between male and female. Significant difference ($p < 0.01$) was found between the 35-44 years old and 45 years and older for “food and wine pairing”, as the older people give more importance to this attribute, maybe because that they are more experienced with wine.

3.2 Preference on Label Design

Respondents were asked to rate on a scale of five, from 5 being “most preferred” to 1 being “least preferred”, their preferences on 5 label designs shown in the format of pictures on the survey. Results are summarized in the Figure 2 which shows the label design with a “traditional with château” has the most significance with highest mean of 4.508 where the standard deviation is 0.838 which is only 18.59% of the mean, the lowest standard deviation in the list among all. Then comes the “modern classic” with mean of 3.373 in a second position and follows at third position by “modern vibrant” and “elegant contemporary”, which are both with same mean of 2.525. The findings are in accordance with previous researches done by Celhay and Passebois (2011) and Sherman and Tuten (2011), where wines from France with visual codes were recorded and ranked according to the degree of perceived typicality representing a given category in our mind and grouping views in the overall perception of the wine quality. As per tradition, a château is a representation of France thus a higher degree of importance is seen from the findings.

Figure 2: Label Design rated by Hong Kong Chinese respondents (n=59)



Significant differences were observed among the labels. Traditional with château label was significantly preferred ($p < 0.001$) followed by the modern classic label.

Comparing the preference of label design for gender and for age groups show that all gender and age groups seem to have a tendency on preference for a label “traditional with château”. It is also observed that older respondents of 45 years old and more, give much attention and preference on traditional and classical label designs. This might be due to the long standing knowledge in wine. It is noticed from the findings that younger generation from 18 years old to 44 years old, is more inclined to traditional label with a château but also to modern and contemporary ones.

3.3 Preference on Label Color

Respondents were asked to rate on a scale of four, from 1 “worst” to 4 “best”, their preferences on 4 labels based on their color dominance shown in the format of pictures. Findings as shown on the Table 2, exhibit the preferences of the respondents on the yellow color dominant label (mean=2.847, SD=1.031). It has the highest mean and the lowest standard deviation. This denotes that the yellow color dominant is of significant difference from the other label colors ($p < 0.05$). It might be due to the fact that the color yellow is very close to the color gold which is considered as wealth in the Chinese culture (Kommonen, 2011). Surprisingly, white color dominant label (mean=2.492, SD=1.150) comes second in the list of preference, while red color dominant label (mean=2.271, SD=1.201) is in the last position in the preferred list. These findings are somehow contrary to the standard Chinese culture belief and preferences in color (Kommonen, 2011; Liu and Murphy, 2007).

Table 2: Label color preference by Hong Kong Chinese respondents ($n=59$)

Label color	Mean	Standard Deviation
Yellow	2.847	1.031
White	2.492	1.150
Black	2.390	1.034
Red	2.271	1.201

Exploring within the gender and the age groups, similar pattern of preference was seen and in accordance with the direction of preferences in label color as seen previously.

4. DISCUSSION

This paper presents the study on Hong Kong Chinese consumers, having bought at least one bottle of wine in the last three months, by examining their attitudes towards information search on a wine label such as attributes, label design and color preferences, price, consumption occasion and type of wine purchased.

From the findings of this research, wineries or brand owner or wine label designer or wine marketer, who are to enter the Hong Kong wine market with the Hong Kong Chinese wine drinkers in mind, should provide clearly and concisely, what the wine drinkers consider as most influential attributes such as origin of the wine, grape variety and food and wine pairing suggestion. This would help to facilitate and to minimize the time in information search, which could in the end increase in sales.

If looking at the importance of origin of the wine from this research, wine label designers have to bear in mind to directly convey the message of the origin of the wine which could comprise of the country of origin, or the region or the terroir of the wine. Such specific details would help tremendously the wine consumers to pick precisely according to their preferences whether it is a matter of taste, emotional, geographical, and so on. Furthermore it would help to promote that country or region of origin of the wine in a better way as an easier entry point into a market.

Another upcoming trend in the Hong Kong Chinese wine consumer's preference is the information about food and wine pairing on the wine label. It was not of importance in the past few years as it was barely mentioned in the past literatures, but with the popularity of wine appreciation courses and wine tasting events, where Hong Kong carries the reputable

label of “gourmet paradise”, wine cannot go without food. And such piece of information of food and wine pairing does not exist if there is lack of space on the wine label or in the case of one front label only. However, from this research, it is revealed that there is such a request which should not be ignored by the wine label designer or wine marketer or winery owner. For adventurous wine consumers looking for new taste or wine enthusiasts with none to basic wine knowledge, such piece of information would be of great help in guiding their selection which could be a way to lead to repeat purchase or referrals to friends and families through word-of-mouth effect.

Furthermore, attractive and easy to understand wine label color and designs would help the information search. Combination of elements from the most influential wine label designs and colors should be used according to the product targeted positioning such as purchasing timing, consumption occasion and targeted consumer’s groups. If a traditional label with a château would attract more customers, then a wise use of such element to incorporate into the label design would help into the sales. Color has somehow a meaning in the Hong Kong Chinese context. It would be good to use wisely where appropriate as per the target occasion or festive season or types of consumers to promote sales. For example a pink color dominant wine label would be best suited for a launch in the Valentine period rather than in the Mid-Autumn Festival.

French wine has already established its special place in the preference of the Hong Kong Chinese wine drinkers for many years. Other promising origins seeing on the rise such as Italy, Australia, Chile, South Africa and the United States, should be promoted as well to offer variety to the consumers with more tasting events and marketing supports. Companies should promote wisely these rising origins according to the consumption occasions so as to better target the right consumers.

One major element to successfully market a bottle of wine, is to thoroughly understand the targeted market and its consumer’s segment. Each market and each segment differ somehow in their perceptions of things. The key elements in which they are looking at would help tremendously the winery or brand owner or marketer, to achieve successful sales results and to sustain in the long run.

4.1 Conclusion and Managerial Implication

This paper was aimed at exploring Hong Kong Chinese consumer’s predilection in their search of information on a wine label perception, on how wine labels affect Hong Kong Chinese consumers purchasing decision and the attributes they look for on a wine label. The results of this study confirm that Hong Kong Chinese consumers in the sample of the study are affected by the wine label by looking for extrinsic factors such as but not limited to, the

origin of the wine, the grape variety, and the food and wine pairing information as most important, as well as label design and color in assisting them in their purchasing decision, where a possible lack of knowledge about the wine is still present (Hu et al., 2008). Surprisingly brand name was not the top three attributes that was of importance in this survey and contrary to the first phase ground work data collection and other previous literatures. Empirical evidence from this exploratory survey on Hong Kong Chinese consumers has exposed some changes in consumer's preferences shift which should not be ignored. It should not be underestimated the power of information presented on the wine label which could ensure the overall interactions with the buyer in the process.

This study is of particular importance about the Hong Kong Chinese population due to its niche nature, to wineries, wine companies, wine label designers or wine marketers practitioners. Having said that Hong Kong being a formal British colony, it has both the influences of the Chinese culture as well as the Western's where the freedom of information is unquestionable. However the findings echo with Hu et al. (2008), to reveal some salient features of Hong Kong Chinese consumers' buying behavior that are associated with the Chinese culture, particularly the "face value" which is reflected in the selection of wine origin. This piece of information is valuable to French wineries or wine companies or wine label designer may be to include a French element in the wine label to attract consumer's attention.

4.2 Limitations and Future Researches

The present study has several limitations and requires further researches. First, the respondents comprise of a convenience sample of 100 respondents where 59 are Hong Kong Chinese. The sample size is therefore small and limited which prevented any segmentation. Future research with a larger sample size and longer time frame would be preferred to prevent a limited representation of the sample population, to make the results more generalized. Secondly, the selections of labels for the questions related to label design and label color dominance, are of limitations and might not be the most precise interpretation. These selections should have restricted to the types shown and not a generalization which could have limited and influenced the respondents' perception with bias. A wider selections and combinations from different countries and style, would be preferred to be more homogenous and generalized in representation. Thirdly, some of the questions are of different scale (four and five point Likert scale) which showed somehow difficulties in the final analysis to derive very accurate analysis.

One last point to mention but not the least, the selection of attributes is of limitation which could have restricted the respondents in their ranking. Attributes such as vineyard, percentage of blend, cellaring information to name a few, could be considered in future researches.

Future researches should include how other possible factors such as the education levels, the level of wine knowledge and wine involvement, would influence their perception of attributes importance. Possibly more emphasis on the distinctive characteristics of the bottle of wine in relation to the purchase intent and choice, to enable marketing practitioners and wine label designers to manage and to depict the perceived value of the product such as quality, loyalty, satisfaction and so on. Perhaps more discovery of additional upcoming variables of importance in the course of the purchase decision process such as the influence of other external extrinsic cues and information sources (example internet) should be investigated.

A comparative study comprising of the three major territories of Hong Kong (Hong Kong Island, Kowloon and New Territories) was not possible due to the small sample size, but it would be of significant interest in order to collect consumers' behavior for better placement of products to improve sales and marketability within Hong Kong. Finally, a comparative study of larger budget, of bigger picture involving more major cities of China such as Guangzhou, Shenzhen, Shanghai, Chengdu and Beijing, would be of significant interest so as to compare with other big cities located in the different part of China, which comprise of different Chinese wine consumer's behaviors with a good geographical spread from the North to the South of China in a larger scale.

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Wine consumption in China: Cultural globalization with Regional Differences

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◦Purpose. The aim is to explore the perception of foreign wines in China as Western products. This paper assumes that wine is concerned by the indigenization of cultural globalization according to regional ideologies and practices.

◦Design/methodology/approach. Our study focuses on foreign wines and Chinese market. We worked on a qualitative study of 40 Chinese consumers. Interviews were carried out in Chinese and translated into English by a Chinese professor. We focus on both local and foreign wine perception and we decided to compare consumers from Shanghai with those from Beijing.

◦Findings: This study highlights the preference for foreign wines over local wines and its regional reasons. We show that foreign wines have a substantial advantage compared with local wines both in Beijing and Shanghai. However Beijing consumers explain this more by cultural and social reasons, whilst consumers from Shanghai focus more on intrinsic quality and the promotion of brands.

◦Practical implications: The results show the enigma of the Chinese wine market. Most in the wine industry will agree that China is a ripe market but which requires some level of wine acculturation to reach its full potential. Western wine producers have spent a lot of money on educating Chinese consumers about their products and will be required to do so for many years to come. To limit this costly operation, wine producers have to consider the Chinese market as several markets and select regions very carefully.

Key words: Local culture, Chinese Wine Market, Indigenizing.

1. INTRODUCTION

The wine industry has become increasingly globalized over the last decade. This movement is quite old (Anderson et al., 2003) but in 2012 concerned more than 40% of world wine production, according to the OIV. Exports and imports mainly originate in European and American wine-producing countries. However the strongest development in this trend is now exports from Europe to more and more new markets. Among them, China should become a major market in the next few years. Indeed, according to the OIV, wine consumption per person grew in China by 22.4% between 2007 and 2011 and the latest statistics from China's Customs Authority show that total bottled grape wine imports (less than 2 liters per bottle) showed a year-on-year growth of 60.2% in 2011.

This trend makes it important to investigate Chinese perceptions of foreign wines through the interaction between cultural globalization and local ideologies and practices. As explained by Hergaty and O'Mahony (2001), food has more than a utilitarian aspect and usually reflects the culture where the ingredients are combined and cooked. For Cook and Crang (1996), wine is among the best example of this combination of production and culture, being a food that can reflect the local culture of its region of origin. Moreover, for Hall et al. (1997), the elements of culture should not be ignored in wine selection. Due to the principal origins of imported wines, Chinese consumers are confronted by Western culture.

In this context, Chinese wine consumers seem to be in the situation of *Indigenization* as defined by Üstüner and Holt (2009). For these authors, the construction of national identity is not an obstacle to the cultural dominance of the West. Rather, it gives status to the middle and upper class of new industrialized countries. Indeed, due to rapid economic growth, personal income has increased significantly in China and a new wealthy group known as the "new rich" has emerged in society (Wu, 1997). With the rise of personal income, the Chinese middle and upper classes "demand more convenience and quality" (Hingley et al., 2009, p. 46), show more interest in brands (Kim, Song, and Byun 2009) and purchase more luxury products (Blackwell, Miniard, & Engel, 2001). These consumption patterns explain the flow of foreign products into China, including wines (Hu et al., 2008). In this context, new Chinese consumers perceive wine - especially foreign wines- as a status symbol that contributes to social standing (Yu et al., 2009).

Nevertheless, this position seems quite restrictive. China is made up of multiple heterogeneous regional markets (Schmitt, 1997, 1999; Cui, 1999; Jones et al., 2003). Ralston et al. (1996) and Veeck et al., (2007) have revealed that these regional markets present differences, such as history, location, economic development, education and technology. Therefore, in any attempt to explore Chinese markets and Chinese consumers, regional variations cannot be disregarded (Sin and Ho, 2001). This paper proposes to explore two issues: are there local differences in the way Western culture is indigenized in China; and if so what might be the importance of this for marketing strategies?

2. METHOD

This research used qualitative data collection processes, which are the best for exploratory projects (Calder, 1977). The primary method of data-collection was a semi-structured interview, a format adopted to give some data continuity between interviewees, but which would also offer flexibility – allowing for other, unexpected information and ideas to feed into the data obtained.

The interviews were carried out in Chinese and translate into English by a Chinese member of the research team. The interviews were logged in detailed field notes, and were also tape recorded. During and following the data collection stage the researchers met regularly to evaluate the process. Data analysis was an on-going and cross-comparative process (Janiesick, 1994), although different researchers took responsibility for various aspects of the project.

Forty interviews were arranged for this study in Beijing and Shanghai which are the two most important centers for the Chinese wine market (Angelo, 2012).

20 of the interviewees lived in Shanghai and 20 in Beijing. The sample was made up of consumers who displayed similar characteristics to Chinese wine consumption patterns previously defined by Li and al. (2011) and Angelo (2012):

- (1) They belong to the middle and upper classes.
- (2) They consume a small quantity of wine per year.
- (3) They live in Beijing or Shanghai.

Table 1. Interviewee profiles

ID-Beijing	Gender	Age	Occupation	ID-Shanghai	Gender	Age	Occupation
B1	F	27	Project Executive	S1	F	40	Doctor
B2	M	32	IT support director	S2	F	32	Administrative assistant
B3	M	31	Project Executive	S3	F	39	Marketing Manager
B4	M	29	Staff member	S4	F	36	CEO
B5	M	29	Managing director	S5	F	24	Staff member
B6	M	29	Sales Director	S6	F	26	Product Manager
B7	F	29	Quality Manager	S7	M	40	Marketing Manager
B8	M	45	Department manager	S8	M	26	Staff member
B9	F	45	Department manager	S9	F	30	Project Executive
B10	M	39	Marketing Manager	S10	M	35	Deputy chief editor
B11	F	28	Project Executive	S11	M	31	Company Owner
B12	M	34	Company Owner	S12	F	27	Marketing Manager
B13	F	30	Staff member	S13	M	36	G.M
B14	M	39	Managing Director	S14	M	37	Engineer
B15	M	44	Staff member	S15	M	33	Regional head (bank)
B16	M	35	G.M	S16	F	23	Import Manager
B17	F	39	Company Owner	S17	M	33	Staff member
B18	M	35	Staff member	S18	F	32	Staff member
B19	F	38	Accountant	S19	M	26	Staff member
B20	M	36	Doctor	S20	M	25	Staff member

3. FINDINGS

Whilst in general researchers consider Chinese consumers to have poor general knowledge of wine, these results show that they have a clear understanding of what their wine preferences

are and what distinguishes Chinese wines from foreign wines. And interestingly enough, in the two cities these differences are not the same.

Foreign wines are better than Chinese wines.

The distinction between Chinese wines and foreign wines quickly appeared for interviewees. Whatever their location, they considered Chinese wines inferior to foreign wines.

First of all, the wine security seemed a major perception in both Shanghai and Beijing – “our wines do not respect the rules and many of them are adulterated” – “Chinese wineries use cheap foreign bulk wine to fill their bottles.”

This was explained by the idea that Chinese wines use industrial production processes which pollute both the wine and the production locality: “some local wines are made using industrial methods and lead to a general pollution issue.”

In addition, our sample explained the consumption of local wines by their low price and the fact that they are easy to find – “They (Chinese wines) are produced in huge volume and have a huge network of retailers” – “There are different large set of categories of Chinese wines easy to buy.”

Conversely, foreign wines are perceived as healthier and higher in quality: “They control the production process strictly and use fewer chemical additives.” More generally, interviewees considered that foreign wines have stronger culture, personality and history.

Regional reasons for preferring foreign wines

Whatever their geographic origin, interviewees gave similar reasons for preferring foreign wines. For ten people, from both Beijing and Shanghai, foreign wines had the advantage of being from different origins. They suggested several attractive origins which make choices easier: “To choose between the numerous brands of foreign wines in the Chinese market, we should pay attention to their origins.”

However, many of the answers demonstrated that there are differences between Beijing and Shanghai.

Firstly, it seems that, unlike consumers in Beijing, the consumers in Shanghai are interested in the wine’s taste more than anything else. 12 people from Shanghai, but only six from Beijing, explained their preference for foreign wines by the taste: “most foreign wines are very pure and natural’. The Shanghainese were more concerned with the intrinsic quality: “aftertaste”, “fine and smooth.” Three of them looked for a pure wine and didn’t like those Western wines that tailor their product to Chinese palates.

Secondly, more Shanghainese (nine of them) explained the attractiveness of foreign wines by promotion than Beijingers (two of them).

Thirdly, six Beijingers, but only one Shanghainese, appreciated the cultural aspect of foreign wines. For them, foreign wines have higher cultural identity: “Foreign wines have their cultural existence.” Therefore, they preferred foreign rather than Chinese wines because the former were more steeped in culture than domestic wines.

Lastly, 12 Beijingers considered the social attributes of foreign wines to be important, but only three Shanghainese. The former used foreign wines to improve their social image and to communicate their economic wealth to the community: “in China, wine is used for communication and it can strengthen friendship.” Moreover, at least two Shanghainese considered these social attributes in a negative light: “Drinking wine can improve your image on social occasions, that’s why in China wine is more accepted by fashionable society’.

4. DISCUSSION AND CONCLUSION

These findings highlight the success of foreign wines compared with local wines in China. Whatever the city, Chinese consumers seem more confident in the quality and origins of imported wines. This confirms previous studies which observed that Chinese consumers use country-of-origin cues considerably during wine purchases (Balestrini & Gamble, 2006) giving a real advantage to the world's well-established wine regions (Zhang et al., 2013). This also shows that domestic wines are still suffering from impact on consumers of a series of adulterated wine crises (Zhang, 2005; Eves & Cheng, 2007, Bing et al 2011).

However, these findings show that the middle and upper classes in Shanghai do not choose foreign wines for the same reasons as consumers in Beijing. Beijingers are more attracted by cultural factors and social effects whilst Shanghainese pay more attention to well promoted brands and taste. Here we have a kind of regionalization of cultural globalization in the Chinese wine market. The indigenization (Üstüner and Holt, 2009) of Western culture through foreign wines is generally confirmed in Beijing, but less so in Shanghai. Foreign wines are used by middle and upper class Beijingers to give status, whilst Shanghainese tend to consume foreign wines more for their intrinsic attributes.

These local differences are not specific to the wine market. Cui and Liu (2000) noticed different degrees of recognition for foreign brands in cities like Guangzhou, Shanghai and Beijing. Similarly, Wei and Pan (1999) showed that Shanghai consumers were more interested in fashion brands than those in Beijing. Moreover Zhang et al. (2002) pointed out that consumers in Shanghai pay more attention to style, workmanship, color and brand, whilst in Beijing color is less important. Although these studies are quite old, they highlight the persistence of dissimilarities between Shanghainese and Beijingers. On the one hand, Beijing is the political power center in the North and the people of Beijing see themselves as China's political and cultural guardians (Schlevogt, 2001). In traditional Chinese culture, aspects such as the family, the concept of the 'middle way', guanxi, harmony, face and collectivism influence the consumer's motivation and behavior (Lu, 2002). This is confirmed in Beijing where imported products symbolize higher social status (Wang & Chen, 2004)

On the other hand, Shanghai is considered as the dominant commercial center. Traditional culture is less emphasized in the South and the Shanghainese are even accused by northern Chinese of having destroyed traditional structures based on family ties (Schlevogt, 2001)., Shanghai is also becoming the seedbed of a new middle-class society. Whilst not being the richest group in society, this class is well educated and may be the most loyal consumers of foreign products (Safier 2001).

To sum up then, selling wine in Beijing is not the same as selling it in Shanghai. This point is important to understand both in terms of the final consumers and of the importers who need to develop their business. They have to bear in mind the cultural gap between the North and the South and to observe its evolution.

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Testing lexical equivalences for Chinese consumers: Do hawthorns taste like blackberries?

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Purpose: To understand whether Chinese imported wine consumers respond to sensory descriptions using Western fruits and vegetable flavours the same way they respond to Chinese fruit and vegetable flavours.

Design/methodology/approach: Two-hundred sixty-three Chinese imported wine consumers were recruited across three major cities in China. They were divided into two groups. Each group tasted the same five red wines and one tawny port and ticked a series of generic wine descriptors as well as a list of specific fruit and vegetable flavours. The specific flavours were either western fruits and vegetables or suggested Chinese equivalents. Correspondence analysis was used to relate the descriptors to the six wines to test for equivalence or not.

Findings: The generic descriptors were linked to the same wines in both groups, showing that the groups were equivalent. Eight of the fourteen specific descriptors were linked to the same wines using the Western versus Chinese flavours showing equivalence. The other six flavours were not equivalent.

Practical implications: This research provides the first empirical evidence of what specific Chinese fruit and vegetable flavours are equivalent to the typical ones used on imported wines in China. The results give some direction to wine producers and distributors about what terms better fit with Chinese perceptions and are more likely to be useful in describing wines in China.

Key words: China, wine descriptors, wine flavours, correspondence analysis

1. Introduction and literature review

China imports 4 million hectolitres of wine for a total value of 1.58 billion US dollars, a growth of 8% and 9% respectively compared to 2011. The majority of the top 15 world wine producers expanded their exports to China in 2012 compared to 2011 (OIV, 2013). However, as a relatively new market with cultural and language issues for all imported wine producers, there is limited managerial information available and limited academic exploration of Chinese consumer behaviour to wine. Taste preferences amongst this potentially diverse market are not clear. The current available commentary rests in the domain of journalists, wine writers and, at the pinnacle of knowledge, a few Masters of Wine with an expertise in the Chinese market.

One key issue that needs investigating is the usage and impact of tasting terminology and the impact of taste descriptors on preferences. Currently, wine is most often described using the standard Western tasting terminology and the corresponding Western fruits, vegetables, spices and flavours are used to describe the smell and taste of wine. Describing a wine as tasting of blueberry is a complicated notion for even the most involved Western oenophile. How does one comprehend this taste if one has never seen or tasted a blueberry before? An exported Australian wine using passion fruit as a descriptor on a back label is potentially equally vexing. How many passion fruits grow in New York or London – key markets for Australian wine? Would providing the wine industry with culture specific terms for the Chinese market be advantageous?

A study conducted in Spain and France by Saenz-Navajas et al. (2013) on culture and wine expertise lends credence to this question, as they found that the geographic location of the respondents and the availability of the specific agricultural products in their regions impacted their ability to recognise those sensory markers. Boroditsky (2001) conducted a study with bilingual – English and Mandarin – respondents on their perception of time in the English and Mandarin language. Although not on wine, this study indicates that the structure of the language can impact how a theme is perceived. Fenko et al. (2010) explored the cross-over of sensory terms between Dutch and Russian and their interpretation. Although culturally distant from China, this study indicates that there are generalisable complexities across languages and product descriptions. Blancher et al. (2007) showed the difference in the complexity of verbalisation of the description of jellies in Vietnam and France. These studies justify the need to research whether language impacts the expectation that Chinese consumers have for wine descriptions.

Jennie Cho Lee, a Master of Wine, with a particular expertise in Asia has published a list of culture specific tasting terminology for the Chinese market (Cho Lee, 2011). This progress should be lauded. However, this has never been investigated academically nor have these terms been scientifically linked to their supposed Western equivalent or their impact on preferences. This is much more than an interesting question. The Chinese market is of tremendous value globally to the wine sector. All wine producers, distributors and sellers (on-premise, off-premise and online) are battling to succeed in this competitive market. At a more strategic level, we all need to do what we can to increase the accessibility and appreciation of wine in China. Before major investment can be made into this strategy, it is necessary to use science to validate 1) if these proposed terms are truly transferable with their Western equivalent; 2) if patterns/clusters of preference for particular wine styles can be identified; and 3) if one type of specific terms are more effective in increasing preference (likability, willingness to purchase and perceived price point).

For brevity sake, only the first two points will be addressed in this paper. Furthermore, despite conducting analysis on white, red, sparkling and dessert wines, only results from the

red and dessert wine experimentation are provided due to space constraints.

2. Sample and method

A central location hedonic liking test was conducted in three Chinese cities: Shanghai, Guangzhou, and Chengdu in August 2013. In order to qualify for the experiment, participants had to be between 18-50 years old, reside in the test cities, drink imported wine at least once per month, not be involved in the wine trade or ever have participated in a wine tasting course or any other research study in the 3 months prior to the commencement of this research.

A total of 263 respondents completed the study. A sensory research company with experience working with international clients in this field was recruited to execute the study with a member of the research team present during all wine preparation and data collection in all three Chinese cities. The data collection ran over four consecutive days in each location. The entire data collection was completed over a three-week period. Each day of data collection consisted of three sessions of approximately 75 minutes for each set of respondents. Respondents agreed to participate in two sessions, one per day over two consecutive days in order to manage the load of alcohol consumption and keep their palates as fresh as possible.

During each session, respondents evaluated seven wines divided in two blocks: 1) red (5 types) and dessert (2 types) wines; and 2) sparkling (3 types) and white (4 types) wines, for a total of fourteen wines tasted by each respondent over two days. The wines were selected by members of the Australian Wine Research Institute (AWRI) and the Ehrenberg-Bass Institute for Marketing Science (EBI), who chose the most dominant wine styles Australia exports to China. These wines were sourced in China from distributors and air freighted back to Australia to be profiled by the AWRI trained descriptive analysis panel. The final list of wines can be seen in Table 1.

Table 1: List of wines used in the study

Type	Wine no.	Wine
Red wines	170	2010 Adelaide Hills Shiraz
	283	2011 Mornington Peninsula Pinot Noir
	396	2011 McLaren Vale Grenache
	509	2011 Margaret River Cabernet Sauvignon/Merlot
	912	2010 Barossa Valley Shiraz
White wines	291	2011 Margaret River Chardonnay
	390	2012 South Australian Viognier
	448	2011 Margaret River Sauvignon Blanc/Semillon
	919	2012 Clare Valley Riesling
Sparkling wines	405	2005 Yarra Valley Chardonnay/Pinot Noir Sparkling
	756	Victoria Zibibbo Rosè Sparkling (nv)
	937	Australian Moscato Sparkling (nv)
Dessert wines	713	2012 King Valley Moscato
	946	South Australian Tawny (nv)

Within each session, all respondents tried the red wines before the dessert wines. The allocation of the wines within each style was controlled by a randomised block design. The wines were presented monadically in three-digit coded wine glasses, each containing 30ml of wine with a confirmed temperature threshold for each wine style. Each respondent was given a two minute break between wines of the same style and five minute break between wines of different styles with water provided between each sample to cleanse the palate.

The surveys were designed in English, professionally translated into Mandarin and then

back translated by a third party into English to prevent translation bias. In order to prevent confusion in data collection, each evaluation was conducted on a separate piece of paper. Liking ratings, willingness to pay measures and price perceptions were collected, but these data are not presented here due to space limitations.

After the ratings, a list of generic and specific wine descriptors was shown to respondents. After trying each wine, the respondents were asked to tick all the generic and specific wine descriptors they could perceive through tasting the wine. The terms were listed on the survey instrument according to the Chinese Pinyin system, which is the official phonetic system for translating the sounds of Chinese characters into Latin alphabet. The list of generic descriptors included eighteen terms commonly used to describe wines (see Table 2).

Table 2: List of generic descriptors

Sour	Pure	Intense	Balanced
Mellow	Full bodied	Fruity	Oaky
Astringent	Bitter	Sweet	Pungent
Lingering	High alcohol	Refreshing	Spicy
Smooth	Light		

The list of specific terms was developed according to the results of a qualitative study conducted by Corsi et al. (2013) on the most common descriptors Chinese consumers use to describe red, white, sparkling and dessert wines. The researchers generated the list of hypothetical equivalences for this qualitative study from the Western and Chinese specific descriptors proposed by Jennie Cho Lee (2013). The list of Chinese red wine terms and their Western equivalences applied in this quantitative study can be found in Table 3 below.

Table 3: List of specific descriptors for red wines and tawny (NV)

RED WINES + TAWNY (NV)	
CHINESE	WESTERN
Yangmei	Strawberry
Dried Chinese hawthorn	Blackberry preserve
Dried wolfberry	Strawberry preserve
Dried Chinese red dates	Plum
Fresh Chinese red dates	Blackcurrant
Fresh wolfberry	Raspberry
Clove	Clove
Star anise	Star anise
Chinese black tea leaves	Dark cherries
Persimmon	Red plum
Chinese sausage	Cooked game
Pine nut	Vanilla
Chinese salted pork	Bacon
Chinese green peppers	Green bell peppers

The respondents were only presented one of the two sets of specific descriptors – Chinese or Western – depending on their group allocation. They were also standardised for respondents across both tasting sessions. The specific descriptors tested for each wine varied according to the wine style evaluated

The study followed a between-subject design, where the equivalence between Chinese specific terms and Western specific terms could be tested. Given that both groups evaluated the same wines, having the generic terms standardised across groups is an effective protocol

to test the similarity of the groups as one would expect that the evaluation respondents give to the wines using the generic terms would be nearly identical. Upon confirmation of this, the way in which the respondents evaluate the wines based on specific descriptors can then be tested to scientifically validate what Chinese terms are statistically linked to their equivalences.

Correspondence analysis (CA) was used to analyse the data. This multivariate statistical technique is conceptually similar to principal component analysis (PCA), but instead of using continuous variables, it is applicable to categorical data. As in PCA, the output of CA is a set of coordinates onto the i dimensions of a CA plot for each of the items included in the analysis (in our case wines and descriptors). For ease of interpretation, the plot is often reduced to two dimensions. However, differently from PCA, where each axis can be defined by the factor scores each original variable is loaded onto, the axes in CA have no other meaning than a bi-dimensional representation of the associations between the items displayed in the plot (Beh, 2004; Greenacre, 2007).

3. Results

The results relative to the descriptors for red wines and a South Australian tawny (NV) (Figure 1 and Figure 2) show that both groups of respondents evaluated the wines in a similar way, associating most of the generic and specific descriptors around the same wines. Wine 283, the 2011 Mornington Peninsula Pinot Noir, and wine 946, the South Australian tawny (NV), are perceived to be distinctively different from the other wines – the 2011 Adelaide Hills Shiraz (170), the 2011 McLaren Vale (396), the 2011 Margaret River Cabernet Sauvignon Merlot (509), and the 2010 Barossa Valley Shiraz (912).

Also, the majority of the generic descriptors (fifteen out of seventeen) associated with these wines are identical across the two groups, thus proving that at an aggregate level, respondents evaluated the wines in an identical way. Most of these descriptors cluster around wines 170, 396, 509, and 912, which are perceived to be smooth, pure, lingering, balanced, astringent, bitter, oaky, mellow, full bodied, intense, high in alcohol, and pungent. These wines represent the more traditional fruit-driven, full-bodied, high-alcohol wines Australia became famous for worldwide. Wine 283, the 2011 Mornington Peninsula Pinot Noir, is perceived to be light, refreshing and sour. The only divergence between the two groups is relative to associations with wine 946, the South Australian tawny. The wine is perceived as sweet by both groups. However, the group in the Chinese descriptors' condition evaluated this wine as also being fruity and spicy, but in the Western descriptors' condition these two terms are more closely associated with the four still red wines.

For the specific descriptors, the hypothesised equivalences are verified for eight out of the fourteen descriptors used for for red wines and the South Australian tawny (NV). In particular, looking at the cluster containing wines 170, 396, 509, and 912 the Chinese terms “yangmei”, “Chinese sausage”, “Chinese green peppers”, “persimmons”, “Chinese salted pork”, and “pine nut” are found equivalent to “strawberry”, “cooked game”, “Asian green peppers”, “red plum”, “bacon”, and “vanilla”, while the equivalence between “dried Chinese red dates” and “plum” does not seem to be supported.

The equivalences between “strawberry preserve” and “dried wolfberry” with “blackberry preserve” and “dried Chinese hawthorn” are supported as descriptors of the South Australian tawny (NV). However, the group who evaluated the wines with Chinese descriptors seem to associate more elements with the Australian tawny such as “fresh and dried Chinese red dates”, “fresh wolfberries”, “star anise”, “Chinese black tea leaves”, and “clove”. These elements in the Western equivalent form (“blackcurrant”, “plum”, “raspberries”, “star anise”,

“dark cherries”, “clove”, fruity and spicy) are instead clustered around the other four still red wines.

Table 4 summarises the equivalences between Chinese and Western wine descriptors for red wines and the South Australian tawny (NV).

Table 4: Equivalences between Chinese and Western specific wine descriptors for the red wines and the tawny (NV)

RED WINES + TAWNY (NV)		
CHINESE	WESTERN	EQUIVALENCE VERIFIED
Yangmei	Strawberry	✓
Dried Chinese hawthorn	Blackberry preserve	✓
Dried wolfberry	Strawberry preserve	✓
Dried Chinese red dates	Plum	✗
Fresh Chinese red dates	Blackcurrant	✗
Fresh wolfberry	Raspberry	✗
Clove	Clove	✗
Star anise	Star anise	✓
Chinese black tea leaves	Dark cherries	✗
Persimmon	Red plum	✓
Chinese sausage	Cooked game	✓
Pine nut	Vanilla	✓
Chinese salted pork	Bacon	✓
Chinese green peppers	Green bell peppers	✗

Figure 1: Correspondence analysis map for the red wines and the tawny (NV) – Chinese descriptors

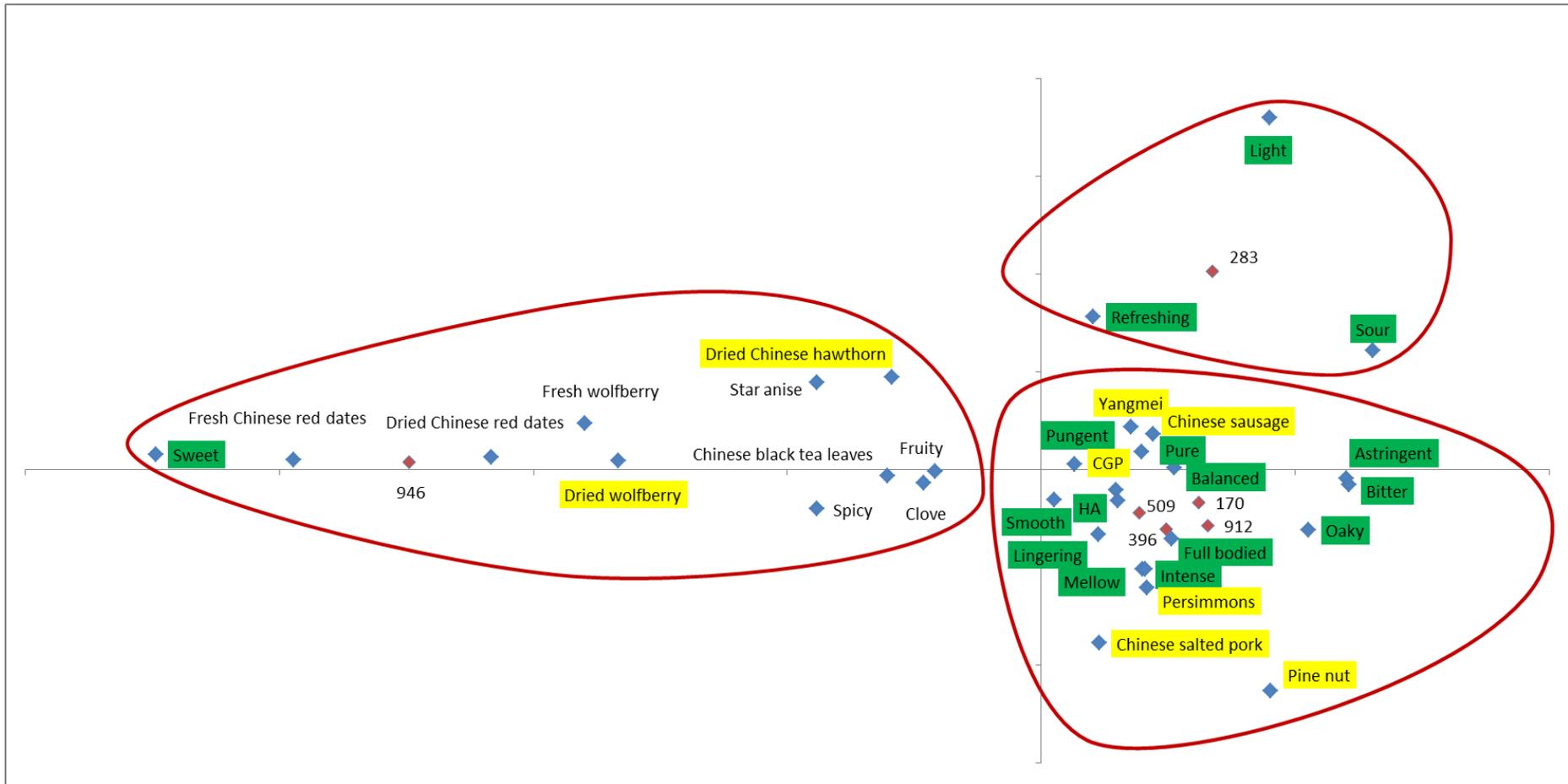
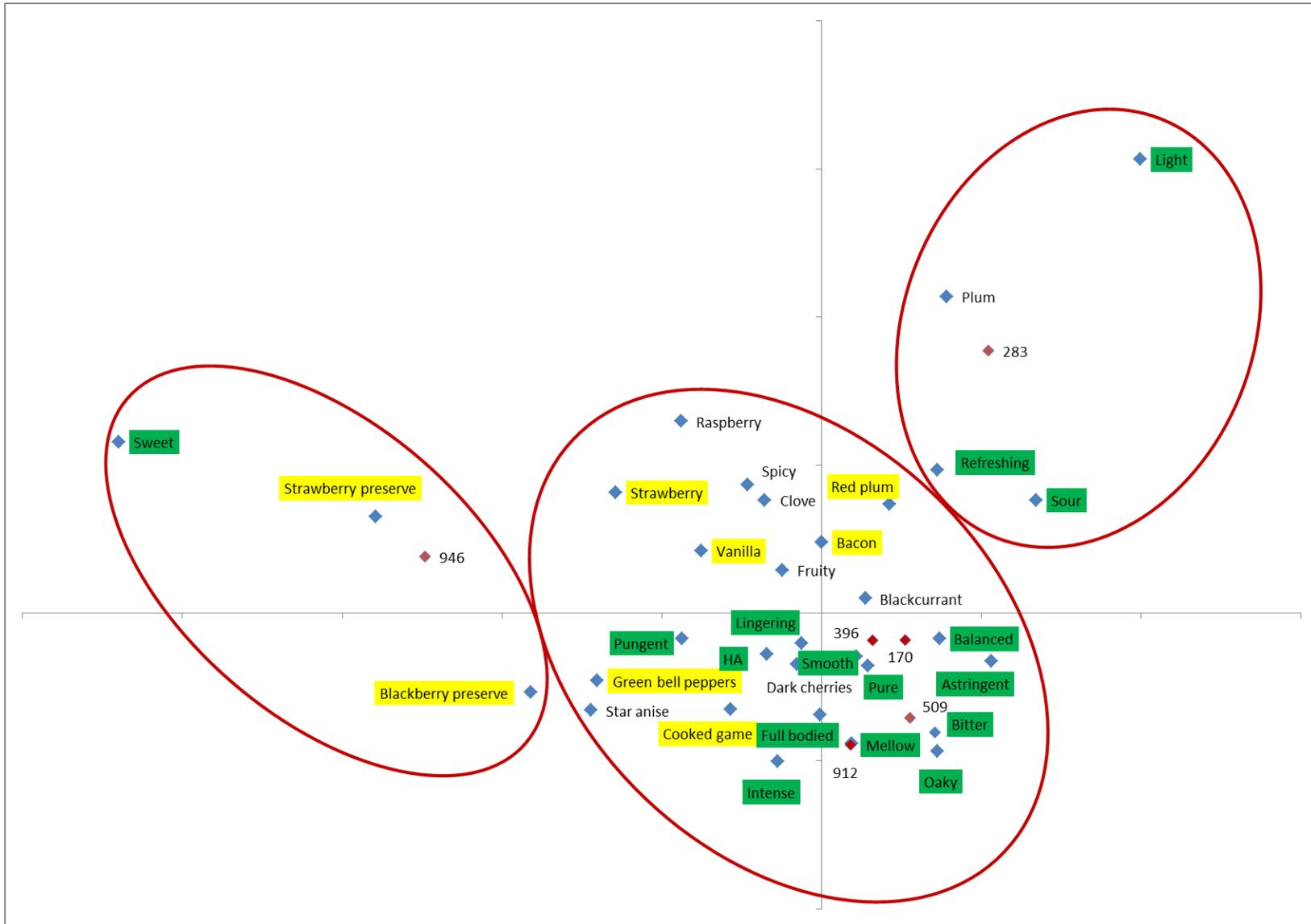


Figure 2: Correspondence analysis map for the red wines and the tawny (NV) – Western descriptors



4. Discussion and conclusions

This study has been the first to validate any equivalence of the Chinese specific terms indicated by Jennie Cho-Lee (2011). Eight of fourteen Western descriptors were found to have Chinese equivalents in our test of five red and one tawny port wines. Furthermore through the correspondence analysis, we were able to identify clusters of taste descriptors around particular wine styles, which help wine makers to understand not only the Chinese terms that can be used to describe the sensory profile of their wines to consumers, but also the potential consideration set of competing styles in a Chinese-centric sensory profile. This is one of the first empirical research projects that looked at wine evaluation from the Chinese viewpoint. Future analysis of the data will add white and sparkling wines and include likeability, willingness to pay and perceived price points for each wine for respondents using Western versus Chinese terminology. The full suite of insights should serve to inform not only Australian producers, but the global industry on how best to describe their wines and position them amongst their competition in this valuable market.

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**Tell me why you like to drink wine:
Drinking motivations as a basis for market segmentation**

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Purpose *Wine is a complex product, both from a sensory as well as a symbolic perspective. Consumers cope with this complexity by developing intricate and highly context-dependent decision rules when buying wine. Several attempts to understand consumer behaviour using market segmentation techniques have been reported on the literature. Most of them use a psychometric approach based on lifestyle and level of involvement, or are based on consuming occasion; yet very few consider the interaction of these factors. In this paper we propose a mixed segmentation approach based on motivations and level of involvement for a given consuming occasion.*

Methodology *Based on a sample of Chilean premium wine consumers and using in-depth qualitative methods, four motivations for drinking wine were found: Social cohesion, Sophistication, Self-indulgence, and Tradition. Different motivations may act on the same consumer depending on the particular consuming occasion. Level of involvement seems to affect consumers' behaviour mainly through their level of confidence in their own wine-related decisions.*

Findings *Motivations seem to be a more concise and powerful factor than consuming occasion when explaining consumer behaviour. However, the effect of motivations is mediated by each consumer's level of involvement. Future work should include empirically validating these motivations, as well as measuring their actual impact on consumers' purchase behaviour.*

Key words: consumer; motivation; segmentation; clustering; wine marketing.

1 INTRODUCTION

Wine is a complex product from a consumer's point of view. To start, it is an experience product, *i.e.* it can only be fully appreciated after consumption because it is not possible to smell or taste it before a bottle is opened (Grunert 2005). Secondly, wine presents a vast and depth sensory variety (Ferreira *et al.* 2007), which is often overwhelming to the new consumer (Charters & Pettigrew 2003). Furthermore, wine is deeply rooted in the history of Western culture, bearing complex social (Mouret *et al.* 2013), cultural and religious symbolisms (Stanislawski 1975).

Wine complexity induces complex behaviour on consumers, making it harder for the wine industry to understand the market. Preferences for wine seem to be not only heterogeneous among the population (Blackman *et al.* 2010), but also variable within individuals (Mueller & Szolnoki 2010) and strongly context-dependant (Ritchie 2007). Since understanding consumers is the first step to effective marketing, a method to untangle this complexity is required.

Segmentation is one of the most traditional techniques used to understand consumers (Smith 1956), and as such, it has been applied to the wine market (Lockshin & Hall 2003, Lockshin & Corsi 2012). Traditionally, four factors or variables on which market segmenting can be based have been found (Arnould *et al.* 2002): demographics, geographic location, behaviour, and psychological characteristics of the consumers. On the wine industry, the latter has been the most explored (Spawton 1990, Lockshin *et al.* 1997, Bruwer *et al.* 2002), but some have proposed occasion based segmentations (Dubow 1992) and even mixed approaches (Quester & Smart 1998).

Within psychological segmentation, several approaches exist with no one standing out as clearly superior. Level of involvement and lifestyle has been two of the most studied segmentation variables, yet neither of them considers the influence of drinking context, such as the consumption occasion. Consumption occasion is a relevant factor in wine liking and purchasing, as empirically shown by Martínez-Carrasco *et al.* (2006), Hersleth *et al.* (2003) and Hall (2003). A third alternative, also within the psychological segmentation approach, is to segment the market based on the motivations behind drinking. According to the theory of planned behaviour, "intentions are assumed to capture the motivational factors that influence a behaviour" (Ajzen 1991). Therefore, consumers' motivations for drinking wine would be linked to their behaviour, making motivation a useful segmentation variable.

Segmentation based on motivations has the benefit of being naturally related to consuming occasion. Our approach does not associate consumers to motivations on a fixed manner, regardless of consuming occasion. Instead, a given consumer may be driven to drink by different motivations on different occasions. Hence, it is the consumer's perception of a drinking occasion what will determine the motivation that applies in each case. By identifying which motivations consumers associate to the most profitable or recurring consuming occasions, marketing efforts could concentrate on a few motivations instead of on many different consuming occasions.

Despite all the benefits of motivation-based segmentation, this approach is not common on wine market research. Meanwhile, the need for an efficient segmentation of the wine market remains unsatisfied.

This study aims to identify the most relevant motivations for wine drinking, as a first stage on developing a motivation-based segmentation for the wine market. To this end, an exploratory study was done on Chilean premium wine consumers. Qualitative methods were used because they fitted better with the exploratory nature of the study. It should be noted that Chile is an interesting place to study wine consumption, because its premium wine market developed only on the nineties, similarly to many other emerging economies, where premium wine consumption is a relatively new trend. Also, as motivations do not affect all individuals in the same way, a basic segmentation based on consumer's characteristics is proposed.

The rest of the paper is organised as follows. Second section presents a brief review of the literature on wine market segmentation. Third section describes the methodology used in the study. Then the main results follow, closing with a brief discussion.

2 BACKGROUND

Most wine market segmentation studies are based on psychological variables. The standard was set by Spawton (1990) who, based on research by McKinna (1987), identified four consumer segments: *Connoisseurs* (knowledgeable segment, they consume often and they like to experiment with new wines), *Aspirational drinkers* (concerned with self-image projected, buy fashionable brands, seek advice), *Beverage wine consumers* (consume often but do not experiment) and *New wine drinkers* (new to wine, drink mostly on premises). A later study by Hall & Winchester (2000) empirically confirmed three out of Spawton's (1990) four segments, changing the New wine drinkers for an *Enjoyment-oriented* segment.

After the work of Spawton (1990), other researchers have explored different segmentation variables, but mainly within the psychological spectrum. Level of involvement, wine-related lifestyles and occasion are the most studied segmentation variables, even though there has also been some work on motivation-based segmenting (Dubow 1992), as well as other attempts based on consumer behaviour (Mueller & Lockshin 2013 and Goodman *et al.* 2002). This section shortly presents the most relevant work on each area.

2.1 Segmentation based on consuming occasion

Although segmentation based on consuming occasion is probably one of the least popular strategies in the literature, the approach is very promising. As Ritchie (2007) points out, wine satisfies different functions on consumer lives, and those functions are highly dependent on context. Consumers do not behave the same way (*i.e.* do not buy the same wine) when buying a bottle for themselves, buying it as a gift, taking it to a dinner party, or to sharing it with someone at a restaurant.

Dubow (1992) compared a consumer-based segmentation with an occasion-based segmentation. In the first approach users are classified based on their answers to a questionnaire about their motivation for wine drinking, without specifying a particular consuming occasion. The second approach requires consumers to report all the consuming occasions faced during a certain period, and then segmented these (based on their characteristics). Therefore, this approach does not classify consumers on segments; rather it classifies consuming occasions on a set of occasion-based segments, regardless of

which consumer reported the occasion. These occasion segments can be interpreted as prototypical consuming occasions, just as any user-based segment can be understood as a prototypical consumer. The author called the occasion-based segments Need states.

Consuming occasions were described using 33 benefits or motives to consume wine, making Dubow's work (1992) a mixed approach to segmenting. The tacit hypothesis behind this study is that occasions differ from one another due to the motivation they entangle.

Dubow (1992) found five segments through each approach, but only three of them were common to both approaches. The five segments associated with an occasion-based approach were: *Social* (drinks to share with others), *Introspective* (drinks to improve mood), *Semi-temperate* (drinks light wine), *Food enhancement* (drinks to enhance food), and *Oenophilic* (drinks for the aroma, enjoys choosing wine). The author concluded that occasion-based segmentation is more informative than user-based segmentation, at least on the case of products where consumers are not loyal to a brand.

Hall & Lockshin (2000) used means-end chain analysis to study the perceptual differences between consuming occasions. Means-end chain analysis aims to link personal values to product characteristics. It assumes that the product is the mean used by consumers to achieve their end (the end being values that are important to consumers). Given that values act as motivations for consumers (Vinson *et al.* 1997), the work of Hall & Lockshin (2000) is able to relate occasions with motivations, and thus constitutes a mixed approach to consumer behaviour analysis. The authors worked with nine predefined values (motivations), taken from Kamakura & Novak (1992), and eight consuming occasions set *a priori*: intimate dinner, meal with friends, meal with family, business related, outdoor BBQ/picnic, party/celebration, self, and with friends.

Finally, Quester & Smart (1998) –unlike the previous work discussed– advocated for an approach that considers both the consumption occasion and the level of product involvement of the consumer. Using conjoint analysis, they demonstrated that the behaviour of consumers changed based both on consuming occasion and level of product involvement. In their experiment, the authors only considered buying wine for three fixed occasions: meal at home during the week, dinner party at a friend's house, and a gift for the employer.

2.2 Segmentation based on motivation

To our knowledge, the only published study using segmentation based only on motivations is that by Dubow (1992), particularly, his user-based segmentation. But as Dubow (1992) states, his occasion based segmentation seems to work better. The lack of work around segmentation based on motivations is probably due to its close relation to consuming occasion, as has been noted previously.

Brunner & Siegrist (2011) included product and brand involvement, lifestyle, and motives in their study. They used a questionnaire including original items as well as others taken from Lockshin *et al.* (1997) and Dubow (1992). Six segments were found: Price conscious, Involved, Image-oriented, Indifferent, Basic, and Enjoyment-oriented.

Even though not a segmentation study, Charters & Pettigrew (2008) performed an extensive qualitative study on the motivations for wine drinking. They identified two dimensions on the experience of

drinking wine: experiential and symbolic. The experiential dimension entails three aspects: personal enjoyment of wine, no matter if it is sensorial or cognitive; the feelings when consuming wine with a meal or with others; and the relaxing effect. The symbolic dimension also considers three aspects: the drinking ritual and its different meanings; links between wine and consumers' personal history; and the way consumers want other to see them. Charters & Pettigrew (2008) concluded that the experiential dimension is the most relevant for the majority of consumers, even though it interacts with the symbolic one. The authors also note that –for some consumers– wine is something that gives meaning to life. This relates to Charters & Pettigrew (2005) perception of wine as a quasi-aesthetic product, *i.e.* a product that is not only considered a beverage, but that can be appreciated in a sensorial and cognitive way, just like art.

3 METHODOLOGY

A sample of premium wine consumers were first recruited to participate in in-depth interviews using two methods. The first was an open invitation published in the facebook page of the *Centro de Aromas y Sabores*. All interested individuals had to go through a filter in order to be accepted; the requirements were to had bought and drunk premium wine at least once during the last month. The second recruiting process was an invitation sent by e-mail to a subset of consumers affiliated to a popular wine Club. While the first process aimed to recruit occasional consumers, the second sought to capture more experienced users (*i.e.* individuals who buy and consume wine regularly). A heterogeneous sample of consumers (according to their socio-demographic characteristics) was finally selected to participate.

Fourteen consumers were interviewed, four of them being members of the wine club. Half of the sample was female, and six individuals were forty years or older. All interviews were performed on places selected by the consumers, to make them feel comfortable (*i.e.* mainly at their houses or workplaces). Theoretical saturation was achieved after coding and thoroughly analysing seven interviews. The rest were listened and evaluated, but not coded, since they did not to provide significant additional information. Table 1 shows characteristics of those consumers whose interviews were analysed.

Table 1 – Main characteristics of the seven in-depth interview respondents

Gender	Age	Occupation
Female	42	Commercial assistant
Female	29	Technician
Female	43	Secretary
Male	43	Physical education teacher
Female	41	Secretary
Female	32	Journalist
Female	22	Student

Interviews were episodic (Flick, 2004). An episodic interview is a one-on-one interview, where the respondent is asked to narrate a number of events related to the research subject, allowing him to elaborate those aspects that she considers relevant. In our study, consumers had to describe the last time they bought wine, the last time they drank wine and the last time they gave wine as a present. The analysis was performed following the thematic coding proposed by Flick (2004), which considers four stages: coding, categorization, category description, and category harmonization. Based on results of the last stage, a consensus map (Zaltman 2003, Novak & Cañas 2008) was also built.

Six focus groups were then conducted. They were classified based on their gender, age, wine consuming frequency and the amount of time they had been consuming wine regularly. Table 2 shows the main characteristics of the participants of each focus group. Even though no income restrictions were included in the recruiting process for the focus groups, only medium and high income individuals participated. This happened because all participants had to have bought and drunk at least one bottle of premium wine recently.

Table 2 – Focus group filters

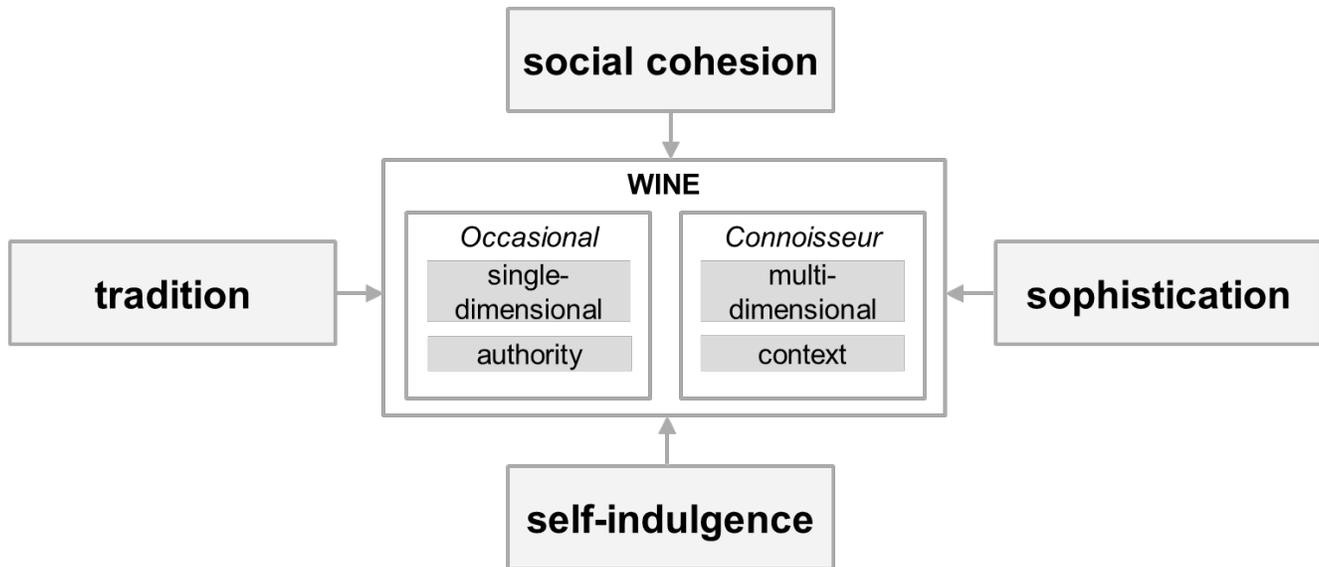
Focus Group	Gender of participants	Level of involvement with wine	Age
1	Males	High	30 to 60
2	Females	High	30 to 60
3	Males & Females	Medium (novice drinker)	25 to 35
4	Males & Females	Medium (novice drinker)	36 to 60
5	Males & Females	Low	25 to 35
6	Males & Females	Low	36 to 60

All sessions were structured around seven topics: purchasing process, purchase experience, consuming occasion, product choice, relation between wine attributes and consuming occasion, sensorial experience, and information sources. For closure, a list of the most relevant attributes of wine was constructed. The motivation for drinking wine was not explicitly included in the script of the focus groups, as it was intended to show up on its own during the discussion. Audio recordings of all six focus groups sessions were made, for later analysis.

4 RESULTS

Figure 1 presents the consensus map resulting from the in-depth episodic interviews and focus groups analyses. Four main motivations were identified: Social cohesion, Sophistication, Self-indulgence and Tradition. Furthermore, a basic dichotomous classification of consumers was also proposed: Occasional and *Connoisseur*. All of them are developed below.

Figure 1 – Consensus map with four motivations for drinking wine, and two classes of consumers



4.1 Motivations for drinking wine

Social cohesion, Sophistication, Self-indulgence and Tradition are four motivations to drink wine. These motivations determine the way consumers relate to wine by giving it a particular role in their life, as well as in their relation to others. More than one motivation can be present on a given consumer, as she faces different consuming occasions.

Social Cohesion, relates to the social environment in which wine drinking often happens, an environment that validates wine consumption. In Chile, as in many other societies, wine is the preferred drink with meals, and it is also used in social gatherings and celebrations, even religious ones, as in the case of the Catholic mass. On social occasions, wine helps people to relax, easing social relations. This is in direct connection with wine's alcoholic nature, as several participants expressed. And even though drunkenness is often condemned, moderate wine consumption is not negatively perceived.

Wine can also ease social relations by providing a conversation subject. When a good wine is on the table, talking about the wine itself can work as a conversation starter. Even more, trying new wines can be the very reason to get together with friends.

Even though Social cohesion explains wine drinking based on social interactions, wine is actually considered a drink for intimate occasions by consumers. This means that wine is perceived as a drink to share with close friends or family, not to be drunk at massive parties. This perception relates to wine being a relaxing drink, not a drink to “get tipsy”, as other mass consumption products might be.

Sophistication is born from the desire of being unique. A sophisticated individual wants to be distinguished from others, and being an expert on wine allows him to differentiate. The fact that a particular consumer is moved by Sophistication does not necessarily imply that the individual's interest in wine is purely utilitarian. Sophistication may entail a genuine passion for wine as an object (*i.e.* the individual is honestly attracted by wine and its world). The sophisticated individual will seek to learn

more about wine just as music-lovers do not only listen to music, but educate themselves on it. This motivation can make wine a hobby or even a passion.

When someone is passionate about wine, an intellectual interest on wine is observed. This means that consumers moved by sophistication will seek on wine a device for distinction rather than a product for sensorial experience. Their interest can range from learning about the history of wine, to the particular wine maker. Again, this does not mean that they necessarily disregard its sensorial qualities, as many enjoy the exercise of looking for the particular aromas mentioned on the back label of the wines they drink.

This motivation, in its passionate form, is usually remarkable on *Connoisseur* consumers (i.e. consumers with very good knowledge of wine). This often makes these consumers a reference, enabling them to assume an authority role for other, less informed, wine drinkers.

Self-indulgence represents the tendency to gratify oneself, in the sense of attempting to add pleasure to everyday life. This does not necessarily correspond to an hedonist way of life, but rather the sense of reward for one's efforts, or an "I deserve to be happy and enjoy myself" way of thinking. This particular motivation was more commonly observed on less juvenile consumers (over forty years old, approx.).

The motivation to drink by Self-indulgence requires a strong association between wine and pleasure. This pleasure can arise from two main sources. First, as was explicitly mentioned by consumers, it can arise from the sensory properties of wine (i.e. consumers enjoy wine's aroma and flavour). Secondly, and not explicitly mentioned by consumers, the reward may come from drinking something exclusive (i.e. to buy and drink an expensive wine makes the consumer feel rewarded). Both sources of pleasure are not mutually exclusive and often present themselves together.

Even though Self-indulgence seems to be a rather individualistic motivation to drink wine, it can also include others (close individuals). An example of this is a romantic dinner with a partner, where wine is carefully picked up to meet the expectations and allowing to share a nice experience.

Tradition represents the socio-cultural influence on wine consuming behaviour. This comes from many sources, being family and closer relationships the most remarkable. The image of the father (or grandfather) at the head of the table, having wine with the meal, helps legitimizing wine consumption, and gives it a halo of filial and fraternal bond. This may motivate wine consumption as an attempt to live once again those warm feelings.

Tradition also adds a strongly masculine aspect to wine representation. This was particularly noticeable on middle-aged women, but several males also fondly remembered the first time they drank wine with their fathers. This association may also help explaining why red wine is preferred over white among Chilean male consumers: as wine is considered male, it should be strong, a characteristic more suitable for red than white wine.

The consumption of wine on annual festivities, such as the national holidays, Christmas, or New Year's Eve, is also linked to tradition as a motivation. In Chile, these festivities are often celebrated

with a family meal, where wine is most commonly the preferred drink. This argument may be extended to also include other occasional celebrations, such as marriages.

4.2 Consumer classes

Besides identifying four motivations for drinking wine, two basic classes of wine consumers were detected: Occasional and *Connoisseur* consumers. More than being the result of a strict classification exercise they represent archetypical consumers, so each individual is expected to present characteristics of both classes but with one of them dominating over the other. The main (observable) difference among the two classes is their level of confidence on their own wine-related decisions.

The **Occasional consumer** tends to perceive wine as a single-dimensional product, with quality being the main concern. But quality is a vague concept for Occasional consumers. Although they often perceive it as an objective characteristic, they believe they lack enough knowledge about wine to make a correct judgement about quality. They believe themselves to be incapable -at least to some extent- to differentiate a good wine from a bad one. Therefore, they resort to figures of authority when choosing wine. If no authorized source of information is available, the Occasional consumer heavily relies on price, assuming that more expensive wines provide higher quality.

Occasional consumer's evaluations of wine tend to be static and independent of context. This is a consequence of considering external opinions as the only valid parameter to judge a wine, and the tendency of these consumers to strip those opinions of their context and generalized them as absolute rules. This leads to occasional consumers having a list of "good wines" they buy and consume, disregarding the particulars of the occasion they are drink at.

Connoisseur consumers perceive wine as a multi-dimensional product, meaning that a particular wine is not good or bad *per se*, but that it has certain characteristics which makes it good or bad depending on the drinker's personal tastes and drinking occasion. This perception is only achievable if consumers have a certain level of experience or knowledge about wine. However, the specific depth of this knowledge is largely irrelevant, as only a small amount is necessary. The most relevant thing is that these consumers are confident enough on their knowledge, so the *Connoisseur* can judge wines based on it. And trusting one's own judgement has more to do with confidence than with actual knowledge.

Even though *Connoisseur* consumers perceive wine in a multidimensional way, they still consider quality in their evaluation, but their perception of quality can depend on a series of contextual factors. Among these factors, price can play an important role. Therefore, *Connoisseur* consumers may associate higher prices with higher quality, but not in a necessarily strict manner. Most consider that as price grows, it becomes less probable to find defects on wine.

Both classes of consumers interact with each other. The *Connoisseur* often plays the role of authority for the Occasional consumer. At the same time, Occasional consumers often see themselves on a learning path to become a *Connoisseur*. Most Occasional consumers in the sample did manifest explicitly their will to learn more about wine. This, nonetheless, could be a particularity of our sample, because of a self-selection bias (as many participants postulated to participate on the study, they may be more interested in wine than the average consumer).

The way to become a *Connoisseur* consumer seems to be experience. When *Connoisseurs* were asked about how they became confident about their own knowledge, most of them answered that it was through experience (i.e. having tested many different wines puts them in a better position to judge new ones). This perception is shared by most occasional consumers, who referred to their figures of authority as someone who had tried many different wines. But the access to a large diversity of wines is mediated by each consumer's budget. This is perceived as a limitation by consumers with lower income, making it harder for them to eventually become *Connoisseurs*.

To be a *Connoisseur* consumer does not necessarily imply a higher volume of wine consumption, but it does seem to involve a higher degree of diversity on purchase behaviour. Occasional consumers often buy a limited set of products, and tend not to try new wines unless they are recommended by some "authority" (a *Connoisseur* friend or a good review they might have read). *Connoisseurs*, instead, tend to buy new wines, either by taking a chance or by searching for information themselves (looking up products on the internet or periodically checking blogs or wine clubs). This does not mean that *Connoisseurs* do not rely on habit when buying wine, but to a far lesser extent than occasional consumers.

5 DISCUSSION

Each motivation can be associated with different types of consuming occasions and therefore (at least hypothetically) to different purchasing behaviours. Social cohesion can be viewed as drinking with friends, either at a barbecue or at a dinner party; Sophistication can induce consumers to seek occasions where they can show their wine knowledge in front of friends or other peers (at a business dinner, for example); Self-indulgence can manifest itself when drinking a glass of wine at home; and Tradition can explain the consumption of wine during an everyday meal or a family reunion.

Since motivations are strongly associated with consuming occasions, different motivations can act upon the same consumer at different times. This result reinforces the conclusion of Ritchie (2007), Martínez-Carrasco *et al.* (2006), Hersleth *et al.* (2003), Hall (2003) and Hall & Lockshin (2000), all of whom postulate that wine purchase behaviour is highly contextual. Also, the same relation between motivation and consuming occasion validates a tacit hypothesis of Dubow (1992), that the reason why people purchase different wines on different occasions is because their motivations are different.

Based on our results, we postulate that motivations are a more useful factor to consider than consuming occasion when predicting wine consumers choices. Our study shows that the reason why consumers purchase differently on different occasions is because their motivations are different, making consuming occasion a proxy of consuming motivation. In other words, what matters the most is the motivation behind the occasion, not the occasion itself.

Even though all consumers are subject to the same motivations in varying degrees, their confidence level also plays a relevant role on how they choose and buy wine. Charters & Pettigrew (2006) associate this confidence level directly with product involvement "High involvement seems either to impart knowledge and expertise or result from them. This gives the drinker confidence in dealing with the more cognitive aspects of engaging with a quasi-aesthetic product like wine."

We believe that the true richness of segmentation relies on the interaction between motivations (or consuming occasions) and level of involvement, as Quester & Smart (1998) argue. That is why our proposed segmentation, based on involvement, does not attempt to emulate the complexity of those made by Lockshin *et al.* (1997) and Aurifeille *et al.* (2002). Classifying consumers as Occasional or *Connoisseurs* only attempts to complement the effect that motivations have on consumer behaviour.

We are aware that developing and implementing a mixed approach to segmentation, by considering motivation and level of involvement jointly, is a complex endeavour. The complexity primarily arises from the difficulty to turn motivations into useful marketing guides. We believe that measuring the effect of all motivations across a representative sample of consuming occasions would help identifying a set of motivations that are more common or more profitably, therefore assigning a measure of “market share” to each of them.

Another possible application of the discovered motivations would be to include them on choice models. O'Neill *et al.* (2014) use latent variables for modelling taste and attitudes, obtaining significant improvements over simpler models. We propose that the inclusion of motivation on those kind of models -either through the use of latent variables or other methodology- might help improving our understanding of consumer behaviour.

This study aimed to set the basis for a segmentation of wine consumers considering motivations and level of involvement. The following stages of our work will consider the construction and validation of an instrument to measure (and hopefully empirically confirm) the presence of our four motivations (Social cohesion, Sophistication, Self-indulgence, and Tradition) among Chilean consumers. After validating the proposed motivations, their capacity to explain consumer behaviour should be put to the test. We are currently working on building a panel of consumers to perform all these activities.

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Objective and Subjective Wine Knowledge: Evidence from an Online Study

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Purpose: This paper offers evidence on the relationship between objective and subjective wine knowledge and consumer demographics, as well as further exploring the nature of subjective wine knowledge. Design: This paper used an online study, aimed at measuring objective wine knowledge, and subjective wine knowledge using two different scales, and also testing the impact of consumer age, gender, education and actual consumption on these. Findings: This study confirms the significant positive link between objective and subjective wine knowledge. It also gives evidence of the convergent validity of both the short subjective wine knowledge scale used by Forbes, Cohen and Dean (2008) as well as the longer, more established subjective scale of Flynn and Goldsmith (1999)

Keywords: Wine Knowledge, Consumer Demographics, Wine Consumption

1. CONSUMER KNOWLEDGE AND WINE MARKETING

One of the main reasons that wine is such a fascinating product to consumers in general and such a challenge to wine marketers is that consumer evaluations of it can differ so substantially. While one individual may love a particular wine, another consumer can be completely indifferent to it. The popular media is awash with stories of how expensive wines don't always perform well in blind tastings (e.g. Lehrer, 2011; WineX Magazine, undated; Kramer, 2011), and books have been written (e.g. Taber, 2005) and movies (e.g. Bottle Shock, 2008) produced about the real or supposed inability of experts to accurately judge the quality of wines. While Nobel Laureate Gary Becker (1998) disagrees, economists generally argue that there is no accounting for taste. Wine marketers and wine marketing scholars alike have long been interested in how knowledge impacts on the individuals ability to taste wine accurately, and to make decisions. Indeed the term “connoisseur” (from the Old French *connoisseur*, from *connoistre* – “to know”) refers to someone who enjoys with discrimination and appreciation of subtleties, as in “a connoisseur of fine wines” (see <http://www.merriam-webster.com/dictionary/connoisseur>).

Consumer researchers (Brucks, 1985) have viewed knowledge from three perspectives: objective knowledge, subjective knowledge and familiarity. In simple terms, objective knowledge is the knowledge that the individual truly possesses, and is able to demonstrate. The individual shows objective knowledge when they are able to give the correct answer to a question. Subjective knowledge is what the individual believes or thinks they know about a particular topic (such as wine), and these perceptions may estimate knowledge correctly or incorrectly. Familiarity has more to do with the consumer’s actual experience with a topic or product and has been defined as “the number of product-related experiences accumulated by a consumer” (Rao and Monroe, 1988), or as “representing the accumulated number of experiences with the product” (Perrouy, d’Hauteville, and Lockshin, 2006).

Despite the work of Forbes, Cohen and Dean (2008), less attention has been given to the relationship between objective and subjective wine knowledge, and the impact of broader demographics such as gender, age, education and actual wine consumption on wine knowledge. This paper attempts to bridge this gap by offering additional evidence on the relationship between objective and subjective wine knowledge and consumer demographics, as well as further exploring the nature of subjective wine knowledge. It proceeds as follows: First, it briefly reviews the literature on consumer objective and subjective knowledge with specific reference to wine knowledge. Then it outlines a study aimed at measuring objective wine knowledge, and subjective wine knowledge using two different scales, and also testing the impact of consumer age, gender, education and actual consumption on these. The findings are presented and discussed. The paper concludes by acknowledging the limitations of the research, considering the implications for managers within the wine industry, and identifying future avenues of research for wine marketing scholars.

The levels of consumer knowledge in a target wine market, both objective and subjective, are of considerable importance to wine marketers. This is because how much target consumers know, or think they know about wine can potentially impact every aspect of

wine marketing strategy. At times the wine marketer might wish to target consumers with high knowledge in a branding strategy. For example the Australian wine company Penfolds targets wine connoisseurs with its fable Grange (which sells at around \$500 per bottle), and also markets brands such as Rawson's Retreat and Koonunga Hill, which sell at around \$10 per bottle. While the wine neophyte might associate Mouton Cadet with Bordeaux first growth Chateau Mouton Rothschild – as the company intends – the aficionado knows that Cadet grapes are not even all sourced in bulk from Pauillac, let alone grown at Mouton Rothschild. Wine marketers might offer lower priced products to consumers with less wine knowledge, and who might believe that there really is no discernible difference between expensive and cheap wines. Distribution decisions are also impacted by the wine marketer's assessment of the levels of knowledge within their target market. Marketers who target connoisseurs will choose outlets with skilled and knowledgeable sales staff and excellent storage facilities, while those who target low knowledge consumers might choose supermarkets. With regard to marketing communication, marketers who target high knowledge wine consumers will probably use specialist media including *Wine Spectator*, and *Decanter* magazines, while those targeting neophytes might employ mass media such as television, with simple messages about the fun of drinking wine, and using simple and sometimes silly brand names such as Yellow Tail, Fat Bastard, and Cat's Pee on a Gooseberry Bush.

Some wine marketing scholars have studied consumer knowledge with specific reference to wine. Mitchell and Hall (2001) interviewed a large sample of winery visitors in New Zealand and explored the relationship between subjective wine knowledge and other wine behavior variables such as wine club participation, wine consumption at home, and median monthly wine purchases. Also in the context of New Zealand, Beverland (2003) considered consumer knowledge with regard to the specific class of wine, finding more knowledgeable consumers are less likely to purchase at general liquor stores or supermarkets, and are also likely to spend more on better, or more expensive wine. Orth (2002) in a study in the Czech Republic found that less knowledgeable wine were more likely to utilize the medals displayed on bottles as cues as an indicator of good quality when purchasing wine. In particular, these consumers employed the medals attribute as a means to conveniently and quickly identify those wines that were good value for money, implying that awards can be used by marketers to target less knowledgeable consumers. Perrouty, d'Hauteville, and Lockshin (2006) studied how the region of origin as a component of a wine brand adds value to a wine purchaser. They considered whether commercial brand, level of price, type of bottler, and grape variety were moderating effects on consumer subjective knowledge in a large sample of European wine consumers. They found that the region of origin's prestige was significantly moderated by the other wine attributes, and that these were more important for consumers with high subjective knowledge.

Forbes, Cohen and Dean (2008) developed an objective knowledge of wine test and used this in conjunction with an amalgam of items from a general consumer knowledge scale (Flynn and Goldsmith, 1999), and a previous subjective wine knowledge scale (Perrouty, d'Hauteville, and Lockshin, 2006), to test the relationship between subjective and objective knowledge, and how these were impacted on by variables such as age, gender, education and consumption. While they attempted to test this across four nationalities (New Zealand, Australia, United Kingdom, USA), in reality New Zealand consumers

dominated the sample and the study was carried out in New Zealand. Briefly, their most important findings were that subjective and objective wine knowledge are significantly associated, that objective knowledge and familiarity (or wine consumption) are significantly correlated, that males were significantly more objectively knowledgeable than females, and that higher objective knowledge was significantly linked to a higher education level.

Our objectives in the study described here were threefold:

1. To confirm the significant positive link between objective and subjective wine knowledge established by Forbes, Cohen and Dean (2008) in another national market, and in an online environment
2. To explore the convergent validity of the short subjective wine knowledge scale used by Forbes, Cohen and Dean (2008) by adding a longer, more established subjective scale from the literature to our questionnaire.
3. To determine the effects of age, gender wine consumption, education, and also the number of wine blogs read, on objective wine knowledge.

2. METHODOLOGY

We investigated our research questions by developing and fielding an online survey. The survey featured four sections. The first section included the Forbes, Cohen and Dean (2008) four-item scale designed to measure each respondent's subjective wine knowledge, the items for which are shown in Table 1. The second section featured the Forbes, Cohen and Dean (2008) objective measure of wine knowledge, a series of five multiple choice questions each featuring five choices, of which only one was correct (see Table 2). In the third section respondents completed a nine-item scale again measuring their subjective wine knowledge (also shown in Table 1). This we adapted directly from Flynn and Goldsmith's (1999) general short measure of subjective consumer knowledge. The final section collected additional variables, which included age, gender, number of wine blogs regularly read, education level, and number of bottles of wine consumed in an average two week period.

The survey was conducted using Amazon.com's MTurk marketplace for respondents. From a social science research perspective, MTurk is an online marketplace that enables researchers (known as Requesters) to outsource "work", normally in the form of questionnaire completion. Requesters are able to post tasks known as HITs (Human Intelligence Tasks), such as completing a survey, and respondents or "workers" (called Providers on MTurk) can then browse among existing tasks and complete them for a monetary payment. In order to stratify samples, the researcher is able to specify that Workers (respondents) fulfill qualifications before engaging a task, and they can set up a test in order to verify the qualification. They can also accept or reject the result sent by the worker, which reflects on the worker's reputation. While workers can have an address anywhere in the world, we specified that the respondents to this study should be based in the USA. Researchers have also given attention to the feasibility of MTurk to recruit subjects and respondents in the social-science experiments (Paolacci, Chandler, and Ipeirotis, 2010; Buhrmester, Kwang, and Gosling, 2011). In the USA at least, the general conclusion to date is that while the samples of respondents obtained through MTurk do

not perfectly match characteristics of the U.S. population, they are also not wildly inaccurate or skewed. The cost of MTurk is generally much lower than other means of conducting surveys. We offered respondents \$1 to complete our survey.

The presentation of items within each scale was randomized to reduce order effects. Several questions measuring respondent attention were included to ensure reliability of the resulting data. The survey was administered to wine drinkers and 218 consumers completed the survey. Data from 31 respondents was discarded due to evidence they were not paying attention while completing the survey. As a result, a useable sample of 187 respondents was retained. Our sample included 73 males and 114 females. More detailed sample characteristics are reported in Tables 3-5.

Both of the subjective wine knowledge scales loaded onto a single factor and exhibited satisfactory Cronbach's alphas. As a result each were summed for analysis. For the test measuring objective wine knowledge each question was assessed as either correct (1 point) or incorrect (0) and summed across the five questions. The mean of the test was 1.91 with a standard deviation of 1.137. Regression analysis using SPSS was employed to investigate the effect of subjective wine knowledge on objective wine knowledge.

2.1 Findings

To investigate the relationship between the three measures employed in the study we first calculated correlations between each measure. These are reported in Table 6 and show a strong correlation between the two subjective wine knowledge scales. Interestingly, we note a stronger correlation between objective wine knowledge and the 9-item subjective wine knowledge scale than the 4-item version. This suggests that the order of scales might have had an impact, with respondents learning from their experience responding to the objective wine knowledge test. We also ran two regressions to shed light on the issue. Two regressions were in light of multicollinearity concerns due to such strongly correlated variables. We first regressed the 4-item subjective wine knowledge scale on objective wine knowledge, explaining a significant proportion of variance in objective wine knowledge ($R^2 = 0.195$, $F(1, 186) = 7.302$, $p < 0.008$). The 4-item subjective wine knowledge scale significantly predicted objective wine knowledge ($b = 0.044$, $t(186) = 2.702$, $p < 0.008$). We next regressed the 9-item subjective wine knowledge scale on objective wine knowledge yielding a similar, although stronger, pattern of results ($R^2 = 0.293$, $F(1, 186) = 17.377$, $p < 0.000$; $b = 0.008$, $t(186) = 4.169$, $p < 0.000$). The larger R^2 of the second regression is consistent with the correlations indicating a stronger relationship between the 9-item subjective wine knowledge scale that was administered after the objective wine knowledge test. This suggests respondents were better able to judge their own level of wine knowledge following completion of the objective wine knowledge.

In a second regression we next explored factors predicting respondents objective knowledge. Since it had the strongest relationship with objective wine knowledge the 9-item subjective wine knowledge scale was investigated. Age, gender, number of wine blogs regularly read, education level, and number of bottles of wine consumed in an average two week period were also included in the regression. Together these six variables explained a significant proportion of variance in objective wine knowledge ($R^2 = 0.508$, $F(6, 186) = 10.424$, $p < 0.000$) and results are summarized by variable in Table

7. Higher subjective wine knowledge, higher age, higher education, and being female are all significant predictors of higher objective wine knowledge levels. Higher consumption of wine in an average two-week period and a greater number of wine blogs read were not significant predictors of higher objective wine knowledge. The same regression was also conducted employing the 4-item version of the subjective wine knowledge scale rather than the 9-item version. Results paralleled those reported, with no changes to the pattern of significance.

Table 1. Measurement Scale Characteristics

Scale	Subjective Wine Knowledge Scale (4 item) Forbes, Cohen and Dean (2008)	Subjective Wine Knowledge Scale (9 item) Flynn and Goldsmith, 1999
Cronbach's Alpha	0.890	0.929
Scale Statistics	Mean: 15.83 Standard Deviation: 5.076	Mean: 33.66 Standard Deviation: 10.187
Items	I don't understand much about wine. (R)	I know pretty much about wine. (R)
	I am confident in my knowledge of wine.	I know how to judge the quality of a bottle of wine.
	Among my friends, I am the wine expert.	I think I know enough about wine to feel pretty confident when I make a purchase.
	I know less about wine than others do. (R)	I do not feel very knowledgeable about wines.
		Among my circle of friends, I'm one of the "experts" on wines.
		I have heard of most of the new wines that are around.
		Compared to most other people, I know less about wines.
		When it comes to wine, I really don't know a lot.
		I can tell if a bottle of wine is worth the price or not.

Note: All scale items measured using 7-point Likert scales anchored by Strongly Agree and Strongly Disagree.

Table 2. Objective Wine Knowledge Test Questions

Question	Answer Choices (Correct choice in <i>italics</i>)
-----------------	--

Which of the following is a red wine?	Riesling Chardonnay <i>Merlot</i> Sauvignon Blanc Don't know
A peppery character is most associated with which wine?	Merlot <i>Shiraz/Syrah</i> Semillion Pinot Noir Don't know
Which grapes are never used to make Champagne?	Chardonnay <i>Riesling</i> Pinot Noir Pinot Meunier Don't know
Which is not a famous French wine region?	Bordeaux Champagne <i>Rheingau</i> Alsace Don't know
Which is the name of New Zealand's famed Sauvignon Blanc region?	Kapiti Hawkes Bay Waipara <i>Marlborough</i> Don't know

Table 3. Sample Characteristics: Wine Consumption

Bottles per Two-Week Period	Frequency
1 or less	95
1 to 2	58
3-4	23
4+	11

Table 4. Sample Characteristics: Education

Education	Frequency
Less than high school	1
High school /GED	15
Some college	56
2 year college degree	22
4 year college degree	68
Masters	23
Doctoral	2

Table 5. Sample Characteristics: Age

Age Group	Frequency
18-25	47
26-34	71
35-54	55
55-64	12
65+	2

Table 6. Correlations Between Measures

	Subjective Wine Knowledge Scale (4-item)	Subjective Wine Knowledge Scale (9-item)	Objective Wine Knowledge Test
Subjective Wine Knowledge Scale (4-item)	1		
Subjective Wine Knowledge Scale (9-item)	0.870**	1	
Objective Wine Knowledge Test	0.195**	0.293**	1

*Note: All correlations significant at the 0.01 level (2-tailed) are denoted with ***

Table 7. Regression Results

Variable	Beta	Standardized Beta	t	Significance
Subjective Wine Knowledge Scale (9-item)	0.030**	0.265**	3.697	0.000
Age	0.222**	0.181**	2.739	0.007
Male	-0.523**	-0.225**	-3.472	0.001
Bottles of Wine Consumed in Two Weeks	-0.123	-0.097	-1.381	0.169
Education Level Achieved	0.218**	0.242**	3.628	0.000
Number of Wine Blogs Regularly Read	0.121	0.071	0.995	0.321

*Note: All beta coefficients significant at the < 0.05 level are denoted with ***

In summary, this study confirms the significant positive link between objective and subjective wine knowledge previously established by Forbes, Cohen and Dean (2008),

this time, in another national marketing, and in an online environment. It also give evidence of the convergent validity of both the short subjective wine knowledge scale used by Forbes, Cohen and Dean (2008) as well as the longer, more established subjective scale of Flynn and Goldsmith (1999), as the scores from these two scales correlated highly and significantly. Like Forbes, Cohen and Dean (2008), this study also found that higher age, and higher education are significant predictors of higher objective wine knowledge. Unlike these authors however, we found the opposite effect with respect to gender, namely that being female significantly predicted higher objective wine knowledge, and we were also unable to find a significant relationship between wine consumption and objective wine knowledge. New to this study, we were also unable to establish a significant relationship between the extent of wine blog readership and objective wine knowledge.

3. DISCUSSION

This research is limited in that it utilized an online survey, so that all of the drawbacks customarily associated with internet based studies are present here. While we strove to prevent any form of respondent bias in using MTurk, it is unlikely that we were able to eliminate all of this. Furthermore, we used an objective wine knowledge scale developed in New Zealand, and this may not be as appropriate in a North American setting.

The results presented here also present avenues for future research. First, the shorter subjective knowledge scale of Forbes, Cohen and Dean (2008) performs quite well from a psychometric perspective. It could be used with confidence in future work, particularly where subjective wine knowledge is not a predictor variable, but one of a number of criterion variables being studied. The marked differences in gender effects between this study and previous work are also deserving of future work, and raise a number of questions: Are there genuinely differences between New Zealand and US wine consumers, or were these due to some random error? Was the finding in this study perhaps due to a sample bias induced by the MTurk user profile, where it is a known fact that females outnumber males? As wine blogs become more and more common, and as access to the websites of wine tastemakers such as Robert Parker and Jancis Robinson become ever more expensive, researchers might also want to study them and their effects on wine knowledge more carefully.

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LESSONS LEARNED FROM AN INTERNATIONAL RESEARCH PROJECT ON WINE CONSUMPTION

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Purpose: Hungary and Germany belong to the traditional wine growing and consuming countries in Europe. Although there are only some hundreds of kilometres distance, the consumption structure is completely different. The aim of this pilot study was it to compare wine consumption of these two countries and summarize the experiences of this cross-cultural study.

Design/methodology: A convenience sampling method, an online survey was used to collect data about the wine consumption. In Hungary 5733 and in Germany 3060 wine drinkers completed the questionnaire.

Findings: As expected, there are significant differences between Hungarian and German wine drinkers. Germans, for example, prefer dry and white wines and are more open to the foreign ones. They prefer shopping wine directly from the winery or in supermarkets. As for the judgment of wines, we can also see diversities: they do not consider wine healthy, they give less wine as a present and they state that it is a drink of special occasions. The results showed that the historical background (Hungary was a communist country for 40 years, marked by lower quality wine production) still has its influence. Generational diversities make also an interesting point regarding the future of wine production, since young people can indicate the future wine consumption habits.

Practical implications: The geographical distance made communication slightly difficult, there was a lack of personal contact and common inspirational conversations. At the same time, discussing the material was easy on the digital platform – we also used phone calls to make communication smoother. It is an important lesson, that in the online world it is possible to complete a successful research with minimal budget. But we have to be aware that the sample does not represent the Hungarian or German population as a whole, and in the list of priorities of researchers this survey can easily go down, which might lead to the protraction of the project.

Key words: wine consumption, Hungary, Germany, cross-cultural

1. INTRODUCTION

More and more surveys are held recently on wine consumption habits. But these are arranged mostly in an ad-hoc manner on one hand, using different methodology on the other. So there are not any generally acknowledged solutions, that is the reason why the international cooperation provided challenge and also a good opportunity. For this reason we believed it would be interesting not just to publish the results, but to introduce the planning and the execution of the survey as well.

The research was established with the cooperation of teachers of the German Geisenheim University and the Hungarian Budapest Business School, so we examined primarily these two markets. When elaborating the methodology, it was both helpful and difficult that surveys were already arranged previously in Germany and in Hungary, too: we had the list of questions, but at some points they showed diversities. At the same time, the positive result of the harmonization was the widened circle of questions.

Due to the lack of research budget, we used so-called convenience sample (Malhotra & Birks, 2007) technique with the help of an online questionnaire. Our objective was to reach a relatively large sample number.

Literature on the subject (wine consumption and the Generation Y) is limited, and does not deal with the comparison of different countries. Australia and New Zealand are sometimes examined together (Treloar, Hall and Mitchell 2004, Hall and Treloar 2008), but the studies do not focus on regional differences. Many papers also pay attention to wine tourism (Treloar, Hall and Mitchell 2004, Getz and Carlsen 2008), and an interesting point is analysing cellar door tastings. Hall and Treloar 2008 concentrate on whether charging a tasting fee at tastings or not, Nowak, Thach & Olsen 2006 find that positive experience at cellars can lead to long-term, profitable relationships and higher levels of brand equity for the winery.

Thach & Olsen (2006) examined the perceptions and attitudes of the Millennial generation regarding wine. This segment state that wine is good for social occasions, however they think the beverage is not focused on their generation and needs. Getz and Carlsen (2008) also found that wine is a source of (hedonistic) pleasure and very much a social experience especially among young consumers. Concerning our work, Treloar, Hall and Mitchell (2004) highlight the point that the Generation Y market shows potential for growth in terms of wine consumption. So it is worth examining whether European youngsters have the same potential.

2. METHODOLOGY

2.1 Objectives

In Hungary, several surveys were made on wine consumption and wine purchase habits (GFK 2008, NRC 2013a, Bormarketing Műhely 2013), however, the comparison of the results seems to be a challenge due to the different methodology used in the surveys. Unfortunately, surveys are usually arranged on an occasional basis, so longitudinal analysis is limited. However, it is important to put the results into context, for what an international comparison offers a good opportunity. Our primary objective was to get to know and compare the Hungarian and the German data on wine consumption. Our main hypothesis was that Hungarians and Germans have different wine consumption habits. Later on, we supplemented this with another hypothesis: the Generation Y sees and drinks wine differently than older people (age group 35+).

In Germany, regular surveys are held on non-commercial wine consumption. Data collection is made on a country-based sample, with personal questioning and constant methodology (Hoffmann & Szolnoki, 2012; Springer AG, 2012). Unfortunately, we did not have the chance to join this research, but it was possible to arrange a commonly elaborated questionnaire using

an online survey both in Hungary and Germany. Data collection was in November and December 2012 in both countries. Organising, harmonizing the joint survey and comparing the results offered us a great opportunity – as well as numerous challenges.

2.2 Questionnaire

In order to make the results quantifiable, both surveys were made using a questionnaire. Most questions referred to similar fields (frequency of consumption, most preferred wine types, purchasing habits etc.), but some of them varied. Given that both parties have already made several similar surveys in the past, the major difficulty was that in order to make temporal comparison possible, it was practical to stick to the questions used in previous surveys, but at the same time, the Hungarian and German research needed harmonization. We had the possibility to use individual questions in the surveys, but the platform had to be the same. Next, we would like to present the common and different questions of the questionnaires.

The categories of the question that regarded the frequency of wine consumption were almost the same, only the wording needed standardization. We found the same situation regarding the place of consumption. Previous German surveys widely used the percent scaling technique (Malhotra & Birks, 2007), for example in the aspect of the place of consumption, which ended up being a good solution not just in this case, but regarding many other questions too. When examining the preference of wine colours and sweetness level we used a 5-grade scale. The ratio of consumption of domestic and foreign wines was a relevant respect in both surveys. Just like in previous German surveys, questions on opinion on wines were set also in this research, using a 5-grade scale this time, too. The survey asked questions on aspects, place and price of wine choices as well.

The poll, however, showed diversities, too. Only the Hungarian survey featured questions on the goal and quantity of wine purchase, as well as on what kind of wine drinker the consumer considers himself. Due to the limited content, in the following we will not analyse these diverse topics.

As we can see in the previous paragraphs, when putting together the survey, it was inevitable to make a compromise. The Hungarian questionnaire, apart from the personal data, contained 19 questions on the topic, the German one, however, listed only 16 of them. Because of the long specifications and sub-questions, the survey could be completed in 10 minutes.

2.3 Budget

Just like in the case of previous surveys, we did not have budget for this one either, that is why we could use a self-completion online questionnaire exclusively. That is why our results cannot relate to the whole population, but we have to emphasize that at the time of the data collection the Hungarian internet penetration was 63% (NRC 2013b), the German one was 75%, so the bigger part of the population had the opportunity to get in the sample. Additionally, this group is more active, has a higher status, so makes an important platform of quality wine consumption (Szolnoki & Hoffmann, 2013).

2.4 Sample

At the previous research, in Hungary, a Hungarian wine website (Borászportál) supported us by publishing the poll on its own media inventories (website, Facebook page, newsletter) and by involving its partners (Startlap, Webbeteg, Linkcenter, several databases) in the questionnaire. Finally, we reached a sample of 5733 individuals – however, we had to separate the respondents arriving from the wine-related sites in order to avoid distortion of the results. Borászportál offered presents to the people that completed the questionnaire, what hugely increased the willingness of answering.

In Germany, students of Geisenheim University helped find the potential respondents and we managed to reach 3060 people. Involving the students, however, resulted the youth to be overrepresented in this sample. That altered the spotlight of the survey, focusing on the Y generation (Müller et al., 2011). Both samples included over 1000 people from the age group 18-35 (in Germany 1246 and in Hungary 1896 individuals), so they became suitable for the comparison. Apart from that, characteristics of the younger generation could easily be compared to the ones of the older. (To make things simple, in the paper we will commonly use the terms „the younger” and „the older”.) Ratio of gender was relatively steady, but the distinction regarding the place of residency and the average income was not suitable due to the different country-specific factors. The data collection was arranged in the last months of 2012.

3. RESULTS OF THE RESEARCH

3.1 Wine consumption

It is noticeable that regarding the frequency of wine consumption no huge difference can be pointed out between the Hungarian and the German youth. 3-4% of them drinks wine on a daily basis, 51-53% drinks at least once a week. As for the people above 35, the results are not that uniform. It is obvious, that in Germany older wine consumers drink more often than in Hungary: 11% on a daily basis, 41% (!) several times a week. In Hungary, these values are 10% and 28%.

3.2 Preferred wines

As for the preference of wine types we figured that Germans prefer white, while Hungarians prefer red wines. At this point we have to note that sales facts and figures in Hungary do not confirm the consumption of red wines, given that 2/3 of the domestic production is white wine, and import is unable to compensate that ratio. In this case, the willingness of consumption, the trendiness can be pointed out, and it is observable that Hungarians consider red wine more „noble”. We can state that in both countries the younger consumers prefer white and rosé wines, while the older ones drink more likely red wines.

Table 1: Preference of white, rosé and red wines

	White wine	Rosé	Red wine
DE 18-35 (N=1896)			
Average %	57.5	14.6	27.9
Deviation	26.1	16.7	25.3
DE 36+ (N=869)			
Average %	50.3	10.2	39.5
Deviation	27.9	13.7	27.5
HU 18-35 (N=1247)			
Average %	32.9	20.7	46.4
Deviation	25.4	19.3	27.4
HU 36+ (N=4216)			
Average %	30.6	17.4	52.3
Deviation	26.3	26.6	28.8

Regarding wine sweetness, we can see significant differences between Hungarian and German respondents. German consumers – regardless their age – like dry and medium-dry wines more than Hungarians. In Hungary, younger wine drinkers like sweet wines the most

(average rate 3.6 on the 5-grade scale), and dry wines the least (average rate 3.0). Comparing the two average rates, however, a relatively small difference can be tracked. We can see this phenomenon more in the older age group, where the average preference of sweet wine is 3.3, while the preference of dry wines is 3.0. It is dry wine that divides the respondents the most, with the average deviation rate of 1.6 and 1.7, followed closely by the figures of sweet wine. Data show that as for the judgment of dry wines, no significant differences can be specified between younger and older wine drinkers. Both age groups reached an average of approximately 3.0. However, regarding the sweet wines, significant difference can be spotted between younger and older consumers. German respondents evidently prefer dry wines, and there is a notable difference between age groups, too (the younger people's dry wine preference showed an average rate of 3.5 while the older's one a rate of 4.2; as for the sweet wines, the ratio was 2.8 and 1.9). The German respondents' deviation rate was much lower, which refers to a more homogenous respondent structure. The discrepancy between the two countries can be a result of the Hungarian history, where wine quality was not a major point under communist era, and led to the high proportion of sweet(ened) wines.

3.3 Origin of wines

Hungarians seem to connect wine drinking with local patriotism: by their own admission, 90% of the time they drink Hungarian wines. However, this figure cannot be supported by sales data, because importation of foreign wines is more than 10%. Besides, this result shows an absolutely positive judgment on domestic wines. In Germany, this ratio is a little below 70%, but this result can be queried, too, given that current statistics show a ratio of 45% (DWI, 2013). In both countries, consumption of European wines largely outweighs consumption of new world wines. The difference between age groups is negligible.

As for foreign wines, Italian, French and Spanish wines are preferred in both countries. Apart from German young people, who prefer the French origin, the most popular wines come from Italy. In Europe, Austrian and Portuguese wines must be taken into consideration as well (the former rather in Germany, the latter in Hungary). From the new world respondents prefer wines from South Africa and from Chile.

Table 2: Most preferred foreign wines (consumption %)

	France	Italy	Spain	Austria	Portugal	South Africa	Chile
DE 18-35 (N=1896)	41.5	36.4	26.1	11.8	7.6	12.7	7.1
DE 36+ (N=869)	43.0	47.5	32.1	12.4	6.7	16.5	10.4
HU 18-35 (N=1247)	33.2	39.3	31.6	9.3	9.4	3.8	9.5
HU 36+ (N=4216)	31.1	43.1	35.1	8.3	11.8	6.4	10.3

3.4 Purchasing wine

Regarding the place of wine shopping, a great difference can be tracked in the two countries. The most preferred location of the German participants to buy wine are cellar doors, while Hungarians like super- and hypermarkets – in both cases with a ratio of approximately 50 %. German young people prefer supermarkets secondarily and discount stores tertiary, while the older consumers do their shopping in wine shops on the second, and supermarkets on the third place. However, we have to take into consideration that the poll cannot be accepted as representative, because by using an online method, we reach an „extraordinary” segment, which is more interested and professional in wines than the average. According to official statistics, Germans do purchase 35-35% of their wine in discount stores and supermarkets, and direct shopping is approximately only 15% (Szolnoki & Hoffmann, 2012). In Hungary cellar doors own the second, and wine shops the third place. We can see clearly that age

influences the location of shopping, because in both countries, supermarkets are preferred by younger, while wine shops by older wine drinkers.

Table 3: Place of wine shopping

	wine shop	wine-cellar / vineyard	super- / hypermarket	discount stores	online	event	wine tavern	abroad
DE 18-35 (N=1896)	12.0	44.3	19.6	18.1	2.9	ns	ns	3.1
DE 36+ (N=869)	14.2	55.4	11.6	11.3	3.6	ns	ns	3.9
HU 18-35 (N=1247)	10.8	17.4	51.9	7.6	1.9	5.9	3.4	0.9
HU 36+ (N=4216)	11.5	23.7	47.7	7.8	0.8	5.3	2.1	1.1

As for the money spent on wine, younger people are willing to pay more for a bottle (except for the German ones for everyday consumption, because their values match the values of older consumers). In Hungary, the younger wine drinkers are inclined to pay approximately HUF 1000 (EUR 3.3), while older consumers HUF 700 (EUR 2.3) on everyday consumption. On special occasions, these rates are HUF 2300 (EUR 7.6) and HUF 1700 (EUR 5.6). In case of presents, the participants reported HUF 2300 (EUR 7.6) and HUF 1900 (EUR 6.3). In Germany, however, these rates are much higher, but ratio is around the same as in the Hungarian sample.

It might seem surprising that younger people – as they state it – spend more on wine in all three categories than the older segment. We assume this can be explained by the fact that the younger generation buys wine more rarely than the older one, so they do not have a realistic relation to the product, at least regarding the price of the wine. Our statement can be confirmed because the place of wine shopping in the case of the younger people refers evidently to the cheaper category.

Table 4: Average wine prices on different occasions (HUF/0,75 l)

	Everyday consumption	Special occasion	Present
DE 18-35 (N=1896)	1770*	4481*	3659*
DE 36+ (N=869)	1773*	3861*	3452*
HU 18-35 (N=1247)	990	2346	2326
HU 36+ (N=4216)	714	1713	1893

* exchanged from EUR to HUF on the current rate

4. SUMMARY, SUGGESTIONS

The international research brought us useful observations. Considering the Hungarian data we can state that the survey supported the results of previous studies regarding the frequency and place of wine consumption, the characteristics of preferred wines and the manner of wine shopping, as well. This statement can be held even if some questions were asked in a slightly different way.

As we expected, German data were slightly different from Hungarians: Germans, for instance, prefer dry and white wines and are more open to the foreign ones. They prefer shopping wine directly from wineries and in supermarkets. As for the judgment of wines, we can also see diversities: German wine drinkers do not consider wine healthy, they give less wine as a present and they state that it is a drink of special occasions. So we accepted our first hypothesis, that Hungarians and Germans have different wine consumption habits. However, both respondent groups like wine and think that it brings people together.

Besides national influence, age influence is widely represented in the results, these can easily be separated. The younger generation (18-35 years old) drinks less wine and prefers sweet ones. They rather drink wine on events, and also the highest ratio of rosé consumption can be tracked in this age group. Besides, the place of wine shopping shows a different distribution regarding the answers of the older consumers. So our second hypothesis was also accepted.

Due to the different background, it was a great challenge organising a research project like this, however, it brought important results in a research-methodology point of view. The geographical distance made communication slightly difficult, there was a lack of personal contact and common inspirational conversations. At the same time, discussing the material was easy on the digital platform – we also used phone calls to make communication smoother. Fortunately, language problems hardly set up any obstacles in the process. Personal encounters would be beneficial in these cases, but if it's not possible, longer online conversations can be helpful, where attendants can present their points of view with full details, and they can discuss them together. This can be inspirational regarding the following processes as well.

Different research platforms resulted careful planning, more precise methodological background, more widespread data survey and comparing analysis. Different approaches of the countries had to be taken into consideration, due to what we had to make a compromise as well.

It is an important lesson, that in the online world it is possible to complete a successful research with minimal budget. But we have to be aware that the sample does not represent the Hungarian or German population as a whole, and in the list of priorities of researchers this survey can easily go down, which might lead to the protraction of the project. That is why it is highly recommended to set up a schedule, even if external circumstances do not make this necessary. The present research was completed approximately in a year and a half, six months for preparations and another six months for analysing the results.

Despite the long preparatory work there were certain aspects which became evident only after arranging the data survey. Because of the lack of budget, the samples were different in the two countries, that is why the direction of the research was later altered to examining the different generations. This way, researchers had to be more flexible than usual.

We can state that even if the field of the research seemed to be simple, we cannot use a generally accepted methodology, so we suggest that marketers unify the questions, so they can easily compare results and optimise research costs.

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Understanding the wine consumption behaviour of Generation Y in Italy

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Abstract

◦Purpose

The study aims to gain a better understanding of the wine consumption behaviour by the Italian Generation Y. The theory of planned behaviour as formulated by Ajzen (1991) is applied to evaluate the cognitive factors determining the decision-making process in wine choice. Four research hypotheses are tested and positively confirmed. The study advances in the knowledge of wine drinking behaviour, because it includes the psychological construct of perceived behavioural control in the model.

◦Design/methodology/approach

The analysis was divided into two phases: an exploratory phase and a phase of survey by questionnaire. The questionnaire was online submitted by 140 young people from Veneto and Tuscany, two of the main traditional Italian wine producing regions.

◦Findings

The TPB framework showed a good correlation between behaviour and behavioural intention. Attitude, subjective norm and perceived behavioural control influence the intention to consume wine with almost equal power. The favourable predisposition towards wine comes from its healthy, hedonistic, relaxing and cultural connotations rather than from fun, celebrations, food matching or production process. The family contexts and the partner company generate positive situations, and young consumers partially perceive difficulties in wine choice, without being able to identify the causes.

◦Practical implications

The results of this study allow for the identification of the psychological traits to be actioned by wineries to improve the communication with young individuals. The deepening of the cognitive dynamics of young individuals in the decision-making process can provide educators and public decision-makers with helpful information to counter high-risk alcoholic beverage consumption patterns.

Key words: Generation Y, theory of planned behaviour, consumption behaviour, behavioural intention, young consumer

1. INTRODUCTION

The decline of wine consumption in traditional consumer countries drives new dynamics in the international market, and the continuing search for new markets and new consumers by producers of the Old World of wine. This search is twofold: on the one hand, wineries adopt strategies to enter foreign markets; on the other hand they are trying to stimulate the attention of new consumer targets in domestic market.

Changes in contemporary society have caused a different relation between young people and wine than the past, and young people from the Old World represent a novice market segment for wine industry. This segment shows different consumption behaviours and attitudes towards the product from the previous generations; these peculiarities have not been well investigated yet, and their future predictions are uncertain. Since wine consumption behaviour by young people from Mediterranean countries, such as Italy, has been converging towards less healthy pattern and the consumption of alcoholic beverages is increasing, wine choices have become a social concern. This translates into subjective norms that influence the individual decision-making process (Calafat et al., 2011; Graziano et al., 2012). As consequence, product familiarity, risk sensitivity and motivations of young people are strongly different from those of the previous generations.

As synthesized by Valentine and Power (2013), young consumers of the so called “Generation Y” are trustful, more tolerant and better travelled than their parents, supportive of social causes, individualistic, technologically savvy, sophisticated, group-oriented and consider themselves to be “cool”, with a strong sense of identity.

Concerning wine purchasing, research about Generation Y mainly comes from the New World. Treloar et al. (2004) point out that wine consumption is limited within young consumers, and other alcoholic beverages, like beer and spirits, are considered easier and cheaper alternatives. Thach and Olsen (2006) highlight the need of a greater wine advertising to this group, using fun, social, and relaxed settings; they recommend innovative packaging and the focus on “value” wines, taste and environmental cues as pull factors. Young consumers of the Old World mainly drink wine in social occasions with friends, during the meal time; conversely in the New World, wine consumption outside meal is preferred (Agnoli et al., 2011; Teagle et al., 2010). Inexperience leads them to seek information from friends or family and to choose on the basis of the advice of other people, the label or the shelf talkers (Atkin and Thach, 2012; Chrysochou et al., 2012).

According to Chrysochou et al. (2012), Generation Y lacks of subjective knowledge, experience and involvement about wine. However, Generation Y from traditional producing countries is often introduced to wine consumption by family in tender age and seems to be more product conscious than that of the New World, ascribing more importance to the designation of origin (de Magistris et al., 2011).

The current paper aims to gain a better understanding of the wine consumption behaviour by the Italian Generation Y. The theory of planned behaviour as formulated by Ajzen (1991) is applied to evaluate the cognitive factors determining the decision-making process in the wine choice. This research attempts to give new insights into the psychological construct of perceived behavioural control, for the first time to our knowledge.

Four research hypotheses are tested by applying the theory of planned behaviour.

H1: Attitudes influence the intention to consume wine.

H2: Subjective norms influence the intention to consume wine.

H3: Perceived behavioural control influences the intention to consume wine.

H4: Perceived behavioural control influences the wine consumption behaviour.

The results of this study allow for the identification of the psychological traits to be actioned by wineries to improve the communication with young individuals.

2. THE THEORY OF PLANNED BEHAVIOUR

Many studies apply the theory of planned behaviour (TPB) to shed light on the individual behaviour. It was developed by Ajzen (1991, 2005) from the theory of reasoned action (TRA) (Fishbein and Ajzen, 1975). The TPB analyses the behaviour and the underlying behavioural intention, namely the motivational factors of behaviour. Behavioural intention is determined by attitude, the degree to which a person positively or negatively assesses or qualifies a behaviour, and by subjective norm, which refers to the social pressure carried out by reference people or groups that a person perceives in performing or not performing the behaviour. Compared to the TRA, the TPB includes a predictor of intentions and behaviour: the perceived behavioural control (PBC) (Ajzen, 2012). This allows for the overcoming of a limitation of the TRA: it can only be applied to behaviours under people's volitional control. Many behaviours, although under volitional control in principle, can present serious difficulties in their execution that are related to non-motivational factors, such as the availability of opportunities and resources, in terms of time, money, skills or the cooperation of others (Ajzen, 2005, 2012).

Salient information, or beliefs, explains behaviour at a more basic level than that of attitude, subjective norm and perceived behavioural control. Many beliefs are available to people for all behaviours, but only a relatively small number of them is readily accessible when people choose to perform that particular behaviour. These salient beliefs are the dominant determinants of behavioural intention and behaviour (Ajzen and Fishbein, 1980).

TRA and TPB models have been broadly applied in various domains, especially in the past decade. Investigations have just begun in food and drink choice analysis. Much research has aimed at explaining and predicting the individual's decision-making process in situations involving risky behaviour, food safety, healthy eating, dietary changes from a medical, sociological or psychological point of view. To date, few studies have assumed a marketing perspective.

In the domain of beverage consumption, TRA and TPB models have investigated risky situations, such as the binge drinking phenomenon, especially in young generations. With respect to wine, only a few studies have applied the reasoned action approach to consumption behaviour (Thompson and Vourvachis, 1995; van Zanten, 2005; St James and Christodoulidou, 2011). Thompson and Vourvachis (1995) investigated the British wine drinker, van Zanten (2005) the Australian one, and St James and Christodoulidou (2011) the Californian one. They obtained different results in relation to the weight exerted by subjective norms and attitudes in influencing behavioural intention and behaviour; they are in agreement in omitting PBC in explaining wine consumption behaviour. These results initiated a debate in the *International Journal of Wine Business Research*, to which this paper aims to contribute with further insights into the analysis of the wine consumer's decision-making process.

3. METHOD

As proposed by Fishbein and Ajzen (1975), the analysis was divided into two phases: an exploratory phase and a phase of survey by questionnaire.

The exploratory phase aimed to elicit the salient beliefs, the reference people and groups and the control factors in wine consumption behaviour, which were useful for carrying out the second phase. The elicitation involved 20 respondents. As in the studies of Thompson and Vourvachis (1995), van Zanten (2005) and St James and Christodoulidou (2011), open-ended questions were used to discover (i) advantages and disadvantages in drinking wine; (ii) free associations with the action of drinking wine; (iii) people or groups that would approve or disapprove of the respondent's wine drinking; and (iv) people or groups that come to mind when thinking about drinking wine. In order to identify the salient control factors, some specific questions have been included to elicit the difficulties in wine choice and consumption. Salient information collected in the exploratory phase is listed in Table 1.

Table 1 – Salient beliefs, referents and control factors in drinking wine

Salient beliefs	Salient referents	Salient control beliefs
Wine is good for health	Family	Expensive product
Wine is sociable	Partner	Lack in product knowledge
Wine is fun	Friends	Other alcoholic beverages as alternatives
Wine is a bottle to uncork or a cup to drink		
Wine helps to relax		
Wine is a cultural product		
Wine is good with food		
Wine is pleasure		
Wine is vineyards and cellars		

The results of the exploratory phase were used to build the survey questionnaire in the second phase of analysis (Table 2).

Table 2 – Survey components and items

Theory components	Items (7-point uni-polar Likert scale)
Behaviour (B)	Wine drinking frequency
Behavioural Intention (BI)	Intention to drink wine sometime in the next month
Attitude (A)	Drinking wine characteristics Consequences of drinking wine Feelings from drinking wine
Subjective Norm (SN)	Thinking of reference people or group concerning the respondent's drinking wine Reference people or group's drinking wine in the next month
Perceived Behavioural Control (PBC)	Perception of the difficulty in buying wine
Behavioural Beliefs (b)	Perception of salient beliefs (e.g. Wine is good for health)
Outcome Evaluations (e)	Importance of each salient belief in drinking wine
Normative Beliefs (n)	Opinion of reference people or group about the respondent's drinking wine in the next month
Motivations to Comply (m)	Respondent's general will to do what reference people or group want
Control Beliefs (c)	Perceptions of salient control factors (e.g. I will have difficulties in drinking wine in the next month, because it is too expensive)
Power of Control Factors (p)	Perception of the ability to manage the control factor (e.g. The price of wine would make it difficult for me to consume it in the next month)

The questionnaire was online submitted. This study analyses a sample of 140 young people from Veneto and Tuscany, two traditional Italian wine producing regions, contacted through the social networks in December 2013. It is a convenience sample consisting of the first 140 young individuals under 26 years old, who took part in the survey. Consequently, the sample is not intended to be representative. The purpose of this paper is to offer a snapshot of the results of the first step of data gathering within a wider survey plan involving Generation Y, including

people born between 1977 and 1995. This allows the paper to focus on the youngest segment of Generation Y and to analyse the age range recognised by scholars as the period that shape the individual personality and consumption choices, remaining stable thereafter. According to Szolnoki and Hoffman (2013), online surveys showed a much more biased result towards youngsters, with higher education and lower income than the rest of the population. Given that this study is focused on the young generation instead on the whole population, the bias problems highlighted by Szolnoki and Hoffman (2013) do not occur.

4. RESULTS

The sample consists of males and females in almost equal proportion, it is mainly less than 22 years old, has a high school education and is still student (Table 3).

Table 3 – Characteristics of the sample (n=140)

Attributes	Levels	n	%
Gender	Males	68	48.6
	Females	72	51.4
Age class	Less than 18 years old	5	3.6
	18-21 years old	73	52.1
	More than 21 years old	62	44.3
Education level	High school	105	75.0
	Technical school	9	6.4
	College	26	18.6
Employment	Student	101	72.1
	Worker	34	24.3
	Unemployed	5	3.6

More than two third of the sample consumes wine in sporadic occasions or during the week end, in line with the recent consumption trend among young people, despite the respondents live in traditional producing wine regions.

The formulations proposed by Ajzen and Fishbein (1980) were applied to bring out the correlations among theory components. Each behavioural belief was multiplied by the corresponding outcome evaluation, and these products were summed. The same procedure was carried out for normative beliefs and motivations to comply, and for control beliefs and power of control factors. The items of attitude were summed instead, as were the items of subjective norm and perceived behavioural control.

Simple correlations were applied to estimate the relationships between the different theory components. As stated by Ajzen and Fishbein (1980), a correlation level greater than 0.30 is considered acceptable in this type of study, and a correlation greater than 0.50 is considered a strong relation. In this application, most of the correlations are higher than 0.50, showing the strong link between the theory components.

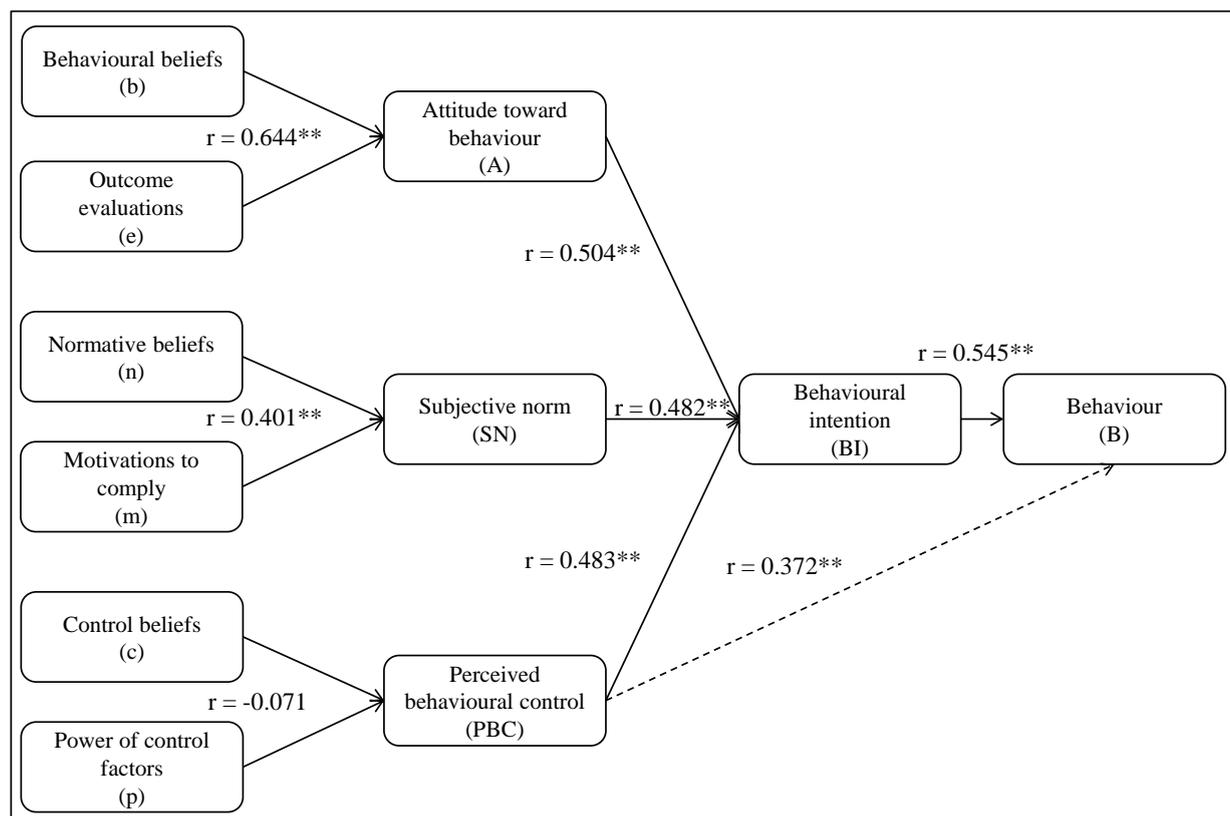
As in the other studies about wine consumption, both attitude and subjective norm influence behavioural intention to drink wine (Thompson and Vourvachis, 1995; van Zanten, 2005; St James and Christodoulidou, 2011) (Figure 1). Behavioural intention is influenced more by attitude than by subjective norm, in line with the two more recent studies. However, the power of the two theory components is not very different. This confirms that the relevance of attitude in determining behavioural intention is apparent in the personal evaluations about the behaviour, but the opinions of others in deciding to perform the behaviour is relevant as well.

The figure shows the advances proposed by this study in comparison with the previous ones, by introducing the perceived behavioural control. Perceived behavioural control has the same power as subjective norm in influencing behavioural intention for these consumers. This confirms the assumed hypothesis: also a behaviour that might seem under full individual's volitional control, like wine consumption, is affected by the control ability of choice

circumstances. Furthermore, the role of perceived behavioural control in the decision-making process is highlighted by its power to directly influence behaviour.

While attitude and subjective norm are determined by the background of elicited salient beliefs and referents, the link of perceived behavioural control with beliefs is not significant. The causes could come from a defective elicitation process by the young individuals, who are not able to identify their control factors.

Figure 1 – The determinants of wine consumption behaviour



** $p < 0.01$

Tables 4, 5 and 6 show the importance of the different beliefs concerning attitude, subjective norm and perceived behavioural control in explaining the model components.

The correlation between attitude and salient beliefs is presented in Table 4.

Health results to be the most important factor in determining attitudes toward wine in young consumers. This finding is opposed to that of van Zanten’s research (2005), in which the health properties of wine appeared to be controversial and not significant in determining attitudes. In the Mediterranean countries, wine is part of the habits: its alcohol content is often underestimated, and transgressive behaviours are associated with other alcoholic beverages. The hedonistic, sensory and cultural aspects prevail over the social and entertainment functions, as confirmed by other scholars (Marinelli et al., 2014). The correlation between attitude and food matching is a sign of a shift in consumption patterns, from meal to outside meal time (Capitello et al., 2012).

Table 4 – Correlation between attitudes and salient beliefs

Salient beliefs	Attitude
Health	0.643 **
Pleasure	0.631 **
Relaxing	0.524 **

Cultural product	0.489 **
Sociable	0.439 **
Fun	0.403 **
Food matching	0.402 **
A bottle to uncork or a cup to drink	0.352 **
Vineyards and cellars	0.340 **

** p<0.01

Significant correlations between subjective norm and the influence of reference people and groups emerged (Table 5). The judgement and behaviour of family members appears to be the most important factor for Italian young consumers. This confirms the findings of the previous studies (Thompson and Vourvachis, 1995; van Zanten, 2005; St James and Christodoulidou, 2011). The family mainly influences wine consumption, because it initiates the young individual to wine and it is the context where wine is consumed more than in other locations. The new situations experienced by young people today pose questions about the ability of the future family context to be able to transmit the interest in wine to the future generations. Friends do not influence wine consumption behaviour of young Italians, opposite of the partner. This would confirm different consumption situations for the youngest segment of Generation Y, compared to the previous generations. Wine consumption does not seem to be instigated by the company of friends as for the other alcoholic beverages (Agnoli et al., 2011), but close situations with family or the partner are preferred.

Table 5 – Correlation between subjective norms and salient referents

Salient referents	Subjective Norm
Family	0.463 **
Partner	0.356 **
Friends	0.128

** p<0.01

The correlation between perceived behavioural control and salient control beliefs allows for a new insight in the psychology of the young consumers (Table 6).

They are aware to find difficulties in discerning the product characteristics, but they are not able to understand the causes of this lack. The elicited salient beliefs have not significant correlations with perceived behavioural control, except “Other alcoholic beverages as alternatives”. However, the negative sign highlights that with the increasing of the competition with the other alcoholic beverages, the perceived control does not decrease. This might suggest that the decisions concerning wine are separated from those about the other alcoholic beverages, satisfying different motivations, contexts and companies (mostly health, pleasure, culture, family and partner for wine, while fun, outside home and friends for the other alcoholic beverages)

Table 6 – Correlation between perceived behavioural control and salient control beliefs

Salient control beliefs	Perceived behavioural control
Other alcoholic beverages as alternatives	-0.315 *
Expensive product	0.108
Lack in product knowledge	0.223

* p <0.05

6. CONCLUSION AND MANAGERIAL IMPLICATIONS

This study contributes to give new insights into the analysis of the wine consumer’s decision-making process, considering the youngest segment of the Italian Generation Y. It includes the construct of perceived behavioural control in the analysis of wine consumption for the first

time, providing explicative results on intention and behaviour. The deepening of the cognitive dynamics of young individuals in the decision-making process can provide information that helps marketing strategies of wineries, educators and public decision-makers.

The TBP shows correlation between behaviour and behavioural intention by the surveyed sample. The four hypotheses have been positively verified, confirming that the theory of planned behaviour can be also applied to study wine consumption behaviour.

Attitude (H1), subjective norm (H2) and perceived behavioural control (H3) influence the intention to consume wine, with similar intensities. Therefore, the youngest Italians seem to be favourably involved in wine consumption through the equal action of the three constructs. The analysis of the specific theory components consistently explains the perception background of young consumers.

The favourable predisposition towards wine comes from its healthy, hedonistic, relaxing and cultural connotations, rather than from fun, celebrations, food matching or production process. The family contexts and the partner company generate positive situations, and young consumers do not perceive budget constraints, difficulty in choosing the right wine or competition with the other beverages. This volitional control is confirmed with the positive verification of H4; namely the perceived behavioural control also directly drives the action of drinking wine.

Even if findings should be confirmed by a larger sample size, the marketing framework outlined by this research highlights that the young individual gives a specific function to wine in their consumption choices and lifestyle.

Aware of these characteristics, wineries should act with an educational and social function. Drink in moderation, in a close context, as “adult” choice, seems to fascinate the young consumer. These elements are also in favour of a nutrition education that should make the young individual more conscious about the health diseases from high-risk consumption patterns.

Furthermore, wineries should gear up for a wine marketing able to reach young individuals in the occasions outside home and meal time, by leverage on intrinsic cues, on packaging and on the distribution.

Finally, the recognition of the cultural aspect, which is able to differentiate wine from the other beverages, could also be important in an experiential perspective, by promoting the relationship with the winemaker, the brand and origin saliences and the cellar door initiatives. This would be in line with the policy maker’s goals focused on the development of wine sector linked to the enhancement of territorial, natural and cultural resources.

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“In Vino Veritas”—But What, In Truth, Is In the Bottle? Experience Goods, Fine Wine Ratings, and Wine Knowledge

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ABSTRACT

Purpose: Fine wines challenge the consumer to know them and form a meaningful willingness to pay (WTP) for them. Given the wine consumer’s problem of knowing what she is buying, Nelson’s (1970) idea of “experience goods” might apply—goods that must be “experienced” to be accurately evaluated. Lacking own knowledge, consumers might use expert opinion to guide their WTP. However, the evidence of correlation between expert opinion and WTP is uneven. We question whether fine wine is an experience good and whether it can be known vicariously through ratings. The idea that one can know a fine wine by buying one—like knowing refrigerators by buying one (Nelson’s example)—seems misplaced, and the experience of others, including the seller, is also of limited value.

Approach: The paper considers and critiques the expert information available to the consumer as well as other factors that complicate the consumer’s knowing what s/he will find in the bottle. It provides a detailed critique of the variety and structure of wine ratings.

Findings: The critique of wine ratings—each implicitly a weighted average score of often unidentified characteristics with unspecified weights—demonstrates the difficulty of comparing or even understanding them. That result and the philosophical problem of knowing wine raise doubt about treating them as knowledge.

Practical implications: Given the considerable expense often involved, consumers are eager to reduce their perceived risk by knowing what they are buying before they arrive at WTP for fine wine. Experts offer to fill that void, but consumers should be skeptical. The paper closes with a re-characterization of the consumer’s wine purchase decision.

Keywords: wine markets, consumer knowledge, fine wine, experience goods, expert ratings.

INTRODUCTION

A core idea in our understanding of the demand for wine is the consumer's willingness to pay--but what determines one's willingness to pay (WTP)? This question is distinct from what determines the price of a good because it focuses upon the demand side of a transaction, and price—what is offered in exchange for the good—reflects the influence of other influences such as supply and, in the case of wine, government regulation and taxation of alcoholic beverages. The economic theory of the consumer recognizes a number of influences upon WTP, and our focus is two of them: the consumer's taste for the good and the prices of related goods. That is, the requirements for a rational determination of WTP would seem to involve knowledge of the product and knowledge of related products and the prices one must pay for them.

The analysis begins with a discussion of the consumer's problem in knowing a wine as a product and of our attempts to capture consumer knowledge as a component of WTP. A primary focus of that discussion is the interpretation of expert opinions about wines which are often used as a representation of consumer knowledge in empirical studies of the determinants of wine prices, following the assumption that wine is an "experience good". This leads to the larger question of the consumer's ability to know a wine which is distinct from her access to information about it.

The question of consumer knowledge is intrinsically interesting but also bears upon a variety of other issues. One of the most important is the impact of consumers' lack of knowledge upon both the size and composition of the demand for wines, especially fine wines. One expects that a variety of factors affect whether consumers have an interest in wine—location (e.g., country), level of education, economic status, age, gender—but, perhaps surprisingly, there is no comprehensive study of that subject. Moreover, many empirical studies of wine consumer behavior draw upon "convenience samples" which have little value in providing reliable, robust evidence of consumer buying patterns (Lockshin and Corsi 2012: p. 19).

The complexity of knowing what one is buying—one of the "perceived risks" of wine purchases (e.g., Lockshin and Hall 2003: pp. 8-9)—likely suppresses demand by risk-averse consumers for relatively expensive fine wine and deters many consumers from taking a serious interest in wine or consistently buying any but the most basic wines. Among the six U.S. market segments identified in Constellation Brands' path-breaking Genome Project study of wine consumer behavior, the largest segment—about one quarter (23%)—were described as the "Overwhelmed" (Veseth 2008), and another third (34%) had limited knowledge and a limited interest in wine *per se*: the Image Seekers (20%) who see wine as a status symbol and the Satisfied Sippers (14%) who are brand loyal and see wine as little more than an everyday beverage. Those who likely have the most serious interest in wine and are perhaps willing to tackle the complexity are a small share of the market. For example, Gallup, Inc., has reported that about two-thirds of Americans acknowledged drinking alcohol in a 2012 poll, averaging about four drinks per week, but only one-third of those (so 22% of all consumers) chose wine as their preferred drink. Among those who drink wine, women are 2.5 times as likely (about 16% of all consumers) to drink wine relative to men (Saad 2012)—the remaining 6%. However, while we know little about gender differences in purchases of "luxury wines" (Lockshin and Corsi 2012: p. 18)—which would include fine wine—casual observation (e.g., attendance at live wine auctions) and some reporting (e.g., Hanson 2008) indicate that men are much more likely to be wine collectors: that does not mean that men are much more likely to be fine wine drinkers, but it suggests that this small share of the population is the one making the purchase decisions. It might be larger if wine were easier to know.

We cannot know that the fine wine market is smaller because of this component of perceived risk or, if it is, how much; but the resources spent on wine promotion and education and the prominent place of expert opinion in fine wine marketing and the effort to persuade buyers of pedigree, quality, and rarity suggests that sellers want buyers—and potential buyers—to know more or think they do. Of course, the risk may attract some buyers, but it is difficult to know the importance of this market segment—and the Genome Project did not find them.

The distinction between information and knowledge is important in the discussion that follows. We can relate the two simply by thinking of knowledge as information that the individual has processed, synthesized, and retained as true. The focus of the discussion is the examination of wine as an experience good and the related question of capturing a measure of consumer product knowledge as a determinant of WTP. This is related to a philosophical question of the identification and measurement of taste, and a brief discussion of this appears later in the paper. The analysis closes with some suggestions for next steps.

The analysis necessarily draws upon the idea of expertise. Throughout the discussion, use of the term “expert” means nothing more than someone who seems widely known and influential among consumers according to published evidence of popularity (e.g., circulation numbers for a newsletter or magazine, regular appearance over time of citations in widespread advertising).

WINE AND TYPES OF GOODS

At the heart of any transaction is the good involved (perhaps both goods involved if we allow for barter). What is it that defines the nature of a good beyond the tautological definition of that which is transacted? Because it often helps us understand the qualitative differences among various types of transactions in the marketplace (e.g., role of advertising, nature of those transacting, source of supply), economists have identified different types of goods along a variety of dimensions—for example, their relationship to changes in market parameters (e.g., complements/substitutes, inferior/normal), to the nature of the parties transacting (final goods, intermediate goods), to the capacity to confine the benefits and costs of a transaction to a single buyer and seller (public/private), and to the transactors’ information about and knowledge of the good (experience and credence goods). Moreover, beyond all these categories, goods can fall into more than one—for example, an inferior good that is a substitute for some other good.

Most of the world’s wine production falls easily into existing categories because that seems to be the primary goal in its production. “Commodity wine” is designed to be easily understood and identifiable, much like most of the beverages with which it competes such as mass market beer or soda. While it might potentially reflect some of the variations in characteristics that can contribute to the complexity of wine (e.g., differences in blends, differences reflecting changes in vintage and source), the goal is often consistency and homogeneity so that consumers know what they are buying. Some have derisively referred to it as “cola wine” (e.g., Aylward 2008).

At the other extreme of the variety of wines available, a small proportion of global production challenges consumers to know what they are buying. As with commodity wines, we have no clear or accepted definition of these wines, but we shall call these “fine wines”, following terminology often used to advertise major wine auctions (e.g., Sotheby’s, Christie’s) and appearing in some of the academic literature (e.g., Smith 2007c: 48-51). The range of wines available in a large, wine-consuming economy fall all along the spectrum from “commodity” to “fine” so the relevance of the discussion to any particular wine will be a matter of degree.

To some extent, understanding fine wines involves issues of asymmetric information (AI): the producer knows considerably more about a wine's origins, production, and final characteristics than the consumer; and the consumer hopes to learn that. Beyond that, however, some wines challenge the consumer's ability to know them and therefore to form a WTP for them based upon personal knowledge. Of course, the role of such personal knowledge depends upon one's motives for purchase. To the extent that WTP is a reflection of what one expects others to pay—that is, the return one expects from an investment rather than the utility one expects from own consumption—then external indicators that correlate highly with past value (e.g., producer, vintage, scarcity, ratings, returns on alternative investments) are perhaps most or all of what one needs to know since they represent most or all of what many others consider in making their purchases. Also, to the extent that one's utility depends upon the opinions of others whose valuation is similarly determined by external indicators rather than direct consumption—that is, Veblen or positional goods—then they (the Image Seekers?) may also affect WTP significantly.

Perhaps most challenging, however, is arriving at WTP based simply upon own consumption, that is, the enjoyment one expects from drinking what is in the bottle, presumably divorced from wine's alcoholic effect, though apparently that is not possible (Postman 2011).

Recognizing the challenge to the wine consumer's knowledge of what she is buying, some of the most careful research on determinants of wine prices has turned to Nelson's (1970) concept of "experience goods"—goods whose characteristics and quality are sufficiently costly to discover or to know through search that, in effect, "experiencing" them is the only reasonable way to evaluate them. Purchasing and using them is the cost-effective way to know them: "The consumer has a simple alternative to search: he can use experience, that is, he can determine the quality of brands by purchasing brands and then using them" (p. 327). Nelson uses examples like canned tuna fish and home appliances: "To evaluate brands of tuna fish...the consumer would almost certainly purchase cans of tuna fish for consumption...[and] determine from several purchases which brand he preferred" (p. 312). He also allows for the importance of accessing expert opinion such as Consumer Reports.

Treating wine as an experience good seems well established in the literature. In a recent survey, one researcher states flatly: "...wine is an experience good" (Storchmann 2012: 22). However, for those who have tried a wide variety of fine wines, it seems self-evident that, as a problem in determining WTP, fine wines are considerably more challenging to know than canned tuna fish and refrigerators.

How do we represent that component of WTP that reflects the consumer's innate enjoyment of the wine? A popular answer to that question in the literature is to represent wine quality—or what we assume consumers take to represent wine quality—by one or more expert opinions of the wine.

Much of the research on wine price determinants predicated upon the idea of experience goods looks at the relationship between price and some external measure of quality such as chateau reputation or expert opinion (e.g., Thornton 2013: 250-263; Hadj Ali and Nauges 2007; Hadj Ali, Lecocq, and Visser 2008): unable to know the wine before buying it, consumers use this external information to guide their WTP with better ratings correlating positively with price. However, while this information may influence WTP, it does little to improve the consumer's knowledge significantly. This may help explain why the evidence of the impact of expert opinion upon wine prices is mixed and positive correlations tend to be weak (Storchmann 2012:

24): this information may contribute little to the consumer's knowledge of what she is buying so its influence upon WTP is direct but small.

One might argue that wine consumers do not buy wines that they do not know, and their WTP reflects what they know: somehow they manage to taste a wine through friends or tastings, and those are the only wines they buy. If we limit our attention to fine wines, the proliferation of ratings, tasting notes, and “shelf talkers” and the dependence upon sales staff suggest that simply is not true. Data on the proportion of fine wine sales by consumers who have never tasted the wine are unavailable, but most—perhaps the large majority—of such transactions likely fall into that category (e.g., Thornton 2013: pp. 241-2). Given the virtually unlimited variety of fine wines and, among them, the further variability due to factors such as vintage and provenance, most purchases reflect use of something other than own knowledge to determine WTP.

With that said, what do consumers know? They may have degrees of experience with a particular producer and thus have a sense of its style, but for most transactions, the information available about what is in the bottle is often nothing more than one or more expert ratings.

Given this challenge to the consumer, perhaps instead of the fine wine transaction being perceived simply as an exchange of goods for money, it either is or should be treated as an example of service-dominant marketing (e.g., Vargo and Lusch 2004): an ongoing relationship between seller and buyer, “collaborating with and learning from consumers and being adaptive to their individual and dynamic needs (p. 6).” At least at the level of the retail transaction, for example, one can certainly see a role for this among novice wine buyers who can benefit from an ongoing relationship with a supplier who both educates the buyer and learns both her particular preferences and her willingness to experiment. Perhaps over time the knowledge exchange from the relationship reduces considerably the buyer's perceived risk of the purchase. However, the degree of collaboration needed here could be considerable and would be subject to risks and constraints of its own: the departure of the seller from the market, continued compatibility of seller and buyer, frequent enough transactions that the knowledge exchange remains fresh, the seller's own ignorance of what is in any given bottle either at the time of purchase or over time, the seller's potential conflict of interest in selling her own product.

The service-dominant model also looks toward something closer to the ultimate goal of a purchase: for example, the consumer wants not a furnace but toasty comfort during cold weather, and sellers offer the ongoing provision of that environment (p. 13). In the case of fine wine, does one want to drink a glass of red Bordeaux, or does one want to be transported in one's mind to the vineyards along the Gironde in early October? It is difficult to fit fine wine into that model where the seller targets the buyer's near-ultimate goal. Also, if the difficulty were simply the buyer learning what the seller knows, the service-dominant model would fit better, but the issue of knowledge—or ignorance—of fine wine is often shared on both sides of the transaction, and neither knows more than what the experts say.

WINE RATINGS AS KNOWLEDGE

Are such ratings a good proxy for own knowledge and, in effect, vicarious experience that drives the consumer's WTP? That seems unlikely for a number of reasons.

First, all prominent experts who produce ratings insist that one must consider the non-quantifiable tasting notes (TNs) to begin to understand the expert opinion. For example, Parker writes: “Scores, however, do not reveal the important facts about a wine...The written commentary that accompanies the ratings is a better source of information regarding the wine's style and personality, its relative quality vis-à-vis its peers, and its value and aging potential than

any score could ever indicate.” (Parker 2013). The lesson is: The TN increases one’s knowledge more than the rating. But quantifying the relationship between TN and WTP is unlikely.

The way to capture the knowledge content of a TN to identify a measurable effect upon wine knowledge is not obvious, but a reasonable approach would seem to be testing whether subjects can match wines with TNs: does this TN let one know enough about a wine that s/he knows it when s/he tastes it? The research design for such testing is challenging—for example, choosing wines that are different enough that matching a wine with a TN requires only an average level of sensory discrimination but similar enough that the matches are not obvious (e.g., not simply matching the red wine with the red TN and white wine with the white TN).

Storchmann (2012) reviews some of this research. As noted, the research design challenge is significant here, but the upshot from published research is that, among non-experts, the ability to identify wines after reading TNs is random (p. 25): the evidence is that they add nothing to our ability to know a wine. He cites the limited evidence for experts using TNs, and their success rate is only slightly better (Lawless 1984). It is important that the research on this subject is not extensive—it is not well established that TNs do not aid identification, perhaps because careful testing is likely complex and expensive—but the existing evidence is not encouraging. Also related to this is (a) the evidence of the notorious difficulty of identifying wines in blind tastings (e.g., Smith 2007c: 69-70; Robinson 2013)—experts are rarely able to identify correctly wines they have tasted before—and (b) Hodgson’s extensive research on the widespread inconsistency of judges in wine competitions (e.g., Hodgson 2009), leading to headlines such as “Wine Tasting: It’s Junk Science” (Derbyshire 2013).

One of the most vivid illustrations of the problem comes from George Taber’s reporting on the celebrated “judgment of Paris” in 1976 (Taber 2005) when the French judges famously got it wrong. In recounting Taber’s reporting, New York Times wine writer Eric Asimov captured the idea well when he wrote (2005): “‘Ah, back to France,’ one judge famously sighed after tasting a Napa Valley chardonnay, while another, sniffing a Batard-Montrachet, declared: ‘That is definitely California. It has no nose.’”

Not surprisingly, skepticism about the reliability of ratings and related TNs does not sit well with the experts. One of the central themes of Ashenfelter’s useful wine economics newsletter Liquid Assets was skepticism about expert ratings of wines and vintages (especially when new) and the implied existence of a “magic tongue” to which skepticism Robert Parker replied “That’s bullxxx!” (Ashenfelter 1993 (December: cover page)). Ironically, a prominent econometrician used that same term to describe the content of TNs (Quandt 2007).

THE VARIETY OF RATINGS

Second, the variety of available wine ratings begs the question of their capacity to capture experience. Unlike the measurement of temperature or a characteristic like bottle format (regular, magnum, etc.), the measurement of a wine’s quality is not well defined. Consider Table 1 which provides some basic information about some of the most prominent sources of wine evaluation. For example, included are popular sources of ratings of wines from the global market for many prominent US “flash sale” retail wine websites (e.g., Wines Til Sold Out (WTSO), Cinderella Wine) as well as two well-known country-oriented (France, Italy) printed wine buying guides. Table 1 includes the three most widely circulated publications cited by Storchmann (2012: 22)—the others he cites have much smaller circulation (<25,000) and, for

two of the three, are California-centric by comparison—as well as some of the most popular sources that depend much more upon online access.

They have in common that they provide a combination of numeric ratings, which allow various logical analysis (e.g., ranking, quantitative quality comparison), and assorted TNs.

Beyond that, however, they vary widely and thereby raise many issues:

- They use different levels of discrimination, ranging from a minimum of 3 quality levels to a “maximum” of 51 (plus, for all, a default category of wines that were either missing or too poor to evaluate further—a blending of reasons that is unfortunate in itself), leading one to wonder whether this is an accurate reflection of differences in ability to judge wine quality;
- The maximum number of quality levels is actually greater than indicated through the use of ranges (e.g., 89-91), plusses and minuses, fractions, and so forth.
- The scores are also subject to revision of any size in either direction (within the limits of the rating system), a weakness emphasized by Ashenfelter in Liquid Assets (e.g., September 1990).
- The source of the evaluation varies widely: some depend upon an expert individual, some depend upon a nominally stable “committee” of named experts, some depend upon a nominally stable anonymous committee, some depend upon an anonymous committee that may vary from location to location and vintage to vintage (perhaps even day to day—details are not available). Unless committees are either stable or large enough to represent the population reliably (they are not), then consistency in any committee-based evaluation is unlikely.

<u>Ratings Source</u>	<u>Access</u> (O/P/B)	<u>Range of Ratings</u>	<u>Wines Rated</u>	<u>Circulation (P) and/or</u> <u>Subscribers/Users (est.)</u> <u>(date)</u>	<u>Comments</u>	<u>Source (as of 3 June 2013)</u>
Cellar Tracker	O	NR; 0 through 100?	All	268,000+ (3 June 2013)	Consumer-submitted tasting notes, often with rating	http://www.cellartracker.com/default.asp
Decanter	B	10 through 20	All	40,000/mo. + online (CY 2012)	Stable in-house panel	http://www.bordoverview.com/?q=Decanter http://www.ipcadvertising.com/ipc-brands/decanter
Gambero Rosso	B?	1 through 3	Italian	?	Territorial panels, final panels	Website unavailable
Guide Hachette	P	0 through 3	French, some Swiss, Lux.	?	Local panels	http://www.hachette-vins.com/
International Wine Cellar (S Tanzer)	O	70 through 100	All	?	Author and designated others do all tasting (e.g., Josh Reynolds)	http://www.wineaccess.com/expert/tanzer/newhome.html
Jancis Robinson	O	10 through 20	All	?	Author and designated others do all tasting (e.g., Julia Harding)	http://www.jancisrobinson.com/
Wine Advocate (R Parker)	B	50 through 100	All	50,000/bimo. + online (CY 2012)	Roster of experts, each with region of expertise (e.g., Anthony Galloni)	https://www.erobertparker.com/info/WineAdvocate.asp Storchmann 2012
Wine Enthusiast	B	80 through 100	All	108,299 + online (May 2010)	Tasting panels	http://winemag.com/PDFs/2011 Media Kit/ 2011 Wine Enthusiast Reader Demographics.pdf
Wine Spectator	B	50 through 100	All	391,667/mo. + online (CY 2011)	Tasting panels	http://www.magazine.org/insights-resources/research- publications/trends-data/magazine-industry-facts-data/ circulation-trends

The widely varying quality scales demonstrate the level of our ignorance. It seems likely that, given 100 wines of some general type (e.g., red, white, sparkling), most consumers would be able to divide them into 4-5 categories: certainly 2-3—like or dislike or indifferent—and then perhaps 1 more between indifference and each of the endpoints. If we turn to the literature on

consumers' ability to discriminate, then the widespread use of the Likert scale suggests 5 or 7 categories and pain research suggests 11 (e.g., Farrar et al. 2001). Almost half of the sources in Table 1 limit themselves to 11 or fewer categories.

Adopting a scale of 20 to 100 or more degrees of discrimination may be good for marketing—it suggests a remarkable capacity to discriminate—but there is no evidence validating it, and a lack of replication and validation is a structural weakness for all of these sources. No one from any of these sources has ever been able to replicate the original scores assigned by tasting blind the same wines again, assigning a rating, and checking the consistency of the latter score with the former. Imagine how persuasive such replication and validation would be; its absence from the marketplace says something about the likelihood of its ever occurring. The notes from some sources such as Wine Spectator that a wine was tasted one or more additional times “with consistent notes” represents an implied acknowledgement that such replication and validation would be compelling—but they do not represent replication and validation.

The impression from this is not one of precision and consistency. It is, instead, that the vacuum—the absence of knowledge—attracts attempts both to influence consumers and supply the knowledge that consumers would value and perhaps be willing to purchase. Consumers are certainly reluctant to accept the difficulty of knowing what is in the bottle: they want TNs and ratings to be important, especially for more expensive wines, because that is all they have. As with the knowledge itself, we cannot identify some shortfall from a maximum attainable that entrepreneurs will attempt to fill, but the existence of these resources also does not indicate that anyone knows much more with them than without them.

A concern hidden in this information is exactly what lies behind the construction of the ratings produced. What is the model that experts follow, or act as if they follow, in producing a wine rating?

WINE RATINGS AS WEIGHTED AVERAGE SCORES (WAS)

All well-established wine ratings are single numbers. Considering the content of the notes that often accompany them, it would seem that a rating is actually a weighted average of the scores of a wine along a variety of dimensions. It could be used as an index number—“a statistic which assigns a single number to several individual statistics in order to quantify trends” (<http://mathworld.wolfram.com/IndexNumber.html>) --but that use of ratings has not emerged. To the extent that wine experts explain their methods, very few indicate explicitly that they are providing a weighted average score (WAS), but a model of wine rating would suggest that they almost necessarily are. That an expert is acting as if s/he is evaluating the significant dimensions of a wine—for example, appearance, aroma, flavor, finish, overall impression—seems almost self-evident, even though we typically see a single numeric score and we learn nothing of either the dimensions measured, the scores assigned to each, or the weights assumed.

The wide array of evaluation forms used to score wines at wine tastings provides evidence that this is at least the implied model (<http://www.google.com/search?q=wine+scoring+sheet&tbm=isch&tbo=u&source=univ&sa=X&ei=RymxUYPfOeTh4AOytIHwBw&sqi=2&ved=0CCoQsAQ&biw=1173&bih=606>). One of the simplest examples of this approach is the rating (“tasting”) sheet used by the Oxford University Wine Society (“Bacchus”) (http://users.ox.ac.uk/~bacchus/docs/tasting_sheet.pdf) which provides space for a wine description (facts about the wine); notes on appearance, nose, and palate; and “conclusions”. It discriminates among three most general sensory characteristics

of the wine itself and says nothing about scoring. On the other hand, the UC-Davis Wine Evaluation Chart, also used by the American Wine Society (AWS), (<http://www.americanwinesociety.org/associations/10474/files/Wine%20Evaluation%20chart%202010.pdf>) includes a detailed “Aroma Wheel” with 12 categories of aroma, most with sub-categories and specific aromas with each sub-category; and 5 rating attributes, each with its own allowable points with detailed description of each point value (Appearance (4), Aroma and Bouquet (7), Taste and Texture (7), Aftertaste (4), and Overall Impression (3)). Since each attribute can be scored 0, the maximum possible score is 20.

Of course, such a score represents a form of WAS with implied weights and different degrees of differentiation of the attributes it recognizes: think of the possible points as weights and the impression from that attribute as falling somewhere between 0 and 1—from worst to best. According to the model of wine quality implied by the Davis/AWS chart, appearance and aftertaste are equally important; and bouquet and taste are equally important and 75 percent more important than appearance and aftertaste. One’s overall impression can add only as much as 15 percent more to one’s rating.

The relevance of a WAS model is highlighted by its use without acknowledgement by one of the foremost wine critics, Robert Parker. His model is illuminating. In his presentation of the Wine Advocate Rating System (2013), he provides the weights for his rating index:

“...my scoring system gives every wine a base of 50 points. The wine's general color and appearance merit up to 5 points...The aroma and bouquet merit up to 15 points...The flavor and finish merit up to 20 points...Finally, the overall quality level or potential for further evolution and improvement—aging—merits up to 10 points.”

That is, bouquet is three times as important as appearance and three-fourths of the importance of flavor and finish. Parker allows 40 percent of his points to go to everything after the bouquet and 20 percent to go to overall impression; while AWS allows 45 percent for everything after bouquet but only 10 percent to overall impression. Table 2 below summarizes the different WAS models from these two examples:

Table 2

A Comparison of Two Prominent Weighted Average Scoring (WAS) Systems

Attribute	Parker (% of total)	UC-Davis/AWS (% of total)
Appearance	5 (10%)	3 (15%)
Aroma and Bouquet	15 (30%)	6 (30%)
Taste and Texture	20 (40%) with finish	6 (30%)
Aftertaste		3 (15%)
Overall Impression	10 (20%)	2 (10%)
Total	50 (100%)	20 (100%)

A strikingly different rating system is Chebnikowski’s “Winespider” (CW) which identifies 16 attributes, each of which can earn a score from 0 to 10 (Cicchetti and Cicchetti 2009). The “spider” is the visual presentation of a wine’s ratings as a 16-spoke wheel (so 15 equal sides at its perimeter) with the score of each dimension indicated by a point and the points connected by lines, giving the impression of a spider web (all 0s appears as a point at the center of the wheel, all 10s appears as a pentadecagon, and all ratings in between appear as a “thread” weaving its

way around the 16 dimensions). The visual presentation facilitates comparisons among wines since one can see the relative strengths and weaknesses of the wines by seeing where each is inside or outside another along any given dimension.

Comparing a CW rating to either a Parker or a Davis/AWS rating highlights the differences among different ratings. CW uses considerably more disaggregated dimensions, but each has equal weight, and it is not apparent how one would aggregate the 16 CW attributes into the 4 or 5 from Parker and Davis/AWS. Cicchetti and Cicchetti explain how one can collapse a CW score into a 100-point scale (p. 76), but the comparability between a score of 86 between, say, Parker and CW is unknown: they could mean very different evaluations of the wine.

If a consumer does not agree with his priorities, then Parker's ratings will be misleading. Considering only the differences between the AWS weights and the Parker weights given in the table above, one can see how the same wine may yield different scores if for no other reason than the different weights. To take an extreme example, if a wine is all color and nose (1,1,0,0,0), Parker gives 40 percent of a perfect score. AWS gives 45 percent. If it is all nose and finish (0,1,0,0,1), Parker awards 50 percent of perfect while AWS awards only 40 percent. These differences in scores are enough to give an impression of a risky wine if one looks for "consistent" ratings before settling upon a purchase.

Thinking of ratings as a WAS, it is perhaps more unsettling that wines with the same scores may mean very different impressions to the different experts. A score of 75 percent of possible points could mean excellent color and oral experience to one and great aroma, color, and potential to the other. On the assumption that experts rate wines independently of each other—perhaps a strong assumption since it is difficult to validate—consumers who are skeptical of ratings but are unfamiliar with a wine may favor wines that have two or more favorable ratings from prominent experts, thinking that they know "enough" about a wine that receives similar ratings from multiple experts (where a greater number of similar ratings is taken to mean more reliable knowledge). Wine advertising regularly responds to this instinct by noting that a wine is a "double 90-point" wine or a "triple-90s" wine. In the same vein, auction catalogues regularly provide a rating and tasting note if it is complimentary and from a prominent expert; subject to space limitations, they add additional ratings as long as they reinforce the positive image.

Rarely does a vendor attempt to provide a comprehensive list of ratings, usually opting for the most favorable ones available from popular experts. One vendor that seems to provide relatively full disclosure is the flash sale site "Cinderella Wine" (<http://cinderellawine.com/>), sponsored by the Wine Library (Springfield NJ USA). It is unusually thorough in providing a link to consumer comments and ratings on "Cellar Tracker" (<http://www.cellartracker.com/default.asp>) as well as numerous ratings of wines offered, although lower scores, if any, appear at the end of the advertisement and without the accompanying TNs. It also provides a complete list of past offers (beginning October 2009). Among major online retailers, this would seem to be one whose marketing is relatively service dominant.

The fundamental difficulty, however, is that comparing ratings among experts who use different scales is not straightforward. How to compare a two-star rating (out of three possible) from Guide Hachette with a Parker score of 88 points is not clear. More subtle is the likely inconsistency of comparing a Parker 88 with a Stephen Tanzer 88 when, relative to Parker, we know very little about Tanzer's underlying model of rating—or, as noted above, a CW 88 where the rating system, while stated explicitly, is so different.

We must bear in mind that most experts do not disclose such details—either the attributes in their weighting scheme, the weights assigned to each, or the quality level assigned to each attribute to arrive at the single rating. Perhaps one could extract an implied model by analysis of an expert’s ratings; but that would require identifying the attributes considered significant by the expert (perhaps by an analysis of accompanying TNs if available) as well as the relative importance of each (implied weights) and the scores assigned to each attribute. This would likely require considerable modeling.

Thinking of a wine rating as a WAS suggests a number of concerns. We shall note at the outset two assumptions. First, one’s willingness to assign a numeric rating to a wine suggests that one would also approve of assigning a numeric rating to any sensory component of a wine if one could agree that a given dimension is legitimate (e.g., bouquet). Second, a wine rating is intended as a sensory evaluation of the wine. Its other characteristics such as grape content, alcohol level, age, producer, and packaging format are objectively observable, at least potentially.

If a rating is a WAS across a number of attributes, how do we know the sensory attributes included in the rating and, more fundamentally, the extent of disaggregation of sensory attributes? Do we all know what bouquet means? Does bouquet have an initial impression? A length? A finish (like taste)? Can one distinguish as many degrees of finish as one can distinguish flavor? Is one a 3-point scale and the other a 10-point scale?

Among those who reveal something of their model of tasting, some provide more details than others. Parker identifies the attributes he judges and the points allocated to each. AWS indicates not only the attributes but also the number of points allocated to each and the meaning of each point.

Do the weights and the attributes differ by wine or “peer group” since some are known to be more aromatic than others or have better “prospects” (more ageworthy) than others? Does a Beaujolais Nouveau deserve a less-than-perfect score from Parker on “potential” because it is unlikely to improve? What is the “perfect” color of a red Burgundy? If one observes the varieties of behavior among wine consumers, it seems clear that we care about different dimensions—some look for a long time, some smell for a long time, some savor for a long time, and so forth. How does a rating tell a consumer what s/he wants to know?

IS “VALUE” AN ATTRIBUTE?

A particular concern is the relevance of price to ratings. If one is “grading” wines, then it seems reasonable to include “value” as one of its attributes: give a higher rating to wines that are better values in the eyes of the expert. In the context of experience goods, it might seem sensible to allow for the idea that the consumer also knows that a wine is a good value.

None of the experts listed in Table 1 state explicitly that they consider price in determining ratings, and some claim that they do not (e.g., Parker, Wine Spectator). It seems likely, however, that some do. For example, aside from the default category of wines not listed, the two largely country-specific buying guides Guide Hachette (GH) for France and Gambero Rosso (GR) for Italy have essentially four or three categories of quality respectively, and they assign each wine to one of a few price categories (e.g., in its 2014 edition, GH has, in euros, <5, 5-8, 8-11, 11-15, 15-20, 20-30, 30-50, 50-75, 75-100, + de 100 (Rosa 2013: 8); GR uses similar categories). It seems unlikely that, among red Bordeaux with a GH review, three-star wines are interchangeable whether they are in the “<5 euro” category or the “+ de 100 euro” category.

However, GR clouds the issue by highlighting in red the price category of a wine that is a particularly good value.

But why does attention to value raise a concern? Consistent with the economic concept of maximizing benefit and, for every transaction, maximizing benefit per dollar spent, the idea of ratings—notwithstanding the problems of interpretation discussed earlier—is that they should vary directly with benefit (at least the benefit to the rater) and, by extension, one therefore should maximize “points per dollar” with every wine purchase. Indeed, more than most, many wine consumers seem to have taken the benefit-per-dollar concept seriously by focusing upon the idea of a “quality-to-price ratio”, or QPR, which apparently is a widely followed measure of value followed by wine consumers relative to all others because of the widespread availability of wine ratings and prices (http://en.wikipedia.org/wiki/Glossary_of_wine_terms). The value of the wine is, in effect, points per dollar.

It is also relevant that wine ratings are most meaningful relative to other wines that consumers would consider close substitutes: they are shopping for a type of wine, and one potential benefit of ratings is to help the consumer know relative quality among the competing wines. For example, one is unlikely to treat Champagne and a fine Australian Shiraz interchangeably, and one would expect to find differences in the list of attributes judged for each (e.g., the quality of effervescence, depth of color). In this sense, if the consumer is considering ratings, then Champagne scores will be largely irrelevant to the consumer’s consideration of the Shiraz scores she finds: again, what matters are the scores of the consumer’s perceived close substitutes.

With this said, and assuming that ratings are true and comparable indicators of relative quality among close substitutes—a strong assumption, we know by now—the consumer’s strategy seems straightforward: among the close substitutes (call them “peers”), choose the wine with the highest QPR, or points per dollar.

But what if value is already considered as an attribute in the rating—if the rater has somehow allowed for something directly related to her judgment of QPR in assigning the rating? We cannot know how one might allow for price—those who seem to consider it (e.g., GH, GR) do not explain how—but a simple, and oversimplified, assumption illustrates the problem. If the score is an estimate of QPR—pure quality rating (q) divided by estimated price (p) (so q/p)—but that is not known by the consumer, then the consumer’s own naïve calculation of quality divided by price ($(q/p)/p$) yields, in effect, quality divided by price squared (q/p^2), and the consumer has a deflated estimate of the wine’s true QPR. Moreover, the distortion grows exponentially with price. The distortion for a \$10 wine is that the QPR is 0.1 of its true value (in our simple example), but it is 0.01 its true value for a \$100 wine. Thus, the distortion is relatively greater for the more expensive wine, and the less expensive wine appears to be a relative bargain.

Many who have bought relatively inexpensive wines that seemed comparably rated to more expensive wines have been disappointed (e.g., the example described above of the GH 3-star rating in two extreme price categories), probably because they do not know whether and how price has been considered in the rating and they do not know the peer group.

Consider the following example. Without knowing the meaning of peer group and assuming that price is not one of its determinants, one finds from Daniel Bolomey’s useful website “BordOverview” that Parker rated both the ’08 Ch. Duhart-Milon-Rothschild and the ’08 Ch. Margaux at 94 points—two wines that one could infer come from the peer group “’08 red Bordeaux”. The futures price of the Duhart was 31 euros while the price for the Margaux was 175 euros (<http://www.bordoverview.com/?q=Robert-Parker>). Why would anyone pay almost

six times as much for a wine that s/he can “know” is the same quality? Yet many choose Margaux over Duhart. Are they crazy?

A first alternative is that they are or, more likely, that they feel that the ratings miss a considerable amount of the quality differential between the two wines. Two additional alternative explanations are, first, that price has been considered in the rating (Parker’s stated policy notwithstanding) so that—again, oversimplified—the two wines have perhaps comparable QPRs (strictly speaking, the Margaux is almost six times as good as the Duhart but it is also almost six times as expensive), and the consumer should not make some further adjustment for price. A second alternative is that we have misstated the peer group, and, in particular, peer group definition and average price may not be independent.

Many sources of ratings say something about the role of peer groups:

- Parker: “Scores are important for the reader to gauge a professional critic’s overall qualitative placement of a wine vis-à-vis its peer group” (<https://www.erobertparker.com/info/legend.asp>).
- Tanzer (IWC): “Wines are scored relative to their peer group based on their expected quality during their period of peak drinkability” (<http://www.wineaccess.com/expert/tanzer/ratingscale.html>).
- Wine Spectator: “Our tasting coordinators organize the wines into flights by varietal, appellation or region....The tasters are told only the general type of wine (varietal and/or region) and the vintage. No information about the winery or the price of the wine is available to the tasters while they are tasting.” (<http://www.winespectator.com/display/show/id/tasting-format>)

Of these three rating sources, only Tanzer omits commenting upon the role of price in setting his ratings so it is likely that experts understand the sensitivity of confounding ratings with price. The other two say that price is not considered. However, they are vague about the meaning of “peer group”: if their identification of peers is straightforward, then they should be willing to identify them, but they do not.

The idea of providing ratings relative to a peer group seems reasonable and appealing and convenient—like attempting to capture the relative quality of some modal group of close substitutes among which the consumer may want to choose—but the difficulties arise in the implementation. Indeed, a goal-oriented interpretation of peers, or close substitutes, which allows implicitly for price could boost sales of one or a group of wines considerably.

One can imagine defining peer group so as to distort the apparent quality of lower priced wines. For example, if the peer group is ‘02 Champagne Brut Rose’, then all of the peers in that group are expensive, ranging in price per bottle at the time of this writing from \$73 to hundreds of dollars using data from the Professional version of www.wine-searcher.com. Thus, if one of these has a 91 rating for \$73, then it doubtful that one can say a 91-point NV Champagne Brut Rose’ –from the peer group NV Champagne Brut Rose’—priced at \$12, the bottom of that group’s range, is about the same quality. However, if one defines the peer group as “Champagne Brut Rose’”, then the NV bottle looks like a considerably better value, even though it could be clearly lower quality than the vintage Champagne.

In this example, one might object that wines from these two groups are unlikely to have comparable quality. However, if the rating allows for value implicitly, then such a comparison would not be unusual (cf. the red Bordeaux example above). One objects because the peer group has been specified, and the distortion is clear: that is rarely the case with the experts.

OTHER ISSUES COMPLICATING THE USE AND INTERPRETATION OF RATINGS

Aside from the questionable value of TNs and the difficulty of interpreting ratings, a third set of concerns about capturing the consumer's experience with ratings is the share of the content of the expert's tasting experience that can be transferred to the consumer's experience. Think of all the advertised circumstances of the expert tasting and the circumstances of one's actual consumption of a wine—starting with the differences in nose and tongue. Aside from the persistent risk of bottle variation, wine rating emerges from an experience influenced by a dizzying number of factors ranging from observable and measurable differences like ambient temperature, wine temperature, time of day, and glassware to presence of others, mood, and presence of other consumables. Judging that a wine is 92 percent of perfection under one set of circumstances may provide only the most general indication of its relative appeal under different circumstances, especially to a different person.

Fourth, a finding of a positive impact of ratings on price does not tell us that consumers are willing to pay more for wines that they know are better. A significant direct correlation between WTP and ratings could mean that 10 percent of purchasers are buying for investment purposes and assuming that higher ratings yield higher WTP from subsequent buyers; and the other 90 percent are buying for own consumption and essentially disregarding the ratings since they find them worthless in evaluating how much they will enjoy the wine in their circumstances. In order to disentangle the impact of ratings, we would need to know more about motives for purchase and allow for a change of purpose over the life of ownership: for example, some may buy wine for investment and then change to own consumption and vice versa.

The evidence also does not indicate sustained returns over time. Greater WTP at the time of release says nothing about the ultimate return to the rating in subsequent sales. If a rating actually captures the quality of the wine, then the return would accrue only to the initial buyer with all subsequent buyers getting only normal returns—but then again, we do not know the motives of subsequent buyers.

Complicating this is, again, revision of ratings—probably a reasonable development but another indication of the uncertainty of knowing what is in bottle.

WINE GRADES AND STUDENT GRADES

Many consider one of Parker's more clever innovations in wine evaluation to be the adoption of a grading scheme for wines that resembled the grading schemes that most had encountered as students (McCoy 2005: 63-4, 131-3). He was incisive in realizing that US consumers—especially the relatively educated consumers that were likely to become the core of the US fine wine market—would understand wine “grades” on a 100-point scale.

Perhaps ironically, Parker's step in that direction can be extended to highlight the often unreliable content or perhaps transitory value of wine ratings. A closer look suggests that wine grades suffer from many of the same difficulties presented by school grades—for example, multidimensional performance usually compressed into a single dimension; selection of evaluation criteria, weighting, and methods based upon the evaluator's personal preference rather than some well-established set of standards (criteria, weights, and methods); a limited opportunity for evaluation of performance relative to the lifetime of performance of the subject being evaluated; and influences upon the grade from circumstances at the time.

For credibility, both require objectivity, transparency, and thoroughness; but neither reflects or communicates a true and enduring knowledge of what is graded. Perhaps, as with student grades, one gains a better sense of overall quality by collecting numerous evaluations

from different reliable sources over an extended period (like a Grade Point Average from a university transcript), but this is prohibitively difficult—and one may still be surprised. Moreover, like sorting student quality, it is still likely to yield only a handful of quality categories.

THE PHILOSOPHICAL PROBLEM

Our focus has been the question of designating fine wine as an experience good, arising from efforts to identify the determinants of wine prices and, in particular, our ability to represent what consumers know or could know about a fine wine in forming their willingness to pay for it by using expert ratings. Up to now, most of the focus has been upon a critique of the most popular sources of information about wine quality available to consumers aside from extensive personal tasting experience. Based upon the analysis, the case for expert opinions in their various forms providing a good proxy for a consumer's knowledge of a wine is weak: such information, even if supplemented by personal tasting experience, still leaves most fine wine consumers surprised much of the time.

From a philosophical perspective, skepticism about the consumer's ability to know what she is purchasing is on even firmer footing than the preceding discussion suggests. A recent book (Smith 2007a) collects a number of papers which, according to the editor, represent the first "sustained study of the relationship [between philosophy and wine]." In his Introduction (Smith 2007b), Smith wastes no time in questioning what we can know about a fine wine:

- If much of the pleasure of drinking wine is sharing it with others, how can we actually do that if taste is subjective "as we are always told"? Is sharing during tasting truly a shared experience in the sense of having something significant in common and knowing what each other is tasting?
- When we share and reflect upon a bottle of wine, we think we are reflecting upon the same thing—but what are the properties of this so-called shared experience?
- "How accurate or objective is the language we use for describing [the features, qualities, and character of the wines we talk about]?"
- "How much trust should we place in wine connoisseurs or experts" and are they able to communicate effectively with anyone other than perhaps other experts?
- Knowing a wine requires tasting it for oneself, but does our tasting reveal properties of the wine itself or, instead, our subjective responses to the wine?
- Is judgment about wine neither entirely subjective nor objective but perhaps relative—that is, accurate for "a standard or assessment, or set of preferences," that is not shared among experts? (pp. xii-xvi)

It is not surprising that none of the answers to these questions are either dismissed or answered definitively. The contributors disagree fundamentally about the existence of objective knowledge of a wine beyond its technical characteristics which, while objective, will make different impressions upon different consumers, depending upon influences such as their own physical characteristics (e.g., genetic differences, "supertasters" vs. "medium tasters"), their backgrounds (e.g., amount of "training"), and the circumstances of the tasting (Goode 2007).

As Smith has stated it: "Here we have a key philosophical question: how subjective are tastes and tasting, or to put it in ontological terms: what are we tasting?" (Smith 2007b: xiii)

CONCLUSION

After considering the definition, one must question whether fine wine is an experience good—not that it overstates the complexity of the consumer's problem but that it significantly understates it. For example, Nelson's original examples like home appliances are considerably

easier to know than these wines. If one has no experience with a refrigerator, then one may have a difficult time arriving at a WTP for a given refrigerator. Once one buys a refrigerator, one understands its basic function and most of its competing brands. Very few competing products represent a significant challenge to understanding all refrigerators—and similarly for the kinds of goods Nelson describes. Because of the flood of new consumer technology in recent years, many of us who experienced much of this only as adults can identify with this difficulty: If one has never used a “smart phone”, how does one gauge one’s WTP for it? The idea that one can know a type of wine by buying one of its representatives in the same sense that one can know a type of refrigerator by buying one of its type seems misplaced. At least as important in considering the determination of WTP is the consideration that comprehensive knowledge of substitutes among refrigerators is at least feasible relative to the prospect of gaining comprehensive knowledge of all the choices available as substitutes for a type of wine.

We have considered wine’s status as an experience good primarily through the prospect of the consumer’s vicarious familiarity with a wine through access to others’ experiences as represented by expert ratings and both expert and amateur tasting notes. They may be the best proxy we have for consumer knowledge of a wine; but, as knowledge, they suffer from a variety of flaws. Our review may provide some support for the apparently weak ability of such data to explain wine prices. Philosophy is not always considered a behavioral science, but the questions philosophers raise about our ability to know a wine contribute further to our understanding of the consumer’s challenge in knowing a wine and what it is worth.

The case for fine wine as an experience good is weak. A product that might be a closer match to the good the fine wine consumer purchases is an informed bet on a horse race. By doing one’s research, one can increase one’s likelihood of choosing a winner—or at least a show—but the purchase inevitably includes a large element of chance. It seems unlikely that gamblers and wine aficionados are cut from the same cloth, but they are not unrelated—and those who are sufficiently risk averse tend to avoid purchasing fine wine. We cannot know the extent to which this shrinks the potential market, but we expect that many acknowledged wine buyers are “overwhelmed” and that many more potential buyers usually stay away.

Considering only one’s own consumption, what then is fine wine’s attraction? Part of the appeal is the prospect of winning and the potential returns to careful research. Also important is the sense that, when one finds a “winner”, it is not only a reward for risk taking and an attractive return on investment but also a gift from the winemaker that yields considerable satisfaction.

The philosophical problem presents a challenge to progressing with this. Two promising areas are, first, further exploration of information sources that contribute to the consumer’s ability to recognize a wine. The prospect of learning more, perhaps through neuroscience, about how we register and remember experiences like wine tasting is also attractive.

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Effects of search attributes on price variability: empirical evidence for wines from Puglia region

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Abstract

Purpose: The choice of a bottle of wine is affected by the presence of attributes that are searched by consumers and can be evaluated before the purchase. The aim of the paper is to analyze the effect of some search attributes on wine price variability.

Design/methodology/approach: The Hedonic Price Model has been considered since it allows explaining how the price of wine varies depending on its main quality attributes. The analysis has been based on a sample of wines made in Puglia, Italian region characterized by a tradition in wine production and consumption. Data have been collected from a wine guidebook considering the years 2012 and 2013.

Findings: The study provided a measure of the market value of some search attributes for wines produced in Puglia. Attributes as alcoholic content, age and score given by experts, influence price variability allowing wines to obtain a premium price. The name of the Protected Designation of Origin has less influence on price variability than the Protected Geographical Indication (PGI), whereas the name of the variety seems not to have high influence with the exception of less known and locally grown varieties.

Practical implications: The study's results may be of interest for marketers and policy makers of wine industry. Managerial implications could refer to the importance of differentiation strategies aimed to market segmentation and to the pricing strategy. Policymakers could also find interesting hints about the influence of the different appellations and the importance of minor autochthonous grape varieties that need to be preserved.

Key words: Search attributes, Hedonic model, Puglia, Consumers' choices, Wineries strategies

1 – INTRODUCTION

Wine is a highly differentiated product made from grapes of different varieties grown under various pedoclimatic conditions which change a lot across geographical areas and years. This wide heterogeneity is reflected on the wine price that, such as for other products, is associated with the quality as perceived by consumers. However, in most cases, purchasers compare different bottles of wine with no past consumption experience and so without really knowing the characteristics of the product. Consequently, a relevant role in the choice process is played by attributes whose presence can be verified before the purchase, known as "search attributes", reading the label on the bottle and looking for wine's description and evaluation, referred to a rating system, provided by experts.

The aim of this work is to analyze and quantify the effects that search attributes of wine such as colour, alcoholic content, variety, age, area of production and sensory characteristics, can have on price. For this purpose, a "hedonic price model" has been estimated. This model relates the price of a generic good to its quality attributes. The concept is that any product embodies a bundle of characteristics that define its quality. The price of each attribute is implicit but the sum of implicit prices of all attributes determines the whole price of the product. Statistical analysis helps to measure consumers' evaluations of the different product attributes.

The analysis has been conducted on a sample of wines produced in Puglia, which is the fourth largest wine producing region in Italy, with more than 4.0 million hectolitres in 2012, equal to 10.4% of the national production, from a vineyard surface area of almost 87,000 hectares. Nearly half production (47%) is certified as Protected Geographical Indication (PGI), whereas the incidence of wines with Protected Designation of Origin (PDO) is 21% and the remaining production (32%) is referred to table wine (Istat, 2012). In Puglia, there are 30 wines with PDO certification and 6 wines with PGI certification, among which, in 2011, PGI *Salento* and PGI *Puglia* have been ranked fourth and seventh among Italian PGIs, accounting, respectively, 1.0 million hectolitres and 0.7 million hectolitres (Unicredit Bank Report, 2013).

Wine exports from Puglia have been increasing significantly over the last few years from 78 million Euros in 2009 to 121 million Euros in 2012 (Unicredit Bank Report, 2013). Red wines from autochthonous varieties (*Primitivo*, *Negramaro* and *Nero di Troia*) are the main exported products and the primary export market is Europe (Germany, Austria, the Netherlands and Denmark) but the most profitable market is United States (6-7% of the total export by value from the region). Export share towards Canada and Japan is increasing, whereas Apulian wine is still less known in new consumers countries as Brazil, Russia, India and China.

This study aims to contribute to a better understanding of the influence of search attributes on wine price by using an approach that takes into account both the demand and supply sides. This kind of analysis has important practical implications related to the possibility of quantifying the individual effect of each quality attribute on the overall price of wine. In fact, as Oczkowski (1994) pointed out, if the benefit associated with a particular quality attribute (implicit price) could be compared with the relative costs incurred, producers could make better strategic choices. Thus, the results of this study may be useful in understanding the evolutionary dynamics of Apulian wine market and in addressing marketing strategies as companies face an expanding market that is also characterized by increasing competitive pressure and rapidly changing consumer preferences. Moreover, results could be useful to policymakers for decisions regarding

the effectiveness of appellations as Protected Designation of Origin (PDO) and Protected Geographical Indication (PGI) and the relevance that minor autochthonous grape varieties have in characterizing the identity of a territory.

The remainder of this paper is organized as follows: Section 2 briefly presents an overview of the literature about hedonic price with a focus on wine; section 3 gives a detailed description of the applied methodology; section 4 discusses the results; section 5 summarizes the main findings and highlights some implications.

2 – LITERATURE OVERVIEW

According to Lancaster's theory of demand (1966) the utility that a consumer can derive from a product depends on the characteristics embedded in it and, under the assumption of perfect competition, the theory suggests that consumers' willingness to pay depends on the bundle of several quality attributes that are independently valued by consumers at the time of purchase. So, the observed market price of a product is the sum of implicit prices paid for each quality attribute (Rosen, 1974); implicit prices can be estimated by employing a hedonic price model which is a regression model capable of expressing the observable price of any particular product as a function of its characteristics (directly or indirectly observable). This theoretical model is based on the assumption of a general economic equilibrium in a perfectly competitive market; therefore, consumers maximize utility by choosing available products under budget constraints and firms maximize profits given the available technology and factor prices (Rosen, 1974). As a consequence, being related to both supply and demand conditions, implicit prices cannot be considered merely as indicators of consumer preferences (Oczkowski, 1994; Rosen, 1974; Schamel, 2006). Moreover, in a situation in which there is imperfect competition, implicit prices are also affected by the choices of producers who take into account their own market power, price elasticity of demand for each attribute, and the costs required to incorporate each attribute in the final product (Hassan, and Monier-Dilhan, 2006).

In literature, a large number of studies have adopted this approach for analysis applied to the market of wine because this product is characterized by high degree of differentiation associated with price variability more than other food products (Lecocq e Visser, 2006; Oczkowski, 2001). For estimating implicit prices, many authors have focused on some wine characteristics that consumers evaluate when making a purchasing decision: the importance of the area of production (Schamel and Anderson 2003; Schamel 2006; Panzone and Simoes 2009), the reputation of the winery (Landon and Smith 1998; Ling and Lockshin 2003), grape varieties (Pavese and Zanola, 2008; Schamel and Anderson 2003; Steiner 2004), colour (Schamel, 2000) and sensory quality ratings (Oczkowski 2001; Schamel and Anderson 2003; Costanigro et al. 2007). In addition, this approach has been adopted to assess the influence in pricing structure of product packaging characteristics (Mueller Loose and Szolnoki, 2012), different price segments (Costanigro et al., 2007) and retail formats (Brentari et al., 2011).

The estimation of a hedonic price function deals with some methodological issues. First, a sufficiently large sample size is needed to conduct the estimate and, regarding that, in previous works, wine guidebooks have been used as source of data (Oczkowski, 1994; Coppola et al., 2000; Schamel and Anderson, 2003; Schamel, 2006; Haeger and Storchmann, 2006; Troncoso and Aguirre, 2006; San Martin et al., 2008). Further, a crucial aspect is the choice of wine attributes to include in the function as regressors, which is influenced by both data availability and specific objectives of the

analysis. Generally, attributes directly valued by consumers before purchasing wine are considered the most suitable for this methodology: colour, alcohol content, area of origin (country, region, sub-region), vintage, variety. Many works have considered such attributes which have shown high significance (Oczkowski, 1994; Nerlove, 1995; Combris et al., 1997; Coppola et al., 2000; Schamel and Anderson, 2003; Steiner, 2004; Schamel, 2006; Lecocq and Visser, 2006; Fogarty J. J., 2006; Haeger and Storchmann, 2006; Troncoso and Aguirre, 2006; San Martin et al., 2008; Ashenfelter, 2008). In addition, some authors have proved that, other characteristics being equal, brand and certification of origin play a significant role on the price variability (Coppola et al., 2000; Schamel and Anderson, 2003; Schamel, 2006; Haeger and Storchmann, 2006; San Martin et al., 2008). Finally, a hedonic price function should include a variable referred to the sensory characteristics of wine. In fact, a positive judgement by consumers on a wine quality will probably lead to repeat purchases and to attract new customers with the result of a price increase. However, it is not easy to find one or more variables that objectively measure the organoleptic quality of a wine. Such issue has been taken into account considering a scoring system for the evaluation of wines by a panel of experts. Some authors have found out that scores reported in wine guides do have a significant impact on prices, stating that wine experts judges, playing a role as opinion leaders, do have a heavy influence on consumers, mainly when choosing premium wines (Oczkowski, 1994; Coppola et al., 2000; Schamel and Anderson, 2003; Schamel, 2006). On the other hand, other authors have observed a low significance of experts' scores and tried to explain such result with the high degree of subjectivity in wine sensory evaluation that could not reflect preferences of consumers (Troncoso and Aguirre, 2006; Lecocq and Visser, 2006; Haeger and Storchmann, 2006; San Martin et al., 2008).

The present paper contributes to the existing literature focusing on wines produced in a specific region, the fourth for production in Italy, and using an approach that considers prices suggested by wineries, as dependent variable, and information readable on the label, as independent variables, so taking into account both the demand and supply sides.

3 – METHODOLOGY

3.1 Hedonic Price Model

In this study a hedonic price equation has been estimated with the aim of analyzing the relationship between the price and the main search attributes of wine.

Almost every considered attribute can be easily recognized by consumers at the time of purchase by reading label information, particularly, alcoholic content, vintage, colour, area of production (as designation of origin and geographical indication) and variety. Since the price of a wine also largely depends on its organoleptic characteristics, as shown in previous researches (Oczkowski, 1994; Coppola et al., 2000; Schamel and Anderson, 2003; Schamel, 2006), it has been considered appropriate to include, as an attribute, the evaluation of the sensory characteristics of the wine made by a panel of experts.

3.2 - Data Collection and Data-Set

Data were collected from the annual wine guidebook “Guida dei Vini di Puglia” published by the newspaper “La Gazzetta del Mezzogiorno” considering the editions of

the years 2012 and 2013. This guide includes almost 150 wineries located in Puglia region, reporting, for each of them, a description of three wines: the most expensive, the winemaker choice and a new product. The description provides information readable on the label as well as the suggested retail price (Euro/bottle 0.75 liter) and a rating (ranging from 1 to 4 stars) based on the organoleptic evaluation provided by a team of experts from the Italian Sommelier Association (AIS), the Italian Association of Oenologists and the National Wine Tester Organization (ONAV).

The number of only three wines for each winery could represent a limit for the sample but the considered guidebook is the most comprehensive for the Apulian wineries. The collected data-set contains 589 observations coming from both editions 2012 and 2013 of the guidebook. The data-set has been considered as cross-section under the hypothesis that prices are not affected by inflation.

A preliminary analysis of the data-set has been carried out by calculating descriptive statistics - such as the number of cases, minimum, maximum, average and standard deviation of price - regarding both the total sample and specific sub-samples distinguished according to a particular quality attribute (Table 1).

In the sample, wines' great price variability is noteworthy, ranging from a minimum of 3.0 Euro/bottle to a maximum of 80.0 Euro/bottle with an average of 11.8 Euro/bottle.

According to the alcohol content (%V/V), 6 subsamples have been derived (less than 12°; 12°-12.9°; 13°-13.9°; 14°-14.9°; 15-15.9°; 16° or more). It is interesting to note that the average price of the wines included in each subsample regularly increases as the alcohol content increases. In fact, it is 6.2 Euro/bottle for wines with alcohol content of less than 12° while it is 18.4 Euro/bottle for wines with alcohol content higher than 16°.

TABLE. 1 – *Characteristics of the Sample (Price in Euro/bottle 0.75lt)*

TOTAL SAMPLE					
	No.	Minimum Price	Maximum Price	Average Price	S D
	589	3.0	80.0	11.79	8.25
ALCOHOL CONTENT					
	No.	Minimum Price	Maximum Price	Average Price	S D.
< 12	11	3	10	6.23	2.26
12-12.9°	133	3	15	7.73	2.33
13-13.9°	252	3	35	10.38	5.04
14-14.9°	139	5	50	14.37	7.97
15-15.9°	35	5	48	18.2	9.01
>16°	19	4.5	80	18.39	21.8
AGE					
Years	No.	Minimum Price	Maximum Price	Average Price	S D
1	275	3	35	8.2	3.28
2	127	3	38	12.18	6.56
3	100	4.5	80	17.16	12.77
4	55	6	28	14.98	6.07
5	17	7.5	43.5	15.52	9.8
6	8	9	50	26.38	14.68
> 6	7	9	50	18.43	14.19
COLOUR					
Colour	No.	Minimum Price	Maximum Price	Average Price	SD.
Red	351	3	80	14.34	9.7
White	123	3	16	8.3	2.57
Rosè	115	3	16	7.77	2.3
SCORE					
Score	No.	Minimum Price	Maximum Price	Average Price	SD.
1 star	87	3	15	7.8	2.28
2 stars	246	3	28	9.77	4.28
3 stars	216	4	80	13.83	9.49
4 stars	40	5	75	21.89	14.56
APPELLATION OF ORIGIN					
PDO/PGI	No.	Minimum Price	Maximum Price	Average Price	SD.
PDO	179	3	80	13.55	11.1
PGI	410	3	48	11.03	6.5
PROTECTED GEOGRAPHICAL INDICATION					

<i>PGI Name</i>	<i>No.</i>	<i>Minimum Price</i>	<i>Maximum Price</i>	<i>Average Price</i>	<i>SD.</i>
Salento	212	3	48	11.68	7.63
Puglia	169	3	30	10.32	4.7
Daunia	13	3.6	18	9.42	4.71
Murgia	7	5	18	9.36	4.98
Valle d'Itria	5	7	35	14.6	11.67
Tarantino	4	5.5	14.5	10	3.67
PROTECTED DESIGNATION OF ORIGIN					
<i>PDO Name</i>	<i>No.</i>	<i>Minimum Price</i>	<i>Maximum Price</i>	<i>Average Price</i>	<i>SD.</i>
Castel Del Monte	40	3	50	12.46	10.03
Primitivo di Manduria	33	4.5	48	15.52	9.67
Gioia del Colle	25	5	80	21.68	19.63
Salice Salentino	25	6	34	12.16	7.55
Brindisi	9	5	16	9.28	3.52
Copertino	7	6.5	12	8.43	1.83
Locorotondo	7	4.7	10	6.96	1.59
Colline Joniche tarantine	6	6	35	19.83	11.08
Moscato di Trani	6	5	16	12.33	3.94
Other PDOs	21	3	16	8.76	3.96
VARIETY					
<i>Variety</i>	<i>No.</i>	<i>Minimum Price</i>	<i>Maximum Price</i>	<i>Average Price</i>	<i>SD.</i>
Blend of varieties	163	3	34	11.16	5.66
Single varietal	426	3	80	12.03	9.02
Aglianico	5	5	22	13.8	7.19
Bombino B.	11	3.9	10	6.79	1.73
Bombino N.	8	3	15	7	3.66
Greco	5	5	12	7.6	3.2
Chardonnay	12	3	13	8.17	3.01
Fiano M.	26	5	14	8.95	2.15
Malvasia B.	9	4	10	7.56	2.51
Malvasia N.	6	4.9	14	9.15	3.02
Montepulciano	9	3	14	8.56	3.33
Moscato	11	5	16	10.93	3.74
Negroamaro	116	3.5	48	10.33	7.05
Nero di Troia	67	3.6	50	12.96	8.59
Primitivo	109	3	80	16.67	12.79
Primitivo di Gioia	9	8	25	14.11	5.62
Verdeca	6	6	12	7.5	2.25
Other International	6	4.5	22.5	11.63	6.84
Other National	11	4	35	11.37	8.93

The influence of age on the price of wine is showed considering the increasing trend of the average price in the 7 subsamples distinguished by the age of wine; it ranges from 8.2 Euro/bottle for the first group to 26.4 Euro/bottle for the group of wines of 6 years. Considering the colour, the average price of red wines is higher than white and rosé (14.3 Euro/bottle compared respectively to 8.3 and 7.8 Euro/bottle); however standard deviation of red wines is much higher showing greater price variability.

The prices of wines also show a fairly clear relationship with the score assigned by experts in accordance with the sensory characteristics. In fact, the average price of wines that have received the minimum score of one star is 7.8 Euro/bottle, rising to 9.8 Euro/bottle for those in the next group, to 13.8 Euro/bottle for those of the three stars group, and, finally, reaching 21.9 Euro/bottle in the top group.

In the sample, there are 179 wines with the appellation of origin PDO (Protected Designation of Origin) and 410 with the appellation of origin PGI (Protected Geographical Indication). The difference between the average prices of the two groups is quite less than expected: in the former group is 13.5 Euro/bottle whereas for the latter is 11.03 Euro/bottle; however, the standard deviation for PDOs reveals higher price variability. With reference to the PGI appellations, 6 subsamples have been derived reflecting the number of PGIs in Puglia which are: *Salento*, *Puglia*, *Daunia*, *Murgia*, *Tarantino* and *Valle d'Itria*. *Salento* and *Puglia* concentrate more than 90% of the PGIs observations, with the former accounting for more than 50%, and showing the highest average prices (11.7 and 10.3 Euro/bottle respectively) not considering *Tarantino* and *Valle d'Itria* which have a few observations.

Wines with PDO appellations have been split up into 10 subsamples considering the frequency of observations in the group: *Castel del Monte*, *Primitivo di Manduria*, *Gioia del Colle*, *Salice Salentino*, *Brindisi*, *Copertino*, *Locorotondo*, *Colline Joniche*, *Moscato di Trani*, *Other PDOs*. *Castel del Monte* has the highest number of observations among PDOs, 40 cases corresponding to 22%, followed by *Primitivo di Manduria*, *Gioia del Colle* and *Salice Salentino*. The average price, not considering the group *other PDOs*, ranges from 8.4 Euro/bottle for *Copertino* to 21.7 Euro/bottle for *Gioia del Colle*, which shows a great price variability.

The sample includes 426 (72%) wines made from single varietal grapes and 163 (28%) from varietal blends (using two or more grape varieties). In the first group, the most observed varieties are *Negroamaro* with 116 cases (27%) and *Primitivo* with 109 cases (26%) which are autochthonous of Puglia and among the 20 most widespread cultivars in Italy. They are followed by wines from other Apulian autochthonous varieties (*Nero di Troia*, *Fiano Minutolo*, *Bombino Bianco*, *Primitivo di Gioia*, *Bombino Nero*, *Verdeca*, *Aglianico*, etc.), from varieties widespread in Italy (*Montepulciano*, *Sangiovese*, *Falanghina*, *Malvasia*, *Moscato*, etc.) and from international varieties (*Chardonnay*, *Merlot*, *Cabernet Sauvignon*, *Sauvignon*, *Sirah*, etc.). Price comparison shows a great difference in the maximum price between blends and varietal wines, the latter group presenting a more than twice value (80 Euro/bottle) than the former. Such high value is mainly due to maximum prices of wines from the leading Apulian local varieties *Primitivo*, *Negroamaro* and *Nero di Troia* which are also characterised by high variability of prices. In the group of varietal wines the minimum price ranges from 3.0 to 5.0 Euro/bottle, with the exception of wines from *Primitivo di Gioia* which have a price of 8.0 Euro/bottle, with the effect of increasing the average price to 14.1 Euro/bottle.

3.3 – Empirical Model

Information included in the above-described data-set has been used for the specification of the following hedonic price equation:

$$(1) \quad \ln Price = \alpha + \beta \text{Alcoholic_content} + \gamma \text{Age} + \delta \text{Score} + \eta_i \text{Colour}_i + \theta_n \text{Variety}_n + \lambda_j \text{Appellation}_j + \varepsilon$$

The variables included in the empirical model are listed and briefly described in Table 2.

The price of the bottle has been used as dependent variable (*Price*) in the empirical hedonic price equation, and it is a continuous variable ranging from the lowest value 3.0 Euro/bottle to the maximum 80.0 Euro/bottle.

Three explanatory variables, alcoholic content (*Alcoholic_content*), age (*Age*) and score (*Score*) are continuous variables as well, while the other explanatory variables, being categorical, have been entered as dummy variables.

Alcoholic content (*Alcoholic_content*) ranges from the minimum of 10.5° to the maximum of 19.0° with an average of 13.4°; age (*Age*) ranges from 1 year to 11 years with a medium age of 2; score (*Score*) is referred to the evaluation of experts who have ranked wines using a scale from 1 to 4 stars.

The remaining explicative variables, being categorical, have been transformed into groups of dichotomous variables or dummies. The colour (*Colour*) has been coded as 3 dummy variables: red, white and rosé; the last has been considered as the baseline

variable. The appellation of origin (*Appellation*) has coded as 11 dummy variables: 4 for each Apulian PGI, 4 for each of the most common Apulian PDOs and 1 for the remaining PDOs; in this case PGIs *Murgia* and *Tarantino* have been considered together as baseline dummy variable. Finally, 6 dummy variables have been considered for *Variety*: the first and second are referred to wines produced from the main Apulian varieties, *Negramaro* and *Primitivo*; the third to wines made from other autochthonous grapes (*Nero di Troia*, *Sussumaniello*, *Ottavianello*, *Verdeca*, *Bombino Nero*, *Aleatico*, *Bianco di Alessano*, *Fiano*, *Greco*, etc.); the fourth to wines from national varieties (*Montepulciano*, *Malvasia Bianca*, *Moscato*, ecc.); the fifth to wines from international varieties (*Chardonnay*, *Merlot*, *Cabernet Sauvignon*, *Sauvignon*, *Sirah*, *Pinot Noir*); the sixth to wines obtained by blended varieties; the baseline variable is the variety *Negramaro*.

TABLE 2 – Variables of the Empirical Model

VARIABLES	TIPOLOGY	DESCRIPTION
DEPENDENT VARIABLE		
<i>Price</i>	Continuous variable	Price of wine expressed in Euro/bottle 0.75 lt
REGRESSORS		
<i>Alcohol_content</i>	Continuous variable	Alcohol content expressed in % Vol
<i>Age</i>	Continuous variable	Age of wine expressed in years
<i>Score</i>	Continuous variable	Score expressed in number of stars
<i>Colour</i>	Categorical variable Dummy Dummy Dummy	Rosé = 1; otherwise = 0 (baseline) Red = 1; otherwise = 0 White = 1; otherwise = 0
<i>Appellation</i>	Categorical variable Dummy Dummy Dummy Dummy Dummy Dummy Dummy Dummy Dummy Dummy	Murgia + Tarantino = 1; otherwise = 0 (baseline) Salento = 1; otherwise = 0 Puglia = 1; otherwise = 0 Daunia = 1; otherwise = 0 Valle d'Itria = 1; otherwise = 0 Castel del Monte = 1; otherwise = 0 Gioia del Colle = 1; otherwise = 0 Primitivo di Manduria = 1; otherwise = 0 Salice Salentino = 1; otherwise = 0 Other PDO = 1; otherwise = 0
<i>Variety</i>	Categorical variable Dummy Dummy Dummy Dummy Dummy Dummy	Negramaro = 1; otherwise = 0 (baseline) Primitivo = 1; otherwise = 0 Minor Autochthonous = 1; otherwise = 0 Other National = 1; otherwise = 0 International = 1; otherwise = 0 Blend = 1; otherwise = 0

The justification to create three distinct groups for varietal wines from, respectively, minor autochthonous varieties, other national varieties and international varieties, each of them as categorical variable, lies in the fact that the number of observations for each single variety in the sample is too small to provide a sufficiently robust estimation.

Finally, regarding the functional form of the equation, the literature does not clearly suggest among linear, semi-logarithmic and logarithmic forms. Nevertheless, for this work a semi-logarithmic functional form has been chosen, taking into account the easy interpretation of its coefficients and its flexibility.

4 – RESULTS

Estimation results of the hedonic price Equation using the method of Ordinary Least Square (OLS) are summarized in Table 3, which also includes the most important performance indicators of the empirical model. In particular, it is relevant to highlight a good overall significance (F-statistic equal to 23.87 with a P-value lower than 0.01) and a good capability to explain the variability of the data-set (adjusted R-squared equal to 0.49).

TABLE. 3 – Estimation Results

Variable	Coefficient	StandardError	TStatistic	PValue	Significance
Costant	-1.77906	0,34568	-5.1465	<0.00001	***
Alcoholic_Content	0.225831	0.0269798	8.3704	<0.00001	***
Colour					
Red	0.00921386	0.0518982	0.1775	0.85915	
White	0.00901317	0.0495832	0.1818	0.85582	
Score	0.145939	0.0207024	7.0494	<0.00001	***
Age	0.0849413	0.0148597	5.7162	<0.00001	***
Variety					
Blend	0.0819677	0.0462767	1.7713	0.07705	*
Minor Autochtonous	0.102489	0.060726	1.6877	0.09201	*
International	-0.000118047	0.100578	-0.0012	0.99906	
Other National	-0.0925567	0.0614538	-1.5061	0.13259	
Primitivo	0.0120036	0.0688061	0.1745	0.86157	
Appellation					
Daunia	0.205339	0.170547	1.2040	0.22909	
Puglia	0.278032	0.105999	2.6230	0.00895	***
Salento	0.215514	0.105233	2.0480	0.04102	**
Valle d'Itria	0.539848	0.161681	3.3390	0.00090	***
Castel del Monte	0.273237	0.120813	2.2616	0.02410	**
Gioia del Colle	0.2471	0.13774	1.7940	0.07335	*
Primitivo di Manduria	0.0712755	0.139372	0.5114	0.60927	
Salice Salentino	0.115593	0.13089	0.8831	0.37754	
Others PDO	0.131764	0.112366	1.1726	0.24143	

Dependent Variable = lnPrice

F Statistic F (19, 569) = 23.87 P-value (F) = 2.62 e⁻⁶⁰

R² = 0.49 Adjusted R² = 0.47

Log-likelihood = -245.2625

Significance: *** 1% ; ** 5% ; * 10%

It is possible to observe that the three continuous explicative variables have high statistical significance, even if with different magnitude of coefficients.

The first, *Alcohol_content* has a coefficient equal to 0.22. Taking into account the log-linear regression model, the coefficient of a continuous variable such as alcoholic content, explains the percentage change in price due to a unit variance of the explicative variable, all other characteristics being equal. So, one point increase in alcoholic content of wine is worth about + 22.0 % in its price.

The variable *Score*, referred to the number of stars assigned to wines by experts for the organoleptic characteristics, is significant as well. As a continuous variable, the

regression outcome means that wines earn a 14% premium per unit of score, all other characteristics being equal.

Results show high correlation between price and the third continuous variable, *Age*, whose coefficient is 0.08 explaining that, as expected, wine aging has a positive effect on wine pricing, in this case the increase is 8% per year.

Considering the first of the three categorical variables, *Colour*, it does not affect wine price. In fact, neither of the two dummies incorporated into the model, red and white (rosé is used as baseline), is statistically significant. Since in the adopted model the coefficient of a dichotomous explanatory variable expresses the percentage change in price due to the presence of a given quality attribute (all other characteristics being equal), it follows that neither red nor white wines show substantial differences in prices compared to rosé wines.

Among dummies for the categorical variable *Variety*, only two - Blend and Minor Autochthonous - are statistically significant with positive coefficients (+0.08 and +0.10). Therefore, wine price variability could be only partially related to the different varieties: compared to *Negramaro*, the variety used as the baseline, the influence on price is similar for wines from the second autochthonous widespread variety in Puglia, *Primitivo*, as far as for those from international and from other national varieties; whereas, wines from minor Apulian autochthonous varieties do have a higher value, equal to 10%, and those made from blends of grapes equal to 8%, all other characteristics being equal.

The last categorical variable, *Appellation*, which is referred to the area of production, contributes to explain price variability displaying statistical significance for three PGIs and two PDOs. Surprisingly, neither PDO *Primitivo di Manduria* nor PDO *Salice Salentino*, which are made from the leading Apulian varieties *Primitivo* and *Negroamaro*, are significant. The coefficients of the dummy variables have to be interpreted as price premium compared to the dummies IGP *Murgia* and IGP *Tarantino* which have been considered together as baseline. So, PGI *Valle d'Itria* presents the highest coefficient, meaning that wines with such appellation are 53% more expensive than baseline appellations, followed by PGI *Puglia* (+27%), PDO *Castel del Monte* (+27%), PDO *Gioia del Colle* (24%) and PGI *Salento* (21%).

5 – CONCLUSIONS

Wine is a highly differentiated product and some of the main attributes which affect market competition are defined as search attributes since they can be known prior to purchase. In fact, consumers can easily look for wines that satisfy their own preferences for characteristics as colour, alcohol content, variety, age, area of production and sensory characteristics. The hedonic price model applied to a sample of wines produced in Puglia provided a measure of the market value of these attributes that can be used to investigate some important features of this industry and to provide some insights on the wineries strategies. The study shows that Apulian wines prices evidence a high variability which mainly depends on attributes that can be valued by consumers before the purchase.

A first evidence is the positive influence of alcoholic content on wine price, that has been already found in a study about wines from three Italian regions: Piedmont, Liguria and Valle d'Aosta (Pavese and Zanola, 2008). It can be explained with the traditional pattern of wine consumption in Italy, but particularly in Southern areas, where alcohol content is still considered an important signal of quality. Moreover, it

needs to be outlined that weather conditions of Puglia influence the production of grapes with high sugar content and so high alcoholic strength of wines.

The empirical results about the effect of aging conformed to a priori expectations, as in Costanigro et al. (2007), showing that the age of the wine, similarly to the alcoholic content, is an attribute that heavily affects consumers perception of wine quality. However, wine ageing implies higher costs for wineries related to storage and to the delay in selling.

Organoleptic quality can be known by consumers with reference to the evaluation provided by experts through a scoring system easily readable on guidebooks, magazines, web sites and other media. It has a clear correlation with wine prices since purchasers evidence a willingness to pay more for wines with sensory characteristics objectively judged superior. Findings are consistent with previous researches and suggest that consumers value such information (Combris et al. 1997; Di Vittorio and Ginsburgh, 1995; Haeger and Storchmann 2006; Lima, 2006; Lecocq and Visser, 2006; Nerlove, 1995; Pavese e Zanola, 2008; Schamel 2000, 2004 and 2006; Schamel and Anderson 2003; Troncoso, 2006).

The role played by the Geographical Indications and the Designations of Origin gives interesting results. There is evidence that PDO certification, that is at the top of the Italian pyramid of quality, has less influence on price than PGI, characterized by looser roots in the area of origin. It can be argued that for well known PDOs, as *Primitivo di Manduria* and *Salice Salentino*, their reputation is strong if linked to the name of the winery and to the name of the wine on the label. Moreover, this kind of certification is characterized by more stringent rules about both grapes production and winemaking process and needs proper coordination mechanisms for the collective governing body (the Consortium) jointed to adequate management. On the other hand, the production of PGI wines takes advantage of more flexibility in all production stages, allowing the blending of more varieties and making possible to better react to changes in market trends. For this reason many Apulian producers prefer to use the certification PGI for their top quality production in order to compete in national and international markets. The influence of the region of origin on price has been showed by Schamel (2000, 2004), Schamel and Anderson (2003) and Troncoso (2006) and, particularly, some studies showed a strong relationship between Denomination of Origin certification and price (Benfratello *et al.*, 2009; Chambolle and Giraud-Héraud, 2005; Troncoso and M. Aguirre, 2006; Veale and Quester, 2008). On the other hand, Nerlove (1995) found that the origin of wine has low significant influence on price and Steiner (2004) found a low valuation of French wines with geographical appellation in United Kingdom.

The study of the influence of the grape variety on the purchase price does not always lead to similar results according to the literature. Some authors found a sensitivity of the price to varieties, positive or negative depending on variety (San Martin et al., 2008) or just positive (Troncoso, 2006), while other studies proved a weak correlation (Steiner, 2004). In the present study the estimation model has highlighted the influence of the Apulian minor autochthonous varieties on price variability and, even if to a less extent, of the wines made from blends; these, in the examined sample, are often obtained using, in different proportions, one or more minor autochthonous varieties. The influence of blends on price is also highlighted by San Martin et al. (2008) who, however, refer to blends including Malbec and Cabernet Sauvignon, which are not minor varieties. In our case, the price premium associated with wines from minor

autochthonous varieties can be related to the feature of such wines to convey a strong identity, both sensory and emotional, clearly opposed to the so-called international style. So, probably, these wines better satisfy the requests from consumers characterized by curiosity, with a medium-high and high level of wine knowledge and oriented to new taste experiences. However, an Italian study about wines from the Italian regions Piedmont, Liguria and Valle d'Aosta evidences different results showing negative coefficients for wines from autochthonous varieties (Pavese and Zanola, 2008). It is important to take into account that the production of varietal wines from autochthonous grapes requires great investments aimed to varietal conversion and to solve some important technical problems. In fact, they are characterized by low productivity, strongly linked to microclimatic and pedological conditions, and by some critical aspects in oenological process.

Finally, although some limitations in the sample of data provided by the considered guidebook, as the number of only three wines per winery, the results of this study may contribute to understand the Apulian wine market. Further research could be carried out considering a greater number of wines and comparing the benefit associated with a quality attribute (implicit price) with the relative costs incurred.

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Regulating Alcohol Marketing practices in France and UK

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Abstract

The aim of our research is to compare different regulating Alcohol Marketing practices in the UK and France. Those countries have well-established yet contrasting regulatory frameworks. This paper provides an analysis of the French (Loi Evin) & UK codes of alcohol marketing control. We evaluate the differences in the regulatory processes of each country in specific relation to alcohol marketing. The findings will have important policy and practical implications for the industry's stakeholders such as marketers, regulators, health organizations and consumers.

Keywords: Loi Evin, Portman Group, ASA/CAP, alcohol marketing control, France, UK, regulations

Introduction

This research explores the concept of self-regulation in relation to the advertising of alcohol beverages in a comparative context. It will explore the elements of different codes and regulation in the United Kingdom and France and issues of best practice. In the research, a marketing communications perspective is adopted recognizing that advertising is only a part of the modern marketers' toolkit. The alcohol marketing maybe strongly observed through the angle of communication (visible variable) but prices (at least for the bottom-of-the range) are influenced (especially in the UK) by the duties and those duties are also to the product, which ranked by alcohol content. In the UK, in terms of promotion, it should not be neglected that advertising (and sales promotion) is representing per year 200 million £ and sponsoring in sport (Carlsberg, Stella Artois, Johnnie Walker, Guinness, John Smith, Magners, Carling) was 608 million £ in 2007.

1. History

Governments and the WHO are increasingly concerned about the exposure of children to the harmful effects of alcohol marketing. Regulations have been devised to define what alcohol advertisers are allowed to say and where they can say it. The current UK regulation and codes are however at times criticized for being ineffective in curbing the culture of binge drinking. Most legislation is based on the legal drinking age and in the UK, it defines rules on the promotion of alcohol in the media. The restriction vary, thus for print at least 90% of readers must be adults; for radio post 9 pm and for films with an 18 certification; there are also rules regarding point of sale in licensed premises and at traditional producer events. The advertising codes require alcohol advertisers to make factual and verifiable statements about their products, the alcoholic strength, composition or place of origin. Every advert must also carry a responsible drinking or health message. In recent years the rise of new digital and social media has seen a call for tightened regulation in regards to media designed specifically to appeal to young people films, viral phone marketing and "advergames". In other areas such as sports sponsorship, product placement and sales promotions there are many health and parental pressure groups calling for an alcohol advertising ban. They argue that the extant regulatory controls are ineffective and the children are exposed and influenced by alcohol advertising. Both the alcohol and media industry argue that advertising is essential to sport and culture, and that advertising is to promote brand switching echoing the sentiments of the pro-tobacco lobby prior to the tobacco advertising ban.

These debates around alcohol marketing regulation are not new. Alcohol was a serious problem in France, in the 1960 the French drank over 30 liters of pure alcohol per capita per

year. In response to health and social critiques from stakeholders new legislation called the Loi Evin came into force in 1991. The Loi Evin specifically limits the consumer exposure to pervasive alcohol messages. The volume of alcohol consumption significantly fell in France post the introduction of the legislation. The Loi Evin has been repeatedly challenged in the European courts but found to be proportionate, effective and consistent. Indeed many other stakeholders. Many advocates of alcohol marketing control advocate the adoption of the French Loi Evin throughout Europe as a better way rather than any outright ban on alcohol marketing but still protect young consumers from exposure to persuasion, consumption and consequent harm.

The attitude to alcohol sports sponsorship in France is also more robust, for example France hosted the World and European cup finals without alcohol sponsors. The Loi Evin uses heavy penalties imposed by the courts as a significant deterrent. In contrast the UK operates an industry sponsored self-regulatory system to enforce the advertising code of standards across all media. This is negatively portrayed by commentators as self-serving or putting the fox in charge of the chickens.

UK advertisers should not link drinking alcohol with social or sexual success; portray drinkers as youthful or vigorous, but they can sponsor major sporting and youth events. UK law prevents alcohol sales to anyone under the age of 18. The Advertising Standards Authority regulatory system, the Portman Group (Alcohol Industry Association) own code of practice and Ofcom regulates TV programme sponsorship. UK Alcohol advertising rules tightened in October 2005, in response to the Government's alcohol harm reduction strategy. A further review in 2008, commissioned by the Department of Health, and public consultation in 2009 led to further rules around targeting under-18s; youth programmes; link alcohol with seduction, sex or social success; irresponsible, anti-social, or dangerous behaviour; show alcohol being served irresponsibly; show people drinking and behaving in an adolescent or juvenile way or reflecting the culture of people under 18-years-old; or be shown in publications aimed at under-18s or where more than 25% of the readership is under 18. Similarly alcohol advertising cannot be shown around programmes popular with young people, even after 9 pm. The Portman Group code dates back to 1996 and regulates all drinks marketed in the UK through its code of practice on the naming, packaging and promotion of alcoholic drinks.

2. Some data on alcohol consumption (WHO)

In appendix 1, you can observe some data from WHO that shows that the negative consequences of alcohol consumption (pattern drinking score) are decreasing between 2000 and 2003. Is it linked to alcohol regulation? This paper will investigate this issue.

3. Regulatory content in France and UK

3.1. France

The French are famous worldwide for their history and passion for wine, cognac and champagne. However, in regulatory terms the French are also famous for their stringent alcohol policy. Historically there was a protectionism of their local alcohol industry which was challenged by overseas particularly Scotch whisky producers who took their case to the European court of justice in the early 1980s. France unlike the UK operate a more legislative approach to alcohol regulation rather than an industry self-regulatory system based on a code of advertising practice. In France any alcohol advertising that is controversial or illegal must be resolved in the courts, with strict fines if the law is infringed. Some industry self-regulation

occurs however for example wine marketing initiatives taken by 'Vin et Société' or the establishment of the 'Le Conseil de Modération et Prévention'.

Regaud and Carplet (2004) describe as a paradox how the French national passion for alcohol is also the stringency of the French alcohol regulation. The "Loi Evin" is { Loi n°91-32 du 10 janvier 1991 relative à la lutte contre le tabagisme et l'alcoolisme, Law 91-32. }controlling the consumption and marketing of alcohol and tobacco in France was passed in 1991. The then Minister for Health Claude Evin proposed a radical legislative approach to address the harms of smoking and alcohol. The law prohibits alcohol advertising on television and cinema. What makes the law internationally unique is that it is very unambiguous in its control of the content of advertising both in terms of message and imagery. All alcohol advertising must also contain a message stressing that alcohol can be dangerous to health.

The Loi Evin is radically different to the UK codes which are far less specific as to what advertisers say in their advertising messages; Table 1 and 2 illustrate the key differences between the two countries.

Table 1 Alcohol Marketing Regulation in France

The Loi Evin
Definition of alcohol: Drinks over 1.2 per cent alcohol by volume are considered as alcoholic beverages.
Authorised Media: All press for adults, on billboards, on radio channels (under precise conditions), at special events or places such as wine fairs, wine museums. Prohibited Media: No advertising is allowed on television or in cinemas No sponsorship of cultural or sport events is permitted
Young People: No advertising should be targeted at young people;
Permissible Advertising: Content messages and images should refer only to the qualities of the products such as degree, origin, composition, means of production, patterns of consumption
Health warnings: A health message must be included on each advertisement to the effect that "l'abus d'alcool est dangereux pour la santé": alcohol abuse is dangerous for health.
Article 17: <ul style="list-style-type: none"> ▪ Advertising for alcoholic beverages only in written press (except youth press; radio in specific hours; posters in production areas; posters & in-specialised store & traditional feasts
Article 18: <ul style="list-style-type: none"> ▪ Allowed ad is limited to mention the degree of alcohol, the origin, the denomination, the composition of the product, the name & address of the producer, making-process, and the selling & consumption terms. ▪ All the ads must be followed by: health message: alcohol abuses can damage your health/ harmful in pregnancy ▪ No lifestyle advertising

3.2. UK

The United Kingdom advertising industry in response to the public demands and government policy requirements developed voluntary codes of advertising standards self-regulating the way the alcohol sector communicates information about their products and make informed choices among different products or brands. By definition self-regulation is the process whereby industry actively participates in and is responsible for its own regulation. While this

process varies widely from country to country, the foundation for advertising self-regulation is based on the principles embodied in the International Code of Advertising, issued by the International Chamber of Commerce. The ICAP Code states that advertising should be legal, decent, honest and truthful, prepared with a sense of social responsibility to the consumer and society and with proper respect for the rules of fair competition. Under the principle of self-regulation advertisers must agree to adhere to the agreed industry codes of best practice. The body responsible for advertising standards in the UK is called the Advertising Standards Authority (ASA) whose code of practice or set of guiding principles governing the content of advertisements. The UK also are a member of The European Advertising Standards Alliance (EASA) recommends that the body responsible for the practical application of the self-regulation across Europe. The UK codes also feature specific regulations pertaining to the alcohol sector. In addition to self-regulatory bodies, most of the major alcohol beverage companies are bound by their own industry advertising codes operated by the Portman group. Thus the self-regulatory system in the UK is self-policed avoiding unwanted government intervention and costly. In more restrictive countries, such as France, the statutory authorities and national legislation control alcohol advertising content and media placement.

In the UK a system of co-regulation of alcohol marketing operates. Ofcom, the communications regulator has contracted out regulation of alcohol advertising on broadcast media, with the relevant code administered by the Advertising Standards Authority (ASA). However, Ofcom retains ultimate powers of control and adjudication. Alcohol advertising on broadcast media is governed by the Broadcast Committee of Advertising Practice (BCAP) code (BCAP, 2010). Beyond the broadcast media code, a system of self-regulation is in operation. Alcohol advertising in non-broadcast media is covered by the Committee of Advertising Practice (CAP) code (CAP, 2010). Members of the advertising industry predominantly populate both BCAP and CAP. Other forms of alcohol marketing is covered by the voluntary The Portman Group which is an industry organization, has a voluntary Code of Practice on the Naming, Packaging and Promotion of Alcoholic Drinks which covers all other forms of alcohol marketing (Portman Group, 2008). Across each of these codes are common themes governing what can and cannot be included in alcohol marketing activity (see Table 2). Despite the existence of regulatory systems for alcohol marketing in the UK and many other developed countries, the effectiveness of such systems has often been questioned (Casswell and Tharangi, 2009; Hastings et al. 2010).

The effectiveness of self-regulation on alcohol advertising has rarely been studied systematically, although the issue is often hotly debated in alcohol and health policy circles to determine whether the alcohol beverage industry is effective in policing itself when it comes to commercial communication. The beverage alcohol industry prefers self-regulation to government controls. The Advertising Standards Authority (ASA) established in 1962 Responsibility is now responsible for self-regulation in the United Kingdom in non-broadcast, broadcast and digital media. The Portman Group, also industry-funded sets up a voluntary Code of Practice on the naming, packaging and merchandising of alcohol beverages in April 1996. This was largely a response to public and government concern about “alcopops”. This code was welcomed, but was also criticized for its lack of independence in monitoring its members. Later revisions to the code implemented bolder statements of alcohol content and more adult labelling. There is also a pre-vetting component, which allows manufacturers to submit relevant new products to the Portman Group for pre-launch clearance.

In 1984, The Amsterdam Group (TAG), another industry-sponsored pan-European organization, produced its own guidelines and sector-specific rules for European beer, wine,

spirits and cider including enforcement and sanctions. By 2000, the member companies of TAG endorsed Standards on Commercial Communication for Europe. These standards address issues concerned with misuse, minors, driving, the workplace, medical aspects, alcohol content, performance, social/sexual aspects. EASA (European Advertising Standards Alliance) advocates that a properly designed and well administered self-regulatory system can provide a flexible, inexpensive and effective means of enabling the responsible majority of the alcohol industry to control the irresponsible minority. Public health advocates particularly in light of WHO recommendations and global alcohol policy conferences continue to call for stricter regulation even the banning of any alcohol advertising. The social and health costs and harm particularly how alcohol advertising might affect young people are key regulation concerns. These critics believe that advertising increases alcohol abuse and that self-regulation does little to prevent this (Hill & Casswell 2000).

Table 2 Alcohol Marketing Regulatory Codes in the UK

Theme	Regulatory Code		
	BCAP	CAP	Portman Group
Youth Appeal	Advertisements must not be likely to appeal strongly to people under 18, especially by reflecting or being associated with youth culture or showing adolescent or juvenile behaviour.	Marketing communications must not be likely to appeal particularly to people under 18, especially by reflecting or being associated with youth culture.	A drink it's packaging and any promotional material or activity should not in any direct or indirect way have a particular appeal to under 18s (in the case of sponsorship, those under 18 years of age should not comprise more than 25% of the participants, audience or spectators).
Personal/Social Success	Advertisements must neither contribute to an individual's popularity or confidence nor imply that alcohol can enhance personal qualities. Advertisements must not imply that drinking alcohol is a key component of social success or acceptance or that refusal is a sign of weakness. Advertisements must not imply that the success of a social occasion depends on the presence or consumption of alcohol.	Marketing communications must not claim or imply that alcohol can enhance confidence or popularity.	A drink it's packaging and any promotional material or activity should not in any direct or indirect way suggest that consumption of the drink can lead to social success or popularity.
Sexual Success	Advertisements must not link alcohol with sexual activity, sexual success or seduction or imply that alcohol can enhance attractiveness. That does not preclude linking alcohol with romance or flirtation.	Marketing communications must neither link alcohol with seduction, sexual activity or sexual success nor imply that alcohol can enhance attractiveness.	A drink it's packaging and any promotional material or activity should not in any direct or indirect way suggest any association with sexual success.
Driving & Sport	Advertisements may feature sporting and other physical activities (subject to other rules in this section) but must not imply that those activities have been undertaken after the consumption of alcohol.	Marketing communications must not imply that alcohol can enhance mental or physical capabilities; for example, by contributing to professional or sporting achievements.	N/A

Drinking Behaviour	Advertisements may include alcohol sales promotions but must not imply, condone or encourage immoderate drinking.	Marketing communications must be socially responsible and must contain nothing that is likely to lead people to adopt styles of drinking that are unwise. For example, they should not encourage excessive drinking. Marketing communications that include a sales promotion must not imply, condone or encourage excessive consumption of alcohol.	A drink it's packaging and any promotional material or activity should not in any direct or indirect way encourage illegal, irresponsible or immoderate consumption, such as drink-driving, binge-drinking or drunkenness;
Aggression, toughness	Advertisements must not link alcohol with daring, toughness, aggression or unruly, irresponsible or antisocial behaviour.	Marketing communications must neither show, imply, encourage nor refer to aggression or unruly, irresponsible or anti-social behaviour nor link alcohol with brave, tough or daring people or behaviour.	A drink it's packaging and any promotional material or activity should not in any direct or indirect way suggest any association with bravado, or with violent, aggressive, dangerous or antisocial behaviour
Strength and Power	Advertisements must not imply that a drink may be preferred because of its alcohol content or intoxicating effect.	Marketing communications must not imply that a drink may be preferred because of its alcohol content or intoxicating effect	A drink it's packaging and any promotional material or activity should not in any direct or indirect way have the alcoholic strength, relatively high alcohol content, or the intoxicating effect, as a dominant theme

(Source: Adapted from BCAP, 2010; Portman Group, 2008).

4. Discussion on content and differences

The nature and content of alcohol marketing is radically different in France compared to the UK as a result of the Loi Evin module. The character and tone of alcohol marketing are considerably different. French campaigns are stark and in contrast to the UK feature product photographs only and factual claims. In the UK alcohol campaigns use images of drinkers or stylish atmospheric social scenes with attractive models or humor, sports and celebrity appeals. The key differentiation is the production versus consumption emphasis in the two nation's alcohol advertising. In France the consumer is never shown, in the UK the consumer is usually more central to the message.

Significant differences are also seen in the semiotics emotion appeals used to advertise alcohol in the UK and the ubiquity of sex, sports, youth culture, and celebrity appeal. International advertising and sponsorship by alcohol brands have been disrupted directly by the French Loi Evin policies such as the World Cup when held in France in 1998. Alternative non-alcohol brand sponsors had to be found despite the strong industry lobbying.

Despite the Loi Evin's unique approach to alcohol marketing control, many other European countries have resisted the adoption of similar legislation despite calls from the medical profession and other concerned stakeholder groups. Indeed, in France alcohol industry lobby groups every couple of years endeavor to have the law replaced by the industry self-regulatory model as operates in the UK. In the last decade the Loi Evin had been amended to

include as the use of outdoor media and in sports venues. A significant development however has been the growth of internet as an advertising media and more recently the arrival of digital, mobile and social media. Alcohol producers have been quick to exploit new technology to circumvent the regulations and exploit such loopholes in the legislation. Other elements of the marketing communications mix have been used including direct marketing, ambient, product placement, PR and publicity, student nights, sampling, music videos and gaming.

The effectiveness of the Loi Evin versus industry self-regulation is a matter of ongoing debate particularly in the burgeoning era of social media marketing. Few studies have tried to formally assess the effectiveness of these alternative approaches to curbing alcohol harm. Indeed such an assessment is difficult to scientifically prove. However, the relative merits of a specific allowable model as opposed to a loose interpretive approach to alcohol advertising may be a way forward. If we compare the volume of advertising complaint activity in the UK compared to France we see a significant variation.

The proponents of industry self-regulation such as the ASA or EASA, argue that the tax payer benefits if the industry self-polices but this ignores who pays for what about the social costs of alcohol marketing. Scientific proof is always a difficulty to prove cause and effect. However studies show that alcohol marketing increases the likelihood of consumption and volume usage (ADD REFS). Advertising is but one element in the marketer's promotional arsenal. However, sales promotion, PR, sponsorship, merchandising and social increasingly significant in promoting brand adoption of new products and recruitment of new younger consumers. Studies show that price, availability, marketing, peer pressure, demographic and psychological factors all can play a role (ADD REFS).

Pro-alcohol groups stress weak links between advertising and alcohol consumption, indeed that marketing is more about brand switching and establishing competitive positions. Anti-alcohol pressure groups decry attempts to curb commercial freedoms on a legal product and that drinkers have rights to do so too. Responsible advertising groups however wish to counterbalance the harms of consumption and education of vulnerable groups. The Loi Evin is a useful alternative to total or partial bans of alcohol advertising in that the advertiser is restricted in using specific techniques and persuasive tactics. Rather than the consumer focus the product focus is key showing only the bottle and describing its ingredients and features up front. However, advertising creatives often use of unregulated marketing tools e.g. Packaging and even typefaces circumvent such controls e.g. the use of the 'I love Kitty' cartoon on a wine bottle with blatant youth appeal.

Alcohol consumption patterns in the UK and France highlight differences that suggest more rigorous evidence of the effectiveness of the two countries regulatory approaches.

In France between 1960 and 2004, consumption of alcohol had decreased significantly from 30 to 13 liters of pure alcohol per capita per year in contrast to the UK where the heavy episodic drinking is higher.

In a competitive marketing environment brands will push against the legal limits. New technology is now proven useful to circumvent regulations (Hastings et al. 2010) and powerful means to reach young consumers. The UK regulators receive many complaints about alcohol brands given concern over the binge culture, negative health consequences and the continued use of sexual and social success appeals. The Loi Evin thwarts these marketing tactics being used.

While the Loi Evin can be seen to be effective in controlling the nature and content of advertising for alcohol it, however is limited in its current ability to control the volume of advertising or to address the use of unregulated digital media channels. In contrast the UK's Self-Regulatory model embeds a reactive rather than proactive approach offered by the preventive ethos of the Loi Evin. The worry is that as alcohol marketers target new consumers and even overseas developing markets that the regulations are not robust enough to curb unethical practice and antisocial behavior and unhealthy consequence as a result of irresponsible alcohol consumption.

The precedential case of tobacco is a salutary lesson for complacency in this regard. The industry will react slowly and NGOs and governments need to be vigilant to test the CSR claims of the industry as words and deeds. It may be appropriate for the EU to adopt alcohol marketing legislative framework particularly as products and images of alcohol are transmitted across borders. Indeed the internationalizations of life styles, particularly those of the younger generation, have been deployed by the multinational drinks industry in the development of their marketing strategies.

Organizations like ANPAA and Eurocare are working together for a European control of advertising. They are suggesting that the Loi Evin framework should be used to address alcohol market across the wider European context. Whilst the EASA and other industry proponents of industry self-regulation argue for the adoption of its philosophy as a social case for alcohol is warranted for a pan European even global compact to control advertising using the precepts of the Loi Evin. The industry must be seen to be addressing the current growth trends in harmful alcohol consumptions globally and the WHO putting alcohol as the third highest risk to health worldwide. Recent global alcohol policy conferences have called for a "Loi Evin pour le monde", leading to a worldwide ban on alcohol promotion on TV, social media and sponsorship of sport or events with youth appeal.

Nongovernmental organizations such as the French "Association Nationale de Prévention en Alcoologie et Addictologie" and the European association Eurocare, have adopted political and ethical positions, arguing that the EU can no longer content itself with economic objectives, but that it must become a social community where the collective interest has priority over particular economic interests. This collective interest is based on the fact that alcohol is not a product like any other: as a harmful product causing addiction, and that its use must be controlled by the public authorities.

6. Implications on policies' effectiveness

There are many implications from this study for alcohol producers, policy makers and marketing practitioners. The findings demonstrate the regulatory regimes in the UK and France are ideologically different and produce potentially different impacts on alcohol consumption behaviors. The language, imagery and content of the examples of alcohol marketing examined here, contrast the differences in the two regulatory regimes. The corporate social responsibility policy of alcohol producers operating in both regions is one and the same yet the implementation of the marketing communications for brands in both countries are radically different in style and content. Large alcohol producers, who publish CSR best practice guidelines concerning alcohol marketing (see Diageo, 2010), do not seem to adhere to these as rigidly as one might expect particularly in new media contexts. Alcohol producers are seemingly taking advantage of lack of regulation in the realm of branded community websites, advergames and social media and event sponsorship. The findings also

have implications for marketing practitioners. Marketing practitioners should be revisited their strategy and executions in a more socially responsible and culturally sensitive way.

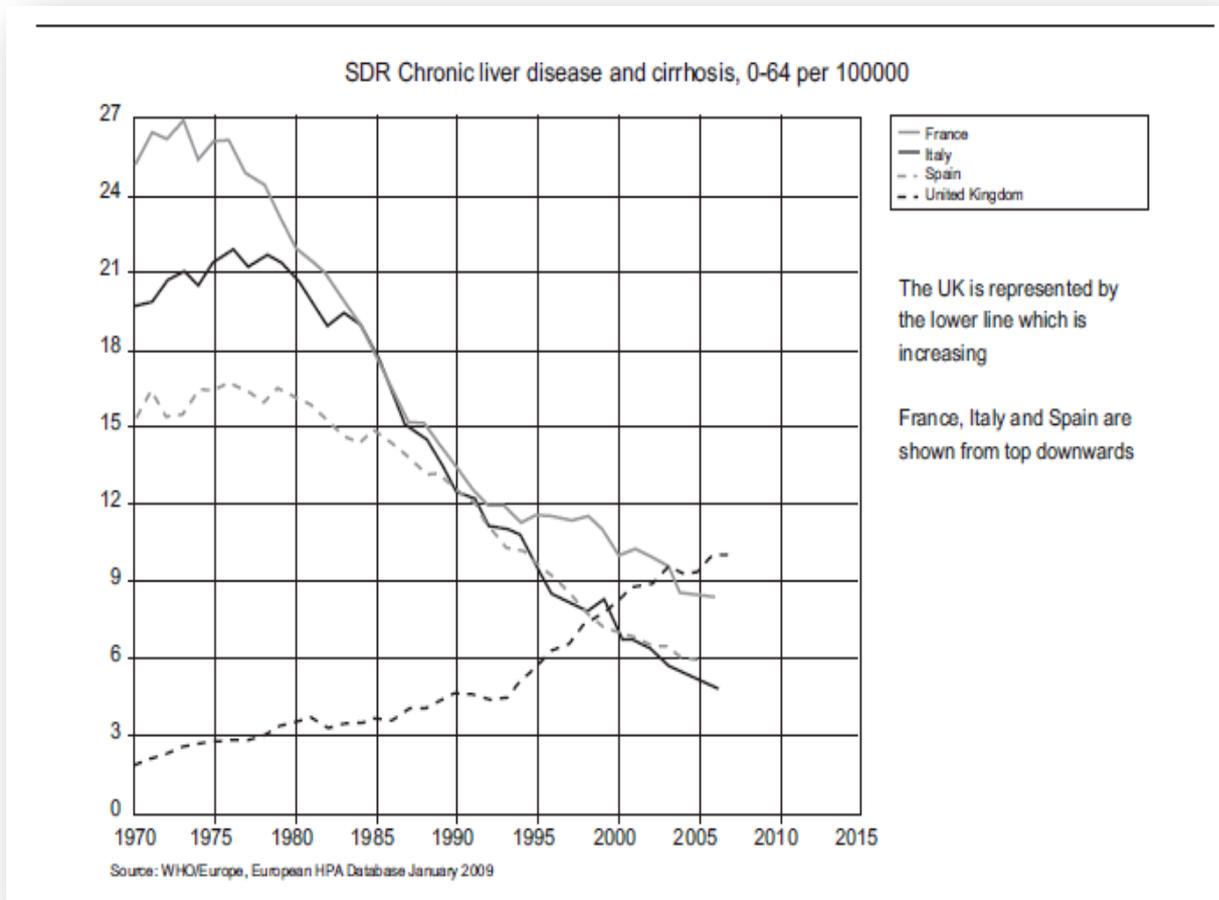
7. Further Research

Further research is warranted to explore the effectiveness of the regulation in the digital world using the industry self-regulatory model or interdependent legislator model.

It would also be interested to compare the public policy concerning wine and other alcohol beverages. Hoffmann (2012) pinpoints in his research that a major drawback of the studies addressing the impact of international alcohol policies is that *'they do not pay attention to the important influence of the differences between alcoholics and average consumers'* (p. 142). According to this perspective, data included in Illustration 1 may not necessarily by itself provide a contribution to the understanding on how wine marketing can impact the health behavior because there is a need to distinguish 'alcoholics' on the one hand from 'the average consumer' on the other hand: *'Contrary to alcoholics, average consumers will adapt the consumption of alcoholic beverages in type and quantity towards a specific situation with the preferences becoming less important'* (Hoffmann, p. 139).

In addition, a clarification on how the public authorities use taxes or minimal pricing to curb consumption of wine, beer and spirits in both countries would be helpful in order to understand different paths followed in both countries.

Illustration 1. Chronic Liver Disease and Cirrhosis in Europe 1970-2015



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Appendix 1. COMPARATIVE Data on alcohol consumption France & UK

PATTERNS OF DRINKING

ABSTAINERS (15+ years), 2003			
	Males	Females	Total
Lifetime abstainers	10.4%	49.6%	31.7%
Former drinkers	18.3%	20.3%	19.4%
Abstainers*	28.7%	69.9%	51.1%

* Persons who did not drink in the past 12 months.

DRINKERS ONLY	
Adult (15+ years) per capita consumption*, total	13.09
Adult (15+ years) per capita consumption*, males	14.81
Adult (15+ years) per capita consumption*, females	9.44
Heavy episodic drinkers*† (15–85+ years), males, 2003	27.3%
Heavy episodic drinkers** (15–85+ years), females, 2003	4.0%

* (Recorded + unrecorded) in litres of pure alcohol, average 2003–2005.

** Had at least 60 grams or more of pure alcohol on at least one occasion weekly.

PATTERNS OF DRINKING SCORE							
Patterns of drinking score*	LEAST RISKY	1	2	3	4	5	MOST RISKY

* Given the same level of consumption, the higher the patterns of drinking score, the greater the alcohol-attributable burden of disease for the country.

UK Data Source (WHO)

PATTERNS OF DRINKING

ABSTAINERS (15+ years), 2000

	Males	Females	Total
Lifetime abstainers	8.9%	15.2%	12.2%
Former drinkers	1.5%	2.9%	2.2%
Abstainers*	10.4%	18.1%	14.4%

* Persons who did not drink in the past 12 months.

DRINKERS ONLY

Adult (15+ years) per capita consumption*, total	15.62
Adult (15+ years) per capita consumption*, males	21.58
Adult (15+ years) per capita consumption*, females	9.46
Heavy episodic drinkers** (15–85+ years), males	—
Heavy episodic drinkers** (15–85+ years), females	—

* (Recorded + unrecorded – tourist) in litres of pure alcohol, average 2003–2005.

** Had at least 60 grams or more of pure alcohol on at least one occasion weekly.

PATTERNS OF DRINKING SCORE

Patterns of drinking score* LEAST RISKY 1 2 **3** 4 5 MOST RISKY

* Given the same level of consumption, the higher the patterns of drinking score, the greater the alcohol-attributable burden of disease for the country.

UK data Source (WHO)

Appendix 2. Contrasting Practices of Alcohol Advertising France and UK



UK Source : (www.Courage Beers.co.uk)



France Source : (www. Nobel beers.com)

Influence of Price and Decision Style on Wine Quality Judgment and Purchase Intentions

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Abstract:

◦*Purpose: We sought to test if (a) price information given to participants (truthful, non-existent, or wrongful) as well as their (b) self-reported general decision styles (deliberate, intuitive) does have an influence on wine quality judgments and on purchase intentions.*

◦*Design/methodology/approach: Using a one-factorial blind tasting experiment of two wines of different quality, we have randomly assigned N= 104 subjects to three different price information groups: truthful, non-existent, and wrongful price information. In addition, deliberate and intuitive decision styles were assessed as potential moderators of wine-quality judgments and purchase intentions using psychometric instruments (Betsch, 2004).*

◦*Findings: We find that wine quality will prevail, i.e. that wine quality judgments and purchase intentions were unaffected by price information. However, decision styles do actually moderate comparative wine quality judgments and purchase intentions. While the association between intuitive decision making and wine quality judgments and purchase intentions is unaffected by price information, more deliberate decision makers are less able to discriminate the higher quality wine from the lower quality one especially when no or an incorrect price is given to them.*

◦*Practical implications: Because consumers tend (on average) to be able to discriminate between different levels of wine quality regardless of price information, the results suggest that wineries should employ value-based pricing strategies in the long run. Moreover, the results also indicate that wine quality assessments are less accurately captured by consumers using deliberate procedures (as opposed to those with an intuitive judgment style).*

Key words: Price information, decision style, purchase intentions.

1. INTRODUCTION

It has been observed that price information can shape consumer preferences for a variety of goods, including wine. Moreover, it has been argued that intuitive decisions are faster, more economic and often also simply better than rational decisions requiring lengthy deliberation (Gigerenzer, 2007). In this paper, we try to link information content and decision style in order to determine if wine quality judgments and purchase intentions are affected by price information and decision style (e.g. if more deliberate decision-makers prevail while more intuitive decision-makers are manipulated by incorrect price information given to them).

The price-quality controversy is a long-standing debate whether extrinsic characteristics of a wine allow consumers to anticipate the sensory experience and actual enjoyment that they will eventually derive from buying and consuming a wine. Without having tasted a wine and without a complete set of quality information, extrinsic characteristics such as price or expert ratings may provide consumers with cues as to how a wine may taste.

1.1 Literature

For many consumers, the single most important source of information about wine quality is price (Schnabel and Storchmann 2010) and as for most goods, a higher price is typically perceived as a sign of better quality (Tellis and Wernerfelt 1987). Moreover, wine is also regarded as a creative product for which reviews of experts and critics play a significant role in guiding consumer choices. Numerous studies have shown positive associations between wine prices and expert quality evaluations (e.g. Landon and Smith, 1997; Oczkowski, 2001; Schamel and Anderson, 2003; Lecocq and Visser 2006; Hadj et al., 2008).

In actual taste experiments, both extrinsic characteristics as well as experimental designs seem to shape consumers' tastes and preferences in regards to intrinsic wine quality attributes. Siegrist and Cousin (2009) report a blind tasting experiment where participants' evaluations of a wine are influenced by wine critic's ratings only if the rating is revealed before the tasting, but not if it is revealed after the tasting. In another blind tasting experiment, Goldstein et al. (2008) observed that when no price information is given, consumers will not rate relatively expensive wines any better than relatively cheap ones. Almenberg and Dreber (2009) found that people would appreciate a wine much more if they knew it was expensive. There is also some intriguing evidence employing neuroscience and functional MRI which shows that increasing its price alone can make the same wine more pleasant to consumers (Plassmann et al., 2008). Finally, Wansink et al. (2007) report that their participants' ratings and quantity consumed were influenced by stating a different region of origin of a given wine.

Ample research does also suggest that individual differences such as personality, motives, and dispositional decision making styles do actually influence and moderate consumers' quality judgments and purchase decisions in various settings (e.g., Bosnjak, Galesic & Tuten, 2007; Orth, 2005; Mowen, 2000). Most prominently, the idea that deliberate, cognition-based judgments do in general lead to more accurate evaluations and decisions was challenged by Gigerenzer (2007). In a nutshell, Gigerenzer (2007) illustrates that in many domains, 'gut feelings', or intuitive/affective decisions, are not only fast and frugal, but do actually result in more accurate judgments, decisions, and (purchase) behaviors. While we are not aware of any previous studies on the influence of intuitive decision making on wine quality and wine purchase intention formation, we presume that the same general mechanisms are also applicable in this field.

1.2. Objective and Research Questions

Our objective is to investigate whether wine quality will prevail, suggesting value-based pricing strategies for wines, or whether our subjects can be manipulated by incorrect price information given to them. Moreover, we would like to examine whether this outcome is any way dependent on decision styles as a potential moderator. Accordingly, we sought to test if (a) price information given to participants (truthful, non-existent, or wrongful) as well as consumers' (b) self-reported general decision styles (rational, intuitive) does have an influence on wine quality judgments and on purchase intentions.

2. METHODOLOGY

In order to carry out the study, we set up a blind tasting experiment during a long night of research held at our university. We purchased two white wines (2009 vintage) from a local winery similar in terms of composition but distinct in terms of quality and price. The first wine was a cuvee of Chardonnay, Pinot Blanc, Sauvignon Blanc priced at 6€ while the second more expensive wine was a higher quality cuvee of Chardonnay, Pinot Blanc, Gewürztraminer, and Sauvignon Blanc priced at 12.50€. The wines were chilled to be of optimal drinking temperature. Moreover, the participants could not see the bottles in order to get any cues about potential prices or quality. The design of the experiment was such that the participants thought they would be served one out of three possible wine pairings. In reality, we gained the two additional pairs by giving no price information and by switching the price information around. Overall, 104 individuals representing a set of ordinary wine consumers participated in the experiment and were randomly assigned to one of the three experimental groups. In Table 1, we summarize the experimental design.

Table 1: Experimental Design

Experimental Groups	Price Info Given	Actual Price
Pair #1: Correct price information	6,00 Euro	6,00 Euro
	12,50 Euro	12,50 Euro
Pair #2: No price information (control)	No price info	6,00 Euro
	No price info	12,50 Euro
Pair #3: Incorrect price information	12,50 Euro	6,00 Euro
	6,00 Euro	12,50 Euro

Only knowing the price information given to them, the participants were asked to evaluate the wines according to color, smell, taste and their overall impression using 5-point Likert scales (i.e. four wine quality indicators). Then they were asked whether they would buy the wine either for themselves, buy it as a present, and if they would offer it to their guests also using 5-point Likert closed-ended response formats (i.e. three purchase intentions questions).

Furthermore, we asked the participants a series of questions on their dispositional decision making style and behavior. According to Betsch (2004), the degrees of intuitive (or affective) and deliberate (or cognition-based) decision making styles can be conceptualized as individual difference constructs applying to a broad set of behavioral contexts. Most importantly, both tendencies should be – according to Betsch (2004) - viewed as independent dimensions, and not just extreme points on a single vector. Accordingly, Betsch (2004) has developed and validated two independent scales measuring an individuals' preference for intuition and deliberation. Out of the questions developed by Betsch (2004) comprising nineteen 5-point

Likert type agree/disagree items, we used four items with high item-to-total correlations measuring the degree of intuitive decision-making, and another four with high factor loadings on the deliberate decision making construct. To derive the scale scores for deliberate and intuitive decision making, answers to the 2(deliberate/intuitive)*4 item sets were averaged and used in the analyses.

3. RESULTS

For each of the seven indicators described above (four wine quality indicators, three purchase intention questions), we did compute difference scores by subtracting the values for the high quality wine from the corresponding scores of the lower quality wine. These difference scores reflecting comparative judgments were used in all further analyses. Positive scores would indicate a more favorable evaluation of the (objectively) better wine, zero scores would indicate no difference in participants' judgments, and negative scores would mean that the (objectively) lower quality wine was evaluated better.

Computed across all three experimental groups, the seven mean difference scores were all positive, indicating a more favorable evaluation of the (objectively) better wine. The mean score differences were as follows: color 0.46, smell 0.58, taste 0.56, overall evaluation 0.31, buying for oneself 0.42, buying as present 0.45, and offer to guests 0.40.

To test the main effect of price information factor on wine quality judgments and purchase intentions, we performed a series of independent ANOVA analyses (i.e., separate analyses for each dependent variable).

The nature of price information (correct, none or incorrect information) did not influence any of the seven comparative judgments. The relative judgments across experimental conditions for color ($F = .63$, $df = 2$, $p = .54$), smell ($F = .34$, $df = 2$, $p = .71$), taste ($F = .12$, $df = 2$, $p = .88$) and the overall relative evaluation of the two wines ($F = .56$, $df = 2$, $p = .57$) did not differ. Consistent with the quality judgments, purchase intentions also did not differ across the three experimental groups (buying for oneself: $F = .28$, $df = 2$, $p = .07$; buying as present: $F = .03$, $df = 2$, $p = .97$; offer to guests: $F = .03$, $df = 2$, $p = .98$).

To test whether self-reported general decision styles (rational, intuitive) have a systematic influence on our dependent variables, we have correlated the intuitive scale values and the deliberate scale scores with the seven comparative judgment indicators for each experimental group. The results are summarized in Table 2 and only depict significant correlations ($p < 5\%$). Positive correlations would indicate that with increased scores on the respective decision-making style dimension, the relative difference between the high versus low quality wines do also increase correspondingly. A negative correlation would mean that a more pronounced decision-making style corresponds to smaller differences between the high versus lower quality wines.

Table 2: Correlations between decision-making styles and comparative wine judgments across experimental conditions (only significant correlations at $p < .05$ are reported)

Decision making styles by experimental conditions		Wine quality comparative judgments				Purchase intentions comparative judgments		
		color	smell	taste	overall	Buy for oneself	Buy as present	Offer to guests
Correct information	Intuitive							
	Deliberate							
No price information	Intuitive							
	Deliberate			- .36	- .37			
Wrong price information	Intuitive							
	Deliberate			- .39		- .38		- .48

In light of the results summarized in Table 2, it is evident that all significant correlations are negative and consistently related to the degree of deliberate decision-making style. Moreover, the negative correlations did emerge in the control condition (no price information) and in the wrong price information condition only. In the control condition, the degree of deliberate decision making was correlated with comparative taste ($r = -.36$) and overall wine quality evaluation ($r = -.37$). In the wrong price information group, negative correlations emerged for taste ($r = -.39$), and for two purchase intentions comparative judgments ($r = -.38 / -.48$).

Overall, the results summarized in Table 2 suggest that intuitive decision making and comparative judgments are unrelated across all price information conditions. In contrast, as the amount of rational decision making increases, the ability to discriminate the higher quality wine from the lower quality one decreases, namely when no or an incorrect price is given to subjects.

4. SUMMARY AND DISCUSSION

In this paper, we tested if the price information content given to participants (truthful, non-existent, or false) as well as their self-reported general decision style (deliberate vs. intuitive) has an influence on wine quality judgments and on purchase intentions. As a first result, we find that wine quality prevails, i.e. consumers' quality judgments and purchase intentions on average tend to be unaffected by price information factor. As an implication, this result suggests that wineries ought to employ value-based pricing strategies when marketing their wines. That wineries actually do this, i.e. price their product based on the value it creates for the customer is reinforced by numerous hedonic studies examining consumer willingness to pay (e.g. Oczkowski, 2001; Schamel and Anderson, 2003; Lecocq and Visser 2006). Over time, maturing wine markets and competition will assure that prices also have to meet wine quality and value expectations of consumers. It is also in line with evidence suggesting that wine prices serve as signals which over time respond positively to quality and negatively to increasing information levels (Bagwell and Riordan, 1991; Schnabel and Storchmann, 2010).

As a second result, we obtain that decision styles actually moderate comparative wine quality judgments and purchase intentions. While the association between intuitive decision making and wine quality judgments as well as purchase intentions is unaffected by price information, more deliberate decision makers are less able to discriminate the higher quality wine from its lower quality counterpart especially when prices are not revealed or false. Thus, gut decisions also work with wine.

We also note that our first result is in contrast to studies reporting that prices affect “taste” (e.g. Plassman et al, 2008; Goldstein et al, 2008, Almenberg and Dreber, 2009). While our experiment gave participants a clear choice between two wines similarly composed but distinct in terms of quality and price, it will require further investigation, to see how consistent this result is using other wine styles and varying experimental settings.

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What wineries do ... Is it what customers want? Relationship Marketing in the German Wine industry

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Abstract

◦*Purpose:* This paper analyzes the communication channels employed for relationship marketing by the German wine industry. It comprises a comparison between customer retention activities of wineries with the demanded activities on the customer side.

◦*Design/methodology/approach:* We conducted our analysis by engaging two sides: On the supply side, around ca. 150 wineries responded to a questionnaire about their activities in the field of relationship marketing. The questionnaire focused on new customer acquisition, customer retention and customer win-back activities. On the demand side, around 500 customers of German wineries have been surveyed about their preferred activities of wineries as well as their most popular communication channels.

◦*Findings:* The findings of the two studies point out that most wineries conduct retention activities without having a clear vision of their strategic objectives. Financial resources are spent without measuring the outcome i.e. the effectiveness of different activities. Furthermore, there is a gap between activities preferred by customers and those actually applied by wineries.

◦*Practical implications:* Wineries should analyse which of their marketing activities are economically most successful and popular with their customers and focus as well on different customer preferences within different age groups.

Keywords: Relationship Marketing, Wine industry, Customer retention, Consumer behaviour

1. INTRODUCTION

Over the last few decades, marketing has gone through some major changes. It has evolved from an anonymous, mass-oriented and transaction-driven practice to a more personalised and relationship based approach with the focus on the individual customer (Krafft 2007, Reichheld 1993, Reichheld 1996, Rust et al. 2010). This progress has led to the need of building long-lasting, profitable customer relationships (Reinartz and Kumar 2000, Homburg and Bruhn 2008, Berger and Nasr 1998). Relationship marketing has rapidly improved by the development of new customer relationship management methods such as sophisticated bonus, rebate and loyalty programs as well as by the development of enhanced IT processes (Leußer et al. 2011, Morgan and Hunt 1994).

Relationship marketing comprises several monetary and non-monetary advantages. On the monetary side customers who are in a long-lasting business relationship tend to buy more in terms of volume, and/or more frequently and are less price-sensitive (Krafft and Goetz 2011, Reinartz and Krafft 2001, Leußer et al. 2011, 27). Furthermore, customer retention activities oriented towards existing customers are less costly than activities to acquire new customers (Reichheld 1993). On the non-monetary side, relationship marketing leads to a higher focus on the customer basis with the effect of higher customer satisfaction and customer loyalty. Recent studies identified the positive association between customer satisfaction and the recommendation of a company or products to friends (Leußer et al. 2011, Krafft and Goetz 2011). This fact is getting even more important with the development of social media as a tool of two-way communication allowing customers to share their opinions (Szolnoki et al. 2013). In addition, customers are integrated more deeply into the company's product development process; offering them a role as a "co-producer" (Fait et al. 2013, 104, Hollebeek and Brodie 2009).

As the wine industry faces increasing competition relationship marketing is seen as a necessary tool for wineries to establish a competitive advantage on the long-term (Rueger-Muck and Wegmann 2013, 40). In addition, Bhattacharya and Bolton (2000) described the fruitful application of relationship marketing to mass markets such as the wine industry. So far, there is still very limited research on relationship marketing within the German wine industry (Lockshin and Corsi 2012, Tach 2009). Therefore, the purpose of this research paper is to explore the *status quo* of relationship marketing on the side of wineries as well as on the customer side. The study also looks at how wineries handle customer complaints.

This paper is structured into four parts; an introduction which explains the methodology and design of the study, a findings section which outlines the results of the two studies; and a section of conclusion which summarises our findings and provides theoretical and managerial implications for the German wine industry.

2. METHODOLOGY

The *first survey*, focusing on German wineries, was carried out in August 2012 to a segment of approx. 200 wineries throughout Germany that are co-operation partners of Neustadt Wine Campus, Germany, located in the south of the Rhineland Palatinate. It is a cooperation between the three Universities of Ludwigshafen, Bingen and Kaiserslautern and the Rhineland Palatinate Service Centre for Rural Regions. In addition, the questionnaire was distributed by a newsletter of the German Wine Institute (DWI) that reaches about 1.500 wineries, located in all German wine regions. A sample of approximately 150 wineries replied to the online questionnaire. So the response reaches the total of approx. 9%.

The survey contained topics such as the importance of customer retention activities for wineries

in general as well as an analysis of the frequency and content of customer retention activities wineries had done in the previous year. In addition, the survey investigated the planning and evaluation phases of such activities as well as the goals which have been achieved by them. Wineries were also asked which communication channels they use. Finally, the measurement of customer satisfaction and the handling of complaints had been examined.

Almost half of the sample is situated in the region Palatinate (49%), followed by the regions Baden (18%) and Rhinehessen (13%). The remaining 20% are distributed among the regions Nahe (5%), Württemberg, Moselle (both 4%), Franconia, Rheingau, Ahr (each 2%) and Middle Rhine (1%). 21% of the wineries state that their size of company is less than 10 ha. 40% of the wineries cultivate 11-20 ha, 40% of the wineries have more than 20 ha. Regarding staff, 42% of the wineries have 1-4 employees, followed by 34% that have 5-10 employees and 20% that have 11-25 employees. Only 4% of the wineries state that they have more than 25 employees.

The *second survey which* focused on the customer was conducted between March and July 2013 in Germany. The sample consists of 496 respondents from which 354 respondents came from a representative online panel. Participants were required to fill out a self-administrated, web-based questionnaire distributed online. The remaining 142 respondents were customers of wineries which had distributed the survey in their sales rooms.

The questionnaire itself consisted of several parts regarding preferred retention activities by wineries (i.e. invitation for wine tasting.), preferred contact frequency of information offered by a winery, most popular communication channels, reason for initial purchase from a winery as well as customers' satisfaction with the handling of complaints.

Demographically, the respondents were 60% males and 40% females. One-third of the participants live in a designated German wine region. Regarding age 30% are below 40 years old, while 39 % of the participants are within between 40 and 60 years of age. 31% of the respondents are older than 60 years.

3. FINDINGS

3.1. Customer retention of wineries

When asked how important "customer retention" was, 56% of *wineries* rated the topic of "customer retention" with "high priority". The topic is seen as even more important for the next years as 75% of the wineries rated customer retention with "high priority" in the future. However, only 35% of the participants indicated that customer retention activities currently have a high priority in their own company. On average, wineries conducted five activities to keep existing customers loyal, four activities were carried out to win new customers and two activities to win-back lost customers who had not purchased within the last two years.

The majority of wineries do not possess software appropriate for documentation, analysis and control of success for their retention activities. Only 48% of the wineries indicated having software for documentation. Only 32% stated to have software for analysis and only 23% indicated to have software enabling them to measure and compare the success of their different activities (23%). Besides the software issue, only a few wineries evaluate the success of their retention activities at all: 12% "always", 26% "frequently", 39% "sometimes" and 23% "never".

3.2. Preferred versus applied communication channels

Changing the perspective, **Figure 1** gives an overview of the most popular communication channels by *customers*. From their perspective, the *customer letter* is ranked first as preferred

channel to communicate (45%) followed by *E-Mail* (43%) and the *webpage* (32%). This shows that the classic customer letter gets into more competition with digital information channels.

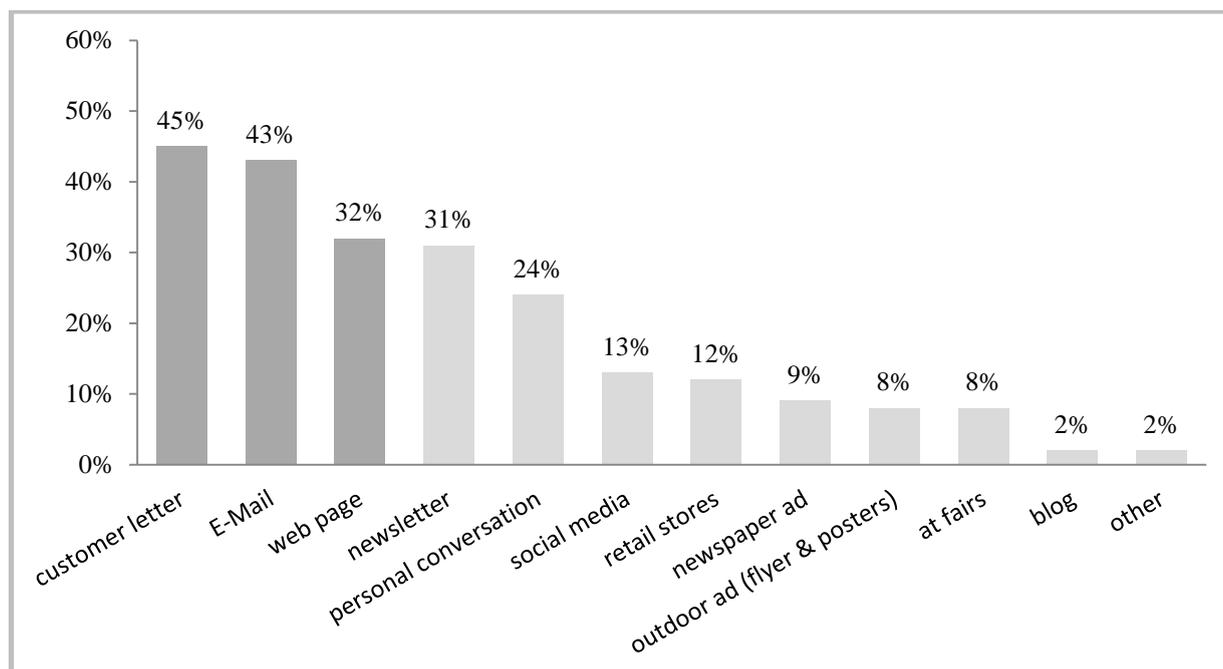


Figure 1: Preferred communication channels (multiple answers possible), n=496

As a next step these results were tested on *age* by doing a Phi-and Cramer V-test. The significant differences of preferred channels are indicated in **table 1**: while the letter is the preferred channel at an age level of 60 and above, social network channels are highly demanded (34%) by the age group below 40 while E-Mails are most favoured by the middle age group (40-60 years). It is interesting that firstly every age group has different preferences and secondly that differences even emerged among the online media channels.

Channel	Age <40 years	Age 40 – 60 years	Age >60 years
Letter	30 %	49 %	55 %
E-Mail	32 %	48 %	45 %
Social network	34 %	3 %	4 %

Table 1: Significant differences of preferred channels by age groups, Phi-, Cramer V-Test (p<0.05)

Given the fact that social networks have a high value for the youngest age group (<40 years) wineries should be alarmed by the following results: 54% of the respondents did not know whether their preferred winery had a social media presence. 26% were sure that their favourite winery did not have a social media presence and only 20% knew of the presence of their favourite winery in a social network.

How do customers feel being contacted by wineries for activities? In general, information from wineries is appreciated in dependence of the content. 22% welcomed to receive information by wineries, 52% of the participants liked to receive information depending on the kind of information while 26% did not wish to get any information at all. *Age* was found as a significant factor whether customers read the kind of information sent out by wineries: the older a customer the more likely he or she reads information by wineries. Contrarily, younger customers indicated that the content is important whether they start reading information by wineries or not.

When asked how the information affected their *buying behaviour* a total of 48.5% stated that it had a positive effect on their purchasing behaviour (initial purchase, additional purchase, higher frequency of purchase) while 45.6% stated the information had no effect on them (“did not get influenced”, “did not find the right product”). Only 3.2% specified that the given information had a negative influence on their buying behaviour.

These results of the customer side can be compared to the data about the channels *wineries* use to inform their customers. The wineries mainly use the customer letter (96%) followed by direct contact with the customer at the winery (89%) and the appearance at wine fairs (62%). Newsletters (52%) and social networks (41%) were also widely used. Only 5% of the participants stated that they use blogs (own blog or blog of a third-party).

When comparing the results of both studies a few gaps become obvious: Firstly, even though wineries use social media channels, these are not well known by customers. Secondly, a lot of effort and money is still spent on fairs while only very few customers appreciate this channel.

3.3. Preferred versus applied retention activities

Customers generally prefer information regarding wine tastings (52%), rebates (49%) as well as invitation to events (45%). A Phi- and Cramer-V-Test detects some significant results regarding *age*: rebates are mainly appreciated by customers between 40 and 60 years (75%) and above 60 years (77%). Information about offers of wine packages are most liked by people aged 40 to 60 (68%).

Looking at these findings, it seems interesting to compare the answers given by *wineries* when asked which customer retention activities they undertook during their last business year. The figures are presented in **Table 2**. The most performed activity was sending out the *price list* (17%) followed by *invitations to events* and *wine tastings* (both 14%). *Customized customer letters* have been sent out by 12% of the wineries and 11% took part at a fair. Other activities have been *visits of the winery* (10%), *home delivery of wine* (9%), *rebates* (7%), *seminars* (4%) and *wine clubs* (1%). Overall, it can be stated that wine tastings and the invitation to events are activities that wineries often pursue and consumers highly appreciate. Yet, there is a slight mismatch according to the importance of rebates: It is ranked as the second most popular method by customers but is given lower priority by wineries. Contrarily, sending out of the price list is much popular for wineries than for customers.

Customer retention activities of wineries	Percentages
Sending of price list	17 %
Invitation to events	14 %
Wine tastings	14 %
Customer letter	12 %
Invitation to fairs	11 %
Visit of winery	10 %
Home delivery	9 %
Rebates	7 %
Workshops	4 %
Wine club	1 %
Other	2 %

Table 2: Customer retention activities by wineries, n=150

3.4. Customer satisfaction and customer complaints

Another topic the survey looked at was customer satisfaction and the handling of customer complaints by wineries. The measurement of customer satisfaction conducted by most wineries is *situation-based* (49%). Only 3% of the enterprises measure satisfaction on a *half-yearly basis* and 1% *yearly*. A very high number (40%) of wineries does not measure customer satisfaction at all. 7% did not answer this question. In a second step wineries were asked on how they handle unsatisfied customers. Most wineries (92%) indicated to resolve conflicts through personal conversation. 77% offered their customers compensation such as rebates, and 61% stated that they sent out an apology letter.

In terms of controlling customer churn nearly half of the wineries (46%) did not analyze which customers did not buy again on a yearly basis. This is confirmed by the answers given by the wineries regarding the analysis of the reasons why regular customers did not buy again: only 6% of the wineries “*always*” analyze the reasons for customer loss and 12% do it “*in a regular period*”. Most wineries (51%) check for the reasons only “*sometimes*” and almost a third “*do not check at all*”.

Furthermore, only 25% of the wineries “*always*” see customer complaints as a chance for improvement. 34% “*frequently*” do so and 14% “*sometimes*” do, while the remaining 21% said it “*depends*” on the circumstances.

4. THEORETICAL AND PRACTICAL IMPLICATIONS

Wineries are dependent on their customers as they are a part of their immaterial capital. But what is a customer worth to a winery and how can relationships be quantified? These are current topics in the field of marketing research. Customer proximity, customer satisfaction and customer retention are discussed predictors of the profitability of a customer relationship. They should be important topics for wineries as well, especially in times that are characterized by customer migration and homogenization of products and services (Krafft and Goetz 2011).

Regarding customer retention, the conducted research has shown that wineries already put a lot of effort into those activities. Still, their implementation might be improvable. Wineries carry out very limited documentation on the activities undertaken so their activities cannot be compared regarding effectiveness and profitability. An evaluation would help to prioritize activities that are worthwhile versus the ones which just cost money. Furthermore, wineries could ask their customers which activities they appreciate to optimize and to adapt the activities to their wishes. The customer study shows that there are even differences between the age groups regarding the preferences of different activities. This is an additional point that the wineries should take care of: it is worthwhile to adapt to the personal preferences of the different customer groups. It would be also effective if wineries had a specific person assigned to take care of customer retention programs, but this is rarely the case. Another aspect is how much effort is put into the different customer groups, e.g. new customers, existing customers and former customers. While wineries already conduct several customer retention activities for existing customers only little is done in terms of customer win-back activities (as 38% of the wineries do not conduct any activities at all). This approach should be reconsidered as acquisition of new customers is more costly than the acquisition of former customers or regular customer care. To avoid the migration of customers, wineries should measure their satisfaction. The study shows that most of the wineries do not measure customer satisfaction regularly.

Therefore, it is not possible for them to prevent customer migration. So, we propose that wineries should improve the documentation and evaluation of the effectiveness of customer retention activities and optimize them in regard to customer demand. Additionally, customer satisfaction should be measured at least once a year to get feedback and to take appropriate retention activities.

The findings of the study concerning communication channels show that whilst social media channels are highly recommended and used by wineries, these are not very well known by their customers. This is a problem since wineries only have limited resources which should be used wisely. Additionally, this channel will become more important in future as it is already preferred by younger customers. Furthermore, the results show that customers of different age groups differ in their preferences regarding information. So it would be advisable to consider the needs and preferences of these different age groups regarding preferred communication channel and content.

To sum up, wineries need to invest more time for documentation and analysis of their relationship marketing activities, and should spend time to understand the needs and wishes of their customers. This will lead to more efficient relationship marketing.

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The Challenge of Cohesive Brand Positioning: Convergence of Innovative, Modern, Traditional, and/or Classic

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- *Purpose: The purpose of this paper is to describe how managers in the wine industry perceive their strategic brand positioning choice options and integrate them into a cohesive brand story.*
 - *Design/methodology: A qualitative study of 166 individuals, including 99 in-depth interviews, from 153 wine industry firms from nine regions around the world was conducted over the course of four years to determine marketing and supply chain strategies. Data consisted of depth interviews, organization documentation, website information, operation observations and photographs. The data were analyzed using accepted practices from grounded theory and ethnography.*
 - *Findings: Data interpretation revealed four overarching strategic brand positioning options (innovative, modern, traditional, and classical), each of which could be communicated via one or more of 16 controllable variables or characteristics (5 marketing processes, 2 supply chain management processes, winery operations processes, 5 product characteristics and 3 organizational characteristics). Beyond this, managers experience tension as they attempt to make choices related to these four options, some of which may seem diametrically opposed to each other.*
 - *Practical implications: This study offers a means for wine brands to diagnose their positioning efforts and better determine the cohesiveness of their brand positioning efforts and stories.*

Key words: brand positioning, brand story, grounded theory

1. INTRODUCTION

Brand positioning is a well-researched core strategic task for marketing managers (Das et al., 2009) that is as challenging as ever within the wine industry. With over capacity, global competition, cost containment challenges, and changing consumer desires, winery marketing managers must make potentially risky strategic branding choices. It is clear that brand positioning is an ongoing strategic challenge requiring the careful integration of various media forms especially as brands grow (e.g., Seaford, 2012).

The original research objective was to answer the question: how do wine managers approach their customer and competitor environments as they attempt to grow their businesses? This empirical paper reports key findings from a four year immersion in global wine regions designed to explore contemporary wine marketing and supply chain practices as winery managers try to survive and grow their businesses. Within theory-building, inductive aspects of the project, we discovered strategic practices that were sometimes comprehensive conscious choices while at other times were ad hoc and lacking cohesion. Thus the original research question evolved into: how do winery managers develop and leverage competencies in their brand positioning? Specifically, managers were struggling with positioning their wine brands, product lines, wineries, and even regions in terms of being innovative, modern, traditional and/or classic. These positioning options, the challenges managers face, and the 16 ways discovered in which they attempt to position were not sought *a priori* in this project. The challenge of creating a cohesive positioning message through these four specific options emerged through the interpretive process across multiple sources of data. Thus, although the next sections describe relevant literature on themes that emerged, they were explored only after they emerged in the theoretical framework constructed from the field data.

1.1 Strategic Choices in Brand Positioning

Brand positioning involves making strategic choices about not only what to emphasize in market messaging but also in what to actually do. In today's environment, what a firm does reflects on what a brand means and can be discovered and disseminated widely and rapidly through social media. Strategic decision-making is about making well thought-out choices (Porter, 1991) and when done effectively can be viewed as a dynamic capability serving as a differentiating resource (Eisenhardt and Martin, 2000). Managing the choice process is the challenge, and there are numerous approaches from which to choose. As brands expand their reach to foreign markets, they must choose for instance the extent to which they emphasize their foreign as well as adapted localized dimensions in brand positioning (Eisingerich and Rubera, 2010; Kipnis et al., 2012). The country of origin for wine brands does have an effect on consumers' perceptions of quality, price and preferences and as such is an important characteristic for brand positioning (Guidry et al. 2009), but sometimes this country of origin effect constrains rather than helps. Beyond the obvious quality-related indicators connected to a brand that all wines try to include in their positioning, creating meaningful consumer experiences has become a powerful means of contributing to a brand's position (Addis et al, 2008). Finally, key aspects of wine brand positioning are authenticity and credibility which help consumers match brands with their desires by believing in and trusting them (Beverland, 2005; Mileti et al, 2013; Napoli et al, 2012). In this sense, being authentic has in part to do with keeping with traditions, but is largely a subjective assessment of being true to one's claimed identity.

1.2 Innovation and Brands

What does it mean to position one's brand on being innovative? Innovations can occur in products, services, and ideas and are perceived as innovative when they are new to the adopter and enhance the functional or hedonic benefits one receives, i.e., help create greater customer value (Flint, 2006). What is seen as innovative is in the eyes of the beholder and lies within context such as an industry, product class, or consumer group, and is dynamic since what customers value changes. Innovation is often critical to brand survival, and can be mapped along two dimensions of incremental/radical and market driving/market driven and assessed on how well innovation efforts fit with brand positioning (Beverland et al. 2010). Innovation can enhance brand personality if managed correctly (Bhat and Bowonder, 2001). Yet, incoherent or brand inconsistent practices can result in consumer brand confusion. Although brand confusion is often examined through a legal lens where one brand infringes upon another's identity, sometimes brand confusion emerges unintentionally by the efforts of the brand's management team. Wine branding has become so complex that the potential for confusion is high.

2. METHOD

This empirical research is guided by ethnographic and grounded theory traditions (Arnould and Wallendorf, 1994; Glaser 1992; Strauss 1997) as part of a large, multi-year, multi-region project examining contemporary marketing and business practices in the wine industry. Data collection methods included observation, meetings with 166 organizational representatives, formal in-depth interviews with 99 senior managers and over 1100 documents and artifacts from wineries. Formal interviews ranged between one and two hours and were primarily conducted in English. The regions include the United States (Napa/Sonoma – 19 interviews, Oregon/Washington – 18 interviews), Australia (Barossa Valley – 11 interviews, Margaret River – 17 interviews), New Zealand (Marlborough – 11 interviews), and Italy (Veneto – 12 interviews, Tuscany – 11 interviews). Managers from these well-known wine regions were experienced, articulate and willing participants, representing young and established, as well as large and small wineries. Appendix A provides the participant characteristics. Interpretations followed classic ground-up, open coding of verbatim interview transcripts, marketing collateral (brochures, presentations, websites, business cards), and winery artifacts and observations (documented through photographs) in line with grounded theory which seeks to identify how actors approach problems in their social environments and create meaning through their social interactions (Glaser, 1992; Strauss, 1987). Open codes were collapsed into concepts and categories that were integrated into a theoretical framework. The emergent framework (Figure 1) depicts key concepts that emerged unprompted through these interpretive processes. The insights provided in the findings section reflect interpretations of all of our data and are far more than simply what managers 'told' us. Specifically, interpretations reflect many hours of contemplation of what seemed to be 'going on,' stories managers were attempting to convey to us, comparison of multiple data forms, and reconciliation among the three researchers of alternative possible interpretations.

3. FINDINGS

3.1 Innovative, Modern, Traditional, and Classic

Interpretations of the data reveal that winery managers are under constant competitive pressure, regardless of the size of the winery or the region. Competition is stiff internationally for those attempting to grow their market share in foreign regions as well as locally for those merely trying

to survive. This constant competitive pressure challenges brands to position themselves clearly and to find a niche within which to operate. Participants in this study revealed their positioning desires through comments about their ‘story,’ what their winery and labels ‘stood for’ in the marketplace, or what they were ‘trying to be known for.’ Being known as innovative or traditional emerged as common positioning options. This became apparent when comparing wineries in Italian regions with those of New Zealand. This in itself initially was not unique or interesting given that culturally New Zealanders like to be known for experimenting and trying new things, and Italy is proud to be home to some of the oldest wine regions known. What emerged through deeper interpretations was that many Italian managers were also focused on innovation; in fact wineries everywhere data were collected discussed innovations that they were pursuing in various forms, primarily because they felt they needed to as a way of responding to competition. Additionally, managers at many wineries globally were also discussing the importance of tradition. Furthermore, in many cases they were the same managers discussing positioning efforts on both. Then, as interpretations of participant interviews were compared with interpretations of content expressed on websites, marketing collateral, architectural style of wineries and tasting rooms, and even business cards (e.g., font style), it became apparent that these managers were wrestling with a form of tension, trying to decide amongst four options on how best to position their labels, their product lines, their wineries, and in some cases, their region. These four options were being innovative, modern, traditional and classic (Figure 1).

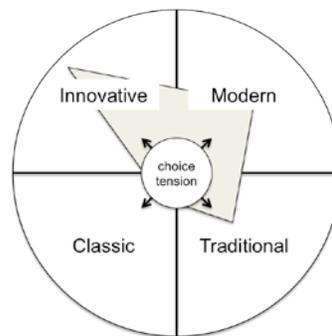


Fig. 1: Options for Brand Positioning

In some cases managers seemed to have a clear brand positioning on one of the four. Often though, we found combinations of two or more of the four positioning options, some appearing rather contradictory. Thus, in some cases messages created coherent stories and clear positioning while often inconsistencies led to incoherent positioning.

Looking only at innovation and tradition, in some cases, managers recognized the delicate process of selecting aspects on which they could or even should be innovative (e.g., wine, packaging, aging process, growing processes, closures, location) while at the same time, retaining those that should remain traditional. Sometimes this debate escalated to managers at multiple wineries within the same wine region, where opinions strongly varied on what were important aspects of ‘tradition’ for the region’s brand positioning. Additionally, being traditional meant something different to participants than being ‘classic,’ and being innovative meant something different to them than being ‘modern.’ This insight led to the development of the four-quadrant figure representing positioning choices from which managers seem to intentionally or unintentionally select, with many selecting various combinations of two or more of these four.

3.1.1 *What do innovative and modern mean?*

The following participant passage may best articulate a view of innovation and its importance to business continuity.

“Innovation for us is one of the most important things to survive. One is in the production, studying new opportunities using the past, methods to reinterpret in different ways the old product, innovation is also service to customers and suppliers, new production methods or new services to the customers. We are able to reach the final customers by big investments in sales and distribution...” [Paulo]

Evidence of innovation was found in products (e.g., the wine itself, packaging/bottles, labels, closure mechanisms), processes (e.g., marketing, winery operations, supply/demand chain management, CRM tools), and organizations (organizational structure, employee profiles). Examples such as adopting and experimenting with wine in a box, new corks or closures, using QR codes on the labels, and embracing social media. As one participant claimed, they were “...adapting wines to meet the needs of local markets globally” [Luciano], representing a market-driven form of product innovation.

“What we’re going into now is a lot more packaging innovation. So a lot more focus about the occasion and also the visual cues that consumers will see.” [Aaron]

Being innovative meant something different from being ‘modern.’ Where innovations were changes that were new and improved ways of benefiting customers and as such aiding in differentiation, ‘modern’ to study participants meant contemporary in terms of style. A modern style is reflected in architectural design of tasting rooms, bottle labels, websites, advertisement imagery and even the font on business cards. Equipment and processes can be modern and not necessarily innovations. It is also reflected in the comments managers made about their brand stories or their processes. For example, one Italian participant emphasized that he was driving his webdesigner to make the site to “have a very modern look at feel.” [Marco]. One California owner emphasized the modernity of his attitude, wine cellar and visitor center [Chris]. The public relations director of a large Italian conglomerate winery described the modern look and feel of a spritz product they launched and all of the contemporary marketing that went with it [Luciano]. Finally, a participant at one of the fastest growing wineries in New Zealand emphasized it’s state of the art processes, brands and marketing efforts [Paul].

3.1.2 *What do traditional and classic mean?*

Often contrasted with being innovative was being traditional. Although traditional can mean how the wine tastes and staying true to a varietal, it also referred to traditional wine making processes, grape growing processes, ways of doing business, and the look of bottles, labels and closures; it means familiar. It is not surprising to find managers at wineries in the Old World concerned about being traditional or making traditional wines, but this study revealed managers in other regions also speaking about tradition even if using different words. For example, participants would speak in terms that reflect “this is how we do things here in this region” or “ever since the beginning [which may be the 1970s in California, New Zealand or Australia] we [meaning wineries in the region] have respected the land and what it could best produce and followed certain expected ways.”

Being 'classic' was different from being traditional. Classic implied a certain quality level as well, something beyond traditional. Being classic is critical for differentiation if ones wines represent the original and highest quality producing regions such as within Tuscany for Chianti Classico or Montalcino for Brunello. That said, even wineries elsewhere drew on the notion of classic for positioning. For example, one Australian participant explained "we started to use it because this is the classic French Burgundy bottle so we wanted to use it for Chardonnay and Pinot Noir." Yet, he also described the "classic American business view" implying that classic meant the standard to which others would compare, be it a wine or a way of doing business {Donna and Alan}. "We have some varieties which are siblings which originally started out as a classic dry white, it's what this area is known for..." [Doug]. Even the way one produces and sells wine can be classical as one manager explained "all of my training is French classical training" [Randy]. Yet, one Australian participant explained that "people are going away from using the term classic.." further emphasizing the dynamic nature of brand positioning and the importance placed on certain forms of positioning.

3.2 Trying to be cohesive

The challenge winery managers are facing lies in deciding on what attributes or processes they should innovate, while simultaneously deciding which ones to retain as traditional, which characteristics if any constitute being classic and which ones if any should be modern. Hundreds of examples from the data reveal this challenge managers were facing.

One owner of a winery well known for being unique in the region explained that "innovation is establishing and growing traditions...looking back at the past and getting the best of what happened" [Antonio]. This theme of resurrecting old traditions as a means of being innovative appeared numerous times in the data, such as "...it's an innovation recovering the ancient wine making method..." [Cesare]. Another participant described how they were creating "classic" wines, while also wanting to emphasize the "traditions" of its 100 years of family ownership and yet encouraging website designers to create a "very modern look and feel" [Marco]. Others would develop innovative processes, yet market wines as if they were local, small, boutique and traditional. One website positioned its wines as traditional wine innovations whose bottles looked very modern.

One participant stated that brands "...need to have a personality, have a story...be really authentic, true to the place...[we're] trying to be modern traditionalists...and you can't communicate it if you don't know who you are" [Linda]. Another participant also claimed "...it comes down to the brand story...the perception that differentiates...There is a clear focus in New Zealand on sustainability, innovations in carbon footprint and so forth...in ownership our innovation is that we are the only Maori-owned winery" [Ted]. In the New World, it could be that a "tradition is to grow with the market...to adapt and innovate" [Dan]. According to managers at New World wineries, tradition seems to mean the norms of behavior developed by those who have been in the region or making that varietal the longest, the "...normal way of doing things" [Vick]. Traditional and also modern for a manager in Australia was to explore various ways to create wines that best 'interpret' the soil while making 'classic' high-end wines [Roger]. The data representing the act of wrestling with combinations of these four positioning options is extensive. Participants often used phrases like "new traditionalists" or "integrating

innovation and tradition.” Even industry writers do it when they claim for example that a Brunello di Montalcino is both “modern and classic” (Larner, 2013). Although tools such as multidimensional scaling have been useful for positioning on multiple attributes since the 1970s (Doyle, 1975), positioning by combining such supposedly opposing concepts as these creates a new challenge currently underexplored. The call is still the same though, to create a brand that is coherent in totality and offers a unique blend of attributes (King, 1973).

Interpretations revealed that participants were relying on combinations of 16 different ways in which they were conveying the position of their brands, wineries and regions. Table 1 lists them merely to highlight that managerial tension felt while trying to position on one or a combination of the four options was manifested through decision making about each of these 16 variables.

General Area of Focus	Specific Forms
5 product characteristics	wine itself, bottle, label, closer, package
5 marketing processes	digital media, printed collateral, interpersonal interactions, events, architectural design
Winery operations	e.g., vineyard management, fermentation, aging,..
2 supply chain management processes	network structure, relationship management
3 organizational characteristics	location, organizational structure, employee skill

Table 1. Variables Discovered that Communicate Brand Position

4. CONCLUSIONS AND IMPLICATIONS

4.1 Literature and theory

This study contributes to the brand positioning literature by describing the challenging realities of positioning a complex emotional product category with a great deal of history immersed within an intense competitive environment along multiple, sometimes opposing, characteristics. The contribution lies not merely in identifying the choice variables but in the tension management processes of individual managers as they wrestle within their own minds as well as with industry colleagues about the best combinations to create a strategic differential advantage. The standard battle between wine ‘innovators’ of the New World and ‘traditionalists’ of the Old World that is well documented (e.g., Bartlett, 2003) is not an accurate picture. What is new, is how complex and blurred brand positioning has become as a great deal of innovation emerges from young and old, and large and small wineries in both the Old World and New World regions and as what it means to be traditional changes throughout these regions.

4.2 Practice

Managers whose decisions affect brand positioning ought to examine the numerous ways in which they currently emphasize concepts of innovation, modernity, tradition and classicalness. Figure one can be used as a diagnostic tool if the extent to which market communication emphasizes each of the four is mapped onto it, similar to the hypothetical trapezoid presented in the figure. Going further, the extent to which each of the four options is being communicated to the market might be determined by examining the decisions and communications about each of the 16 variables identified in Table 1. Future research should delve more deeply into these 16 and others and explore the relationships between various combinations of them and the cohesiveness of the brand positions that result.

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**APPENDIX
PARTICIPANT PSEUDONYMS AND INFORMATION**

Pseudonym	Descriptors
United States	California, Oregon, Washington
Andy	Owner and Winemaker for small Sonoma winery specializing in a single varietal
Ben and Jerry	Director of Winegrowing for large Sonoma winery; big focus on sustainable practices in upstream end of supply chain Winegrowing Technician for large Sonoma winery; responsible for working directly with suppliers on sustainability requirements
Bob and Barbara	Co-owners; winemaker/grower and marketer/tasting room manager; married; owned the vineyard for 20 yrs, making wine for 16; he is a former attorney, she a former bank manager and city planner
Chris	General Manager of small Sonoma winery with goal of serving customers through the cellar door only; background in sales with large wine company
Dan	Marketing manager; moved to wine region 6 years prior; first position was with non-profit association representing 370 wineries; now focused on Internet marketing strategies at current boutique winery for 4.5 years
Jeff	Customer service (tour guide) for a very large winery; a recent college graduate who had interned at the winery while in his undergraduate program; knows the history of the winery well
Ken	Winemaker and General Manager of very high end winery; has significant branding/marketing experience at another high-end winery owned by a major corporation
Kim	General Manager of an importer of wine to the US (vertical integration from a wine company); tenacity got her into the industry with another importer
Linda	General Manager and Director of Marketing; she was in conflict resolution for International non-profits; significant experience as senior marketing officer at various wineries
Mike	Senior Director, Operations Planning of one of the largest wineries in the world; has spent 23 years at the firm, 17 of which were in sales; now deals with sales and operations planning, production efficiency issues
Paul	Operations manager at a smaller but high-end winery that has been acquired by a number of larger corporations over the years; he is also a grower
Shawn	Apprentice winemaker and marketing; small winery with ten employees; she worked at two wineries prior to this job where she has worked for nine years
Scott	Marketing coordinator; grew up in wine business; spent time after college in restaurant and bar management; spent a number of years putting together promotions and events for wineries
Sid and Nancy	Co-owner and Marketing Manager for small Napa winery; prior marketing experience and good with customers; started a second company with friends Co-owner and winemaker for small Napa winery; long family history in CA winegrowing and winemaking
Susan	VP/General Manager of unique winery known for blending passions for wine and art; has worked for winery for 8 yrs; prior to this spent 11 yrs as director of operations for the organization that does marketing and sales for this winery
Teresa and Paul	Sales Director for midsize Napa winery; trained in sales and marketing; feels point of difference is location of tasting room Winemaker for midsize Napa winery; brought in to focus the wine offerings but feels they have actually gone in opposite direction
Albert	Co-owner and Winemaker for a small winery in the Willamette Valley; had been a farmer and managed vineyards when he decided to also make wine
Alex	Vineyard Manager for a mid-size winery in the Willamette Valley; has several years of framing experience and is from the local area
Barry	Owner and winemaker for a small winery in Walla Walla; wanted the lifestyle and to be his own boss
Betty	Operations Manager for a small winery in the Willamette Valley; winery started as a hobby farm; she is working to officially build the brand and grow sales

Cary	Owner and winemaker for a large winery in the Columbia Valley; background in sales and marketing; saw a business opportunity and started business with a definite plan
Carol	Marketing and Sustainability Manager for a large, publically held winery in the Willamette Valley; works a great deal on sustainability issues and how these can be communicated to customers
Carrie	Marketing Manager for an older, mid-size winery in the Willamette Valley; brings marketing experience in the industry from other countries
Darren	Owner, Winemaker and Vineyard Manager for a small winery in the Willamette Valley; had grown up on a farm and lived in the area and thought this would be a good venture
Derek	Winemaker for an older, mid-size winery in the Willamette Valley; very concerned about sustainability and trying new things/being the first/leading the region
Joey	Owner and winemaker for a small winery in Walla Walla; started the venture after business school and travel to Italy; has the support of other family businesses in the area (real estate) to help with funding
Marcus	President of a contract vineyard management company in the Willamette Valley; has numerous years experience in farming and the wine industry; specialize in managing sustainable vineyards
Peter	Owner and Winemaker for a small winery in Southern Oregon; had made wine in his basement when he was in business; considers himself to be an excellent blender and believes this is key to making good wine
Rick	Operations Manager for a custom winemaking facility in the Willamette Valley; had no prior industry experience but interested in operations and wine and got in through a friend
Robin	Tasting Room Manager for a large winery in Walla Walla owned by a business in Seattle; hires people based on personality and interaction with people, not their knowledge of the industry/product
Sam	Director of Marketing for a large winery in the Willamette Valley; works on marketing the brand; takes on side projects to build the brand and not just around wine
Steve and Susan	Owners and winemaker of a new, small winery in the Willamette Valley; both have business backgrounds and wanted to start their own business; have made decisions based on what they like in wine
Tristan	Operations Manager for a mid-size winery in the Willamette Valley; brings industry experience from different countries
Australia	Western Australia, South Australia
Brent	General Manager for the only winery positioned with a view of the ocean in Margaret River; he was hired by the owners due to his background in sales and marketing and has since taken over management of all operations
Brandon	Senior Winemaker and owner of a contract winery currently serving more than 6 Margaret River wineries; he has over 20 years of winemaking and vineyard management experience with well-known wineries in the Napa and Western Australia; he has degrees in agricultural science and viticulture and enology (UC, Davis)
David	Owner of an organic vineyard and winery in the Swan Valley; he does all of the viticulture and winemaking in addition to managing the construction of all facilities (e.g., barrel room, cellar door) on the property; David chose to follow the organic model due to a lifelong sustainability philosophy
Donna and Alan	Owners of a small, premium, well-respected winery in Margaret River; Alan joined as the winemaker following completion of his oenology degree and when they made the decision to purchase the business, Donna became involved with the sales and marketing; they have a great deal of knowledge of the evolution of the industry in Margaret River and hope their children continue the business
Donald	Former owner and manager of a large Chinese owned winery in Margaret River; Donald built the contemporary winery 10 years ago utilizing state of the art equipment; he views producing wine from a business point of view, and the facility is clearly geared toward mass production of wine
Doug	Owner of one of the first wineries (and now one of the largest) in Margaret River; was

	mentored by a well-known winemaker after he was told that the property he had purchased would be ideal for growing grapes; due to his philosophy of 'wine, food and art', Doug has played a large role in making Margaret River a wine and food destination in Western Australia
Gerard	Owner, Viticulturist and Winemaker for a small, new winery in Margaret River; a former geologist, Gerard and his business partner started this to provide a lifestyle and are less concerned about making a profit; he views wine as an expression of himself, the business and the property
Greg	Co-owner of wine bar and bistro in the town of Margaret River; Greg has many years experience in the wine and hospitality industries and also owns a vineyard and winery in the area; he approaches business with the philosophy that he wants to influence not only the sale but also consumption experience with the product; the wine bar is the only one of its kind that lists/stocks wine from every area winery
Jack and Steve	Owner and chef of an Italian themed restaurant in an upper class neighborhood in Perth; he admittedly does not know much about wine but trusts his current sommelier to make all wine decisions to accent and accompany his menus (primarily Australian and European wine) Steve has been the sommelier at Jack's restaurant since shortly after it opened; he learned about wine growing up in Europe; he hopes to move to Melbourne where the restaurant/wine culture is more advanced than Perth
Karl	Karl is a married, practicing attorney in his 40s that consumes wine 1-3 times per week, primarily as an accompaniment to meals
Mark	Owner and manager of specialty bottle shop in Perth; the bottle shop is the most well-known in the city; he started in the wine/alcohol industry when his family came from Italy nearly 30 years ago; he is passionate about wine and educating people about wine and does this through events held in the cellar of the bottle shop; he has an extensive collection of wines from around the world, primarily from Australia and Europe
Max	Manager for a small organic vineyard and winery in Margaret River; he went to work for his friend that owns the vineyard due to their synergistic philosophy towards sustainability; they are not interested in having a cellar door and selling a great deal of wine but are more interested in being able to follow their livelihood
Randy	Co-owner and chef of the first wine bar to open in Perth; he and his business partner also have a bistro in Margaret River; he is originally from Australia and classically trained in French cooking; he trusts his wine manager and sommeliers to choose all wines for their extensive wine list (primarily Australian and European)
Roger	Technical Director for a family-owned wine group that owns 4 wineries in Western and South Australia; Roger has a chemical engineering degree and a Masters in Food Science and Enology (UC, Davis), spent time in France, and oversees the winemaking operations of all of the wineries
Sam	Co-director of a group of retail outlets that sell rebranded "unbranded" wine purchased from Australia wineries; the business is modeled after a similar business in Melbourne; he and his wife (co-director) did not have any experience in the wine industry before starting the business
Wade	Wade is the Winemaker for a mid-sized winery, known primarily for their restaurant and location, in Swan Valley; he is educated in oenology and viticulture and spent time in France and California before returning to Perth; Wade would like to do experiment more with the wine, but the owners just want basic wine to support the restaurant and event business
Wayne	Wayne is the Chief Executive of a non-asset based wine business; he developed the business based on a desire to sell wine (bypassing the romantic urge to have a vineyard and winery) while working for himself
Aaron	National Supply Manager for the largest brand of a large, public brand holding company; brought in from a similar company due to his supply management experience
Allie	CEO/GM of older family producer; brought in for financial experience and 'outside' views but no background in industry

Art	Sales and Export Director for a small, private, relatively new winery that focuses on regional varietals only; no formal business education but background in hospitality
Cameron	Manager of Sustainable Wine Programs with large, older family producer; an 'internal consultant' that has created and implemented programs from the ground up due to advanced degree research (no prior background in industry)
Clementine	Marketing Manager for government association responsible for marketing, research and tourism; background and formal training in industry (family growers)
Garth	Owner of small, family estate producer; no prior background in industry – wanted to own a vineyard; focuses on premium wines only, no individual cellar door
Jonathan	Owner of small, family estate producer (purchased recently); prior background as an entrepreneur with desire to own a vineyard
Maddie	Operations Manager for a cellar door for several wine producers; background in the industry (family of growers/producers)
Matthew	Executive Chef of high end restaurant that specializes in local food; menus built nightly around wines
Sebastian	CEO of (regional) governmental association responsible for marketing and research; background in industry through family (growers) and various positions with producers
Stefan	Manager of Business Systems and Sustainability for large, public producer; brought in for IT experience and has pushed sustainability based on personal values
New Zealand	Marlborough
Adam	Wine maker for higher end winery; responsible for managing supply and distribution relationships as well; key manager designing and coordinating minimum carbon foot throughout the supply chain working with major U.K. retailer
Ann	Marketing director for small winery; decade of experience in marketing for large, Australian winery; formal brand management training
Bob	Operations and marketing manager at family owned winery in Canterbury Region; returned to help add business/marketing discipline and run operations several years prior to the interview; helps sets strategy for organization
Cindy	Founder, owner, chief chef at high end restaurant in Christchurch; also runs a sommelier school and other retail and product ventures
Gina	Sommelier at Cindy's restaurant; formerly trained in wine selection and food pairings; responsible for wine recommendations for patrons
Jeff	Part owner in largest, most successful wine retailer in Christchurch; works to create customer-oriented atmosphere and very knowledgeable about wines
Jim	Partner in multi-brand wine company responsible for strategy, positioning, partnerships and operations
Mike	Austrian sommelier for a high-end restaurant in Christchurch; very knowledgeable about menu, wide variety of wines, and customers' preferences
Paul	Senior operations manager at large and one of the fastest growing winery in the region; responsible for setting up state of the art operations, acquiring state of the equipment
Ted	Chief Executive Officer for boutique winery; significant experience in Australian wine industry; supply chain specifically designed to leverage and support the indigenous (Maori) ownership of this winery
Vick	Chief Financial Officer of wine holding firm managing four major brands; has a long history in the wine industry both as manager and producer/owner; highly involved in strategic decision making for firm
Italy	Veneto, Tuscany
Alberto	Owner of a high end restaurant in Verona; focus on local dishes with mostly local wines on the list constructed based on customer requests
Antonio	Owner (2 nd generation) for a small winery in Veneto; educated in the UK; strives to be different than the large companies and feels consumers should taste the wine
Cesare, Barbara, Francesca, Marco	Owner (7 th generation), export sales and hospitality for a large winery in Veneto (#17 in Italy); focus is on tradition and marketing the region and its history

	Various sales and support staff for Cesare
Dante	Sales Manager and Winemaker (3 rd generation) for a small winery in Veneto; focus on making a regional (and relatively unknown) varietal
Fabio	Owner (3 rd generation) and winemaker for a small winery in Tuscany; has increased exports greatly and combined selling wine with in-home paired course dinners in the US
Francesco and Francesca	Sales Manager and Marketing Operations for a mid-size winery in Veneto (#65 in Italy); neither is part of the family dating back to the 1800s who had the attitude that marketing was not necessary for sales
Giorgio and Gianni	CEO and Sales and Marketing Manager for a large winery in Tuscany (#14 in Italy); they are not part of the family and are more concerned with the management of the business while the family is concerned with the product
Ilenia	Owner (3 rd generation) for a small winery in Veneto; associated with an agriturismo; more interested in the way New World wineries are run rather than the tradition of typical Italian wineries
Luciano	PR director for large winery in Veneto (#10 in Italy); part of the 7 th generation family through marriage; company has grown the last several years through acquisitions
Marco	Owner (4 th generation) of a small winery in Veneto; he manages the business and marketing aspects while his brother manages production
Paulo and Ivan	Consultant and Viticulture Manager for a large brand co-operative in Veneto (#1 in Italy); the company has grown quite a bit in the last few years
Roberto	CEO of a mid-sized brand co-operative in Veneto; have only recently begun to strategically sell wine and are now investing in new products and product lines
Alfredo	Owner/Director of small family winery (second generation) in Tuscany; differentiates themselves (from larger producers and traditional producers) with the style of their wine and has broad vision for the region in addition to his business
Carlo	Oenologist for a brand owned by a large brand co-operative (#1 in Italy); they are researching precision agriculture as a pilot for the co-operative
Claudio	Director of Marketing for a medium sized, centuries old winery in Tuscany that has changed ownership from the family to publically held spirits companies to the family again
Cristina and Cristian	Promotions and Communications Manager and Agronomist for a medium sized, centuries old winery in Tuscany; experimenting with grape clones
Daniele	Managing Director with siblings of a family winery in Tuscany; the property was an old monastery and has been in the family for over 150 years
Dominica	Managing Director of a medium sized family winery (second generation) in Tuscany; one part of a larger farming based company
Ernesto	Independent sales representative for several Italian wine brands; sells to restaurants in Florence
Gianni	Director of a local area consortium of wine producers
Jovanni	Owner/Director of small, older family winery in Tuscany; relies on relationships rather than marketing for sales
Luca	Managing Director (with brother) of a medium sized, centuries old family winery in Tuscany; they conduct a great deal of research and experiment with their viticulture
Paola and Laura	Marketing Director and Tourism Director of very large foreign owned family winery in Tuscany; they concentrate on marketing strategy for all markets except US (where there is an import arm of the company for distribution)

Exploring Attributes of Variety Seeking Wine Consumers in the US

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Exploring Attributes of Variety Seeking Wine Consumers in the US

ABSTRACT

Purpose: To investigate the various levels of variety seeking behavior amongst US wine consumers, in order to determine if there are differences in characteristics, values, and their relationship with wine

Design/methodology/approach: A quantitative research study using an online survey of 401 US wine consumers. The Swartz Value Inventory and VARSEEK scale were used as part of the measurement instruments. SPSS software was used to analyze data, including descriptive statistics, ANOVAs and discriminate analysis.

Findings: Results illustrate strong differences between High Variety Seeking Consumers compared to Moderate Variety Seeking and Variety Avoiders, in that High Variety Seekers were younger, held different values, paid more for wine, purchased wine in more locations, preferred more varietals, and considered themselves to have more wine knowledge and involvement than the other two segments.

Practical implications: The results suggest several implication for wine marketers targeting High Variety Seeking Consumers including wine brands that offer a wider array of varietals, wines from different countries, various price tiers, and include creative packaging and sustainable messages.

KEY WORDS: Wine, consumer behavior, variety-seeking, consumer segmentation

The concept of variety seeking behavior has been developed in several areas since the 1950's. Exploratory behavior has been a major topic of research in the psychology literature as Berlyne (1960) suggested that "novelty", "unexpectedness", "change", and "complexity" are pursued because they are inherently satisfying. The concept quickly made its way into the marketing research literature, and is of special interest to product categories in which there are a large number of choices for consumers, such as music labels, perfume and wine.

With estimates of more than 10,000 wine brands available in US retail establishments (Mondavi, 2008), wine is often referred to as a very confusing product that creates a segment of consumers that are "overwhelmed" by the amount of choices (Constellation, 2008). At the same time, there are a group of wine consumers that appear to relish the wide variety of styles, varietals, and national origins of wine. These consumers are often referred to as "variety seeking."

Though some research has occurred in different countries on the construct of variety seeking consumers (Goldsmith, d'Hauteville and Flynn, 1998; Goldsmith and Hofacker, 1991; Orth & Bourrain, 2005), only a few studies have examined the US wine consumer (Dodd et al.,1996). Therefore the purpose of this paper is to investigate the various levels of variety seeking behavior amongst US wine consumers, in order to determine if there are differences in characteristics, values, and their relationship with wine. This resulting information will be useful

in assisting wine marketers in developing more focused promotions, as well as to provide direction for future wine business research.

1. REVIEW OF THE LITERATURE

1.1 Definitions and Measures of Variety Seeking Behavior

Defining and measuring variety-seeking behavior amongst consumers has resulted in several definitions and useful scales to address the issue. One of the most comprehensive definitions of variety seeking behavior was described by Hirschman (1980) as an internal drive or motivating force that motivates the individual to seek out novel information. However, individuals often vary their choices among known stimuli. For example, they may vary their purchases of previously sampled brands. She referred to this phenomenon as “variety seeking” since the stimuli are not completely new and new information is not acquired.

Zuckerman developed several instruments for measuring the personality trait of sensation seeking (Zuckerman et. al., 1978; Zuckerman, 1994). It consisted of four subscales that measured thrill and adventure seeking, disinhibition, boredom acceptability, and experience seeking, which represents the seeking of experience through the mind and sense as well as travel (Ferrando and Chico, 2001). In addition, other researchers have used different methods of measurement. For example a higher degree of novelty was shown to increase the GSR (Galvanic Skin Response) of subjects (Berlyne et al, 1963).

Howard and Sheth (1969) and Venkatesan (1973) have asserted that there is an optimal level of stimulation that consumers strive to maintain. A departure from that optimality can lead the consumer to behave in such a way as to reestablish the stimulus level to an intermediate range (Berlyne, 1960). One method to measure this Optimal Stimulation Level (OSL) was Zuckerman’s (1964) Sensation Seeking Scale.

Another instrument used to measure OSL is the Change Seeker Index (CSI), which gauged the need for variation in an individual’s stimulus input (Garlington and Shimota, 1964). At 95 items, it has been observed that that it is too long for practical use so Steenkamp and Baumgartner (1995) reduced it to a 7-item scale without losing any nomological validity.

1.2 Characteristics of High Variety Seeking Consumers

Consumers with high levels of variety seeking behavior have a tendency to exhibit certain characteristics. Kish and Donnenworth (1972) characterized a high sensation seeker (HSS) who possesses a stronger than average need to seek out activities which are novel, complex, or more intense. Mittelstaedt et. al. (1972) found that high sensation seekers tend to push through the evaluation phase and move right in to the actual trial of a new product. HSS individuals also have a shorter decision time than those with a low OSL.

In the consumer behavior area, the literature suggests that individuals with high OSL will be more likely to explore new stimuli due to the higher need for environmental stimulation (Raju, 1980). This would include stimulus characteristics such as novelty and complexity as well as information search behavior (Raju and Venkatesan, 1980). On the other hand, those with a low

OSL will feel more comfortable with familiar stimulation. Raju (1980) also found that consumers with high OSLs are less rigid in their response patterns and more likely to seek change or variety. It was also found that high OSL people tend to be younger, better educated and employed. These linkages of OSL to demographic variables can help to identify target markets. Those with high OSL are more prone to brand switching while lower OSLs tend toward repetitive behavior.

In addition to focusing on variety seeking as an individual characteristic, Van Trijp et. al. (1996) investigated the impact of product category, where consumers may seek variety in one product category but not in another. They found that the product category-level variables such as purchase frequency and purchase history make a greater contribution than the need for variety in determining variety-seeking intensity. This leads to the conclusion that variety-seeking behavior is not expressed to the same extent for all products.

Concerning purchase behavior, Kahn (1995) defined variety seeking to be the tendency of an individual to seek diversity in their choices of services or goods. That individual may seek diversity due to their desire for change or because of satiation with product attributes (McAlister and Pessemier, 1982). Once a consumer has attained an optimal level of an attribute, he is satiated and may choose to consume a different attribute on the next occasion. They also posited that risk takers are more likely to act upon their intrinsic desire to explore unusual and unfamiliar products. Another motivation, put forward by Kahn (1995), is that consumers seek the variety of a portfolio of options as a hedge against future preference uncertainties.

Ratner and Kahn (2002) focused upon hedonic products where the benefits provided are a matter of taste (as opposed to utilitarian products). They found that consumers expect others to evaluate their purchase decision more favorably if they choose variety. Thus, consumers will incorporate more variety if they expect their decision to be subject to public scrutiny than if it was a private decision. Earlier research by Ariely and Levav (2000) demonstrated that the desire to make a positive impression on others led consumers to incorporate variety in situations where decisions could be observed by others.

The extent to which perceived social pressure can lead to consumer's choosing variety can vary across product attributes (Inman, 2001). Inman found that consumers are more likely to seek variety on sensory attributes, such as flavor, than on non-sensory characteristics, such as brand. Using A.C. Nielsen wand panel data, purchases from 1,900 households were tracked over a three year period. It was found that consumers switch more intensely between flavors than between brands. This was true for both cake mix and tortilla chips.

1.3 Variety Seeking in the Wine Domain

Variety-seeking has been a topic of interest in the wine area for the last two decades. Researchers compared enthusiasts who switch the region of their wine purchases frequently to those with lower levels of variety-seeking behavior (Dodd et. al. 1996). According to Bloch (1986), product enthusiasts are consumers that possess an enduring involvement with certain products. The willingness of consumers to drink wine from a variety of regions has been used previously as a measure of variety-seeking in the wine domain (McAlister and Pessemier, 1982).

Dodd et. al. (1996) found that variety-seekers consult more information sources than lower variety seekers. Variety avoiders spent less money on wine annually and consumed wine less frequently than variety neutral or variety seeking consumers. No significant associations were found between the amount of variety sought and age, income, or education.

Goldsmith, d'Hauteville and Flynn (1998) studied innovative consumer behavior because they felt it important to know who the potential earliest adopters of a new product are so special marketing efforts can be directed toward their trial and eventual adoption. Innovators act as gatekeepers for new products and can also provide early feedback to marketers. The domain specific innovativeness scale (Goldsmith and Hofacker, 1991) measures the innovativeness or tendency of wine consumers to be among the first to try new wine products. An international sample of respondents from England, Germany, and France showed that wine innovators in all three countries tended to be heavy users of wine. In addition, they were more involved and more knowledgeable about wine than later adopters.

Another factor to consider is risk. Campbell and Goodstein (2001) found that when the goals of a purchase are high risk, people become more risk averse and have a greater preference for familiar options. "For example, the goal of choosing a good wine for a socially risky occasion is likely to lead to a preference for a product that matches expectations rather than for a novel product (p. 441).

Wine has long been observed to be a complex product. Rasmussen (2001) found that in many situations, wine consumers simply purchase a familiar brand as a way to avoid processing the complex information.

Orth and Bourrain (2005) integrated consumer behavior, psychology and marketing in order to investigate the role of retail atmospherics in stimulating variety-seeking behavior in wine purchases. Wine marketers have found that buyers are often hesitant to try new brands and varieties because such choices are perceived to be risky. The research found that the pleasantness of a scent moderated the effects of optimum and actual stimulation on variety seeking and risk taking.

Knox (1998) asserts that most customers buy on a portfolio basis and brand loyalty is relative. He points out that 99% of British gasoline consumers buy more than one brand and 85% of customers shop at more than one grocery retailer. Some customers are "switchers" who change brands opportunistically for discounts and lower prices while others are variety seekers who will purchase different products on different occasions. Research conducted at upmarket wine stores in the London, England area found that variety-seekers would buy their preferred wine only one time out of fifteen. He cautioned that variety seekers are expensive customers because they need the stimulation of a large variety of wine from which to choose and are prone to sales promotions.

In addition to brand, consumers often buy wine at a variety of price points (Hussain et. al, 2007). They found that consumers at all levels of knowledge were variety seeking as far as the price paid per bottle of wine. They also point out that shoppers often appear confused during the wine

selection process and consumers have trouble remembering which wines they have previously bought and liked.

2. RESEARCH QUESTIONS

Based on the review of the literature several research questions were developed with a focus on US wine consumers

- 1) What are the different levels of variety seeking behavior amongst wine consumers?
- 2) Are there differences in consumer characteristics based on their variety seeking level?
- 3) Are there differences in values of consumers based on their variety seeking level?
- 4) What type of relationship do different levels of variety seeking consumers exhibit towards wine, in terms of: a) consumption frequency, b) average price paid c) purchase location, d) wine knowledge, e) wine involvement, and f) preferred varietals?

From a marketing segmentation perspective, it is important to understand how consumers approach wine from a variety seeking perspective. The results can assist wine marketers in developing more focused promotions, as well as to provide directions for future wine business research.

3. METHODOLOGY

3.1 Creation of market segments based on variety seeking behavior.

An online survey was developed to measure variety seeking behavior, as well as to gather data on consumer characteristics, values, and their relationship with wine in terms of consumption frequency, preferred varietals, self-assessed wine knowledge and involvement, as well as purchasing behavior. A total of 84 questions were included in the survey, utilizing standard 5-point Likert type scales, or simple rating questions.

Membership in discrete market segments based on variety seeking tendencies are the criterion variable for this study. In order to measure variety seeking behavior among wine consumers, the VARSEEK scale, first developed to measure variety seeking tendencies with respect to food, was adapted to wine (Van Trijp and Steenkamp, 1992). All items were measured on a 5-point Likert type scale where 1 equaled strongly disagree and 5 equaled strongly agree.

In order measure individual values, the Schwartz Value Inventory (SRI) was used as the framework (Schwartz, 1994). For the remainder of the questions, standard scales to measure wine knowledge and wine involvement were used, as well as the Wine Market Council's measurement of consumption frequency. For wine varietals, information was sourced from Nielson scan data to identify the top 12 most popular varietals consumer in the US.

The resulting survey questions were beta-tested, and minor revisions were made. The survey was launched on March 12, 2012 using Survey Monkey and the services of Survey Sampling International. The target sample was wine consumers from the southern part of the US. This demographic was selected because the southern states of Florida, Georgia, Texas, and others are growing quickly in terms of wine consumption. The survey was ended on March 19 2012, and resulted in a total of 401 usable responses for the analysis.

4. RESULTS

4.1 Variety Seeking Behavior in Wine

The results of the measures from the VARSEEK scale are listed in Table 1, along with the means and standard deviations. The Chronbach's Alpha for the scale was .864 providing evidence of internal reliability among the eight items.

Table 1. Measures of Variety Seeking Behavior in Wine

Measures for Variety Seeking Behavior	Mean	Standard Deviation
1. I like to try the most unusual wines, even if I am not sure I would like them.	3.27	1.09
2. I think it is fun to try out the wines I am not familiar with.	3.82	.89
3. I like to drink exotic wines.	3.36	1.06
4. At dinner parties, I enjoy trying new wines.	3.78	.89
5. I like to try wines from different countries.	3.76	.94
6. I am constantly sampling new and different wines.	3.26	1.06
7. I prefer to drink only the wines I am used to. (Reverse scored)	2.34	.89
8. I am afraid to try wines I have never had before. (Reverse scored)	3.04	1.08

Chronbach's Alpha, .864, N = 387

4.2 Cluster Analysis into 3 Market Segments

Next, cluster analysis was used to identify distinct market segments based on their wine variety seeking behavior. Using this approach simplifies data structures and facilitates discussion of marketing activities directed at discreet target market segments. A solution with 3 market segments was selected for interpretation in this study. A 3 segment solution allows researchers to adopt the polar extreme approach of comparing the two extreme groups, those whose members exhibit low and high variety seeking behaviors (Hair et al., 2006, pg. 288). The 3 segments were labeled high variety seekers (n = 159), moderate variety seekers (n = 178), and a smaller group labeled variety avoiders (n = 64).

ANOVA and discriminant analysis were used to profile the 3 market segments (Hair et al., 2006, pg. 626). Given a single categorical criterion variable and multiple continuous predictor variables, univariate ANOVA was first used to profile group members. Discriminant analysis is the appropriate statistical technique for testing whether group means, in this case for variety seeking segments, are equal. Its use is appropriate when a large number of interrelated predictor variables are involved as is the case in this study. Loadings can be used to determine which variables contribute the most to discriminating between group membership.

Table 2 presents findings of the analyses used to identify the nature of the 3 groups. As the same measures used to first create the groups with cluster analysis were then used in the discriminate analysis and ANOVA to describe their members, the finding have no inferential purposes.

Table 2. ANOVA and Discriminant Analysis for Variety Seeking Measures for Variety Seeking Segments

Variety Seeking Measures	High Variety Seekers Mean, N = 159	Moderate Variety Seekers Mean, N = 178	Variety Avoiders Mean, N = 64	F-Ratio	Sig.	Loading
1. I like to try the most unusual wines, even if I am not sure I would like them.	4.12	3.01	1.71	251.3	.000	.570
2. I think it is fun to try out the wines I am not familiar with.	4.40	3.72	2.54	211.9	.000	.519
3. I like to drink exotic wines.	4.18	3.13	1.84	239.2	.000	.556
4. At dinner parties, I enjoy trying new wines.	4.38	3.59	2.71	132.7	.000	.414
5. I like to try wines from different countries.	4.39	3.59	2.52	155.6	.000	.448
6. I am constantly sampling new and different wines.	4.11	2.97	1.86	225.8	.000	.539
7. I prefer to drink only the wines I am used to. (Reverse scored)	2.62	2.30	1.75	22.4	.000	.169
8. I am afraid to try wines I have never had before. (Reverse scored)	3.54	3.59	2.52	55.5	.000	.267

First discriminant function significant at $p = .000$. Centroids are High Variety Seekers, 2.07, Moderate Variety Seekers, -.60, and Variety Avoiders, -3.83.

4.2 Describing the 3 Variety Seeking Market Segments

4.2.1. Consumer Characteristics

The remaining analyses seek to further describe the 3 market segments in terms of their consumer characteristics, values, and relationship with wine. The first set of analyses focused on common demographic attributes used in market segmentation strategies. Age was measured using 4 categories matching generational groups. The first category was age 21-33, known as the Millennials, the second category was age 34-45, Generation X, the third category was age 46-63, the Baby Boomers, and the final category, older than 63 were the Seniors. Gender, educational attainment and income were also measured using standard formats. The results of the ANOVA showed that age is the only consumer characteristic on which the variety seeking segments differed, with high variety seekers being the youngest, moderate variety seekers are in the middle and the variety avoider the oldest in terms of their mean age. Duncan's Post Hoc test revealed that the 3 segments are significantly different from each other in terms of age. The

results of the ANOVA revealed there are no significant differences among the 3 market segments in terms of their gender, educational attainment and income levels.

Table 3. ANOVA for Consumer Characteristics and Variety Seeking Segments

Consumer Characteristic Measures	High Variety Seekers Mean N = 159	Moderate Variety Seekers Mean, N = 178	Variety Avoiders Mean, N = 64	F-Ratio	Sig.
Age (4 categories, 1 = 21-33, 2 = 34 – 45, 3 = 46-63, and 4 = greater than 63)	2.10	2.60	3.02	20.59	.000*
Gender (1= male, 2 = female)	1.53	1.59	1.55	.750	.473
Education (1 = some high school or less, 2 = high school graduate, 3 = some college, 4 = college graduate, 5 = some graduate school, 6 = completed graduate school)	3.53	3.63	3.61	.285	.752
Income (1 = less than \$20,000, 2 = \$20,000-\$29,999, 3 = \$30,000-\$39,999, 4 = \$40,000-\$49,999, 5 = \$50,000-\$69,999, 6 = \$70,000-\$99,999, 7 = \$100,000-\$149,999, 8 = \$150.000 and over)	4.27	4.13	4.14	.180	.835

*Duncan Post Hoc Test, each subset differs from others.

4.2.2 Consumer Values

The research investigated whether the 3 market segments differed in terms of the values held by its members. To measure individual values, the Schwartz Value Inventory (SRI) was used as the framework (Schwartz, 1994). This approach has been used in wine marketing research to better understand wine market segments (Mueller, Remaud and Chabin, 2011). The specific scale items used to measure values were developed by Held, et al. (2009) and are presented in Table 4.

The results of the ANOVA and discriminant analysis show that members of the 3 market segments were different in terms of many of the core values they held. A lower mean score indicates greater agreement that the value is seen as important. High variety seekers are most likely to hold values that creativity is important, whereas the variety avoiders place less value on creativity. The high variety seekers value fun and enjoyment of life and they are more likely to value an exciting life and risk taking more than variety avoiders. High variety seekers are also more likely to value money and expensive things than variety avoiders and they also value

success and having others recognize their achievements. High variety seekers are also more likely to express values to help others and care for their well being, and care for nature and the environment. On each of the above measures, the moderate segment lies in the middle. The three groups did not differ in terms of valuing a safe and secure surroundings, to behave properly and meet the expectations of others, and to value the traditions and customs derived from religion and family.

Table 4. ANOVA and Discriminant Analysis for Consumer Values and Variety Seeking Segments

Measure of Values (6 point scale where 1= higher agreement and 6 = less agreement	High Variety Seekers Mean, N = 159	Moderate Variety Seekers Mean, N = 178	Variety Avoiders Mean, N = 64	F-Ratio	Sig.	Loading
It is very important to think up new ideas and to be very creative	2.25	3.05	3.30	21.36	.000	.585
It is very important to have a lot of fun, a good time and enjoy life	1.94	2.26	2.46	5.86	.003	.314
It is important to have an exciting life and take risks	2.41	3.32	4.16	47.83	.000	.897
It is very important to have a lot of money and expensive things	3.81	4.19	4.68	9.45	.000	.394
It is very important to be successful in life and to have others recognize achievements.	2.83	3.33	3.62	9.15	.000	.392

It is very important to live in safe, secure surroundings	2.69	2.71	2.49	.69	.501	-.070
It is very important to help people and care for the well-being of others	1.88	2.19	2.13	3.32	.037	.197
It is important to look after the environment and care for nature	2.31	2.95	2.86	11.05	.000	.371
It is important to behave properly and avoid doing things most people think are wrong	2.77	2.83	2.43	1.97	.141	-.102
Traditions are important and one should follow the customs handed down through religion or family	2.54	2.77	2.51	1.43	.240	.043

First discriminant function significant at $p = .000$. Centroids are High Variety Seekers, -.625, Moderate Variety Seekers, .227, and Variety Avoiders, .893.

4.2.3 Wine Related Behaviors and Preferences

From a marketing segmentation perspective, it is important to understand how the 3 groups of high and moderate variety seekers and variety avoiders differ with respect to their behavior and attitudes toward wine. For this paper, the a) frequency of consumption, b) the average price paid for a bottle of wine to be consumed at home, c) the place of purchase, d) a person's subjective wine knowledge, e) his or her level of wine involvement, and f) the number of varieties the person considers a favorite were investigated. Frequency of wine consumption was measured following the Wine Market Council (2012) practice of asking how often wine is consumed on a 6 point scale ranging from daily to a few times a year or less. The price a respondent usually pays for wine at the grocery store was measured using categories consistent with those used in the

trade in the US (Wagner, Thach and Olsen, 2010). The place of purchase was measured by asking participants to respond to how often they purchased wine at grocery stores, wine shops or winery tasting rooms on 5 point Likert type scales with the end points ranging from never to almost always. Subjective wine knowledge was measured using a four point scale asking the respondents how they viewed themselves, as a novice, intermediate, advanced or connoisseur concerning wine, and wine involvement was measured using the wine involvement scale first developed by Brown, Havitz and Getz (2006) and later refined by Pratt (2010). The number of favorite varietals was determined by asking respondents to check all of their favorite varieties from a list of 18 wines and totaling the number checked. ANOVA was used to test for differences between the groups, and Duncan's ranges were used as the post hoc test to identify where the differences occurred. The results of the analyses are presented in Table 5.

The findings of the ANOVA show that the 3 variety seeking segments differ on many of the wine related aspects measured in this study. The high variety seekers drank wine the most often, followed by the moderate variety seekers and lastly, the variety avoiders. In terms of the average price paid for a bottle of wine, the high variety seekers paid significantly more than the other two groups. When looking at the place where wine was purchased, the three groups did not differ in their purchases of wine made in grocery stores, and this location was the most popular for all three groups. However, the high variety seekers shopped more often than the other two groups at specialized wine stores. They also shopped most often at winery tasting rooms, followed by the moderate variety seekers, who were more likely to shop at winery tasting rooms than variety avoiders. The three groups also differed from each other in terms of their self-reported wine knowledge with high variety seekers considering themselves most knowledgeable, followed by moderate variety seekers and then variety avoiders.

Similar results were found for wine involvement where the high variety seekers, followed by the moderate variety seekers, and then the variety avoiders reported decreasing levels of involvement with wine. High variety seekers also reported having more favorite varietals than moderate variety seekers, who in turn had more than variety avoiders. Further analysis using chi-square revealed that for all varietals except white zinfandel, high variety seekers were most likely to list the named varietal as a favorite, followed by moderate variety seekers, and then variety avoiders. White zinfandel differed from other varietals in that it was most likely to be listed as a favorite by variety avoiders, with high and moderate variety seekers less likely to list it as a favorite. Overall, for all groups, chardonnay and merlot were listed most often as one of their favorite varietals.

Table 5. ANOVA and Wine Related Behaviors and Variety Seeking Segments

Measures of Wine Related Behaviors	High Variety Seekers Mean, N = 159	Moderate Variety Seekers Mean, N = 178	Variety Avoiders Mean, N = 64	F-Ratio	Sig.	Duncan's Post Hoc Test
Frequency of consumption (1 = daily, 2 = several times per week, 3 = once a week, 4 = several times per month, 5 = once a month, 6 = a few times a year or less	2.57	3.33	3.94	20.19	.000	Group 1 from 2 from 3.
When buying wine for home, average price paid. 1 = \$2-\$3 per standard bottle or equivalent, 2 = \$3-\$5, 3 = \$5-\$8, 4 = \$8-\$10, 5 = \$10-\$15, 6 = \$15-\$20, 7 = \$20-\$25, and 8 = over \$25.	4.84	4.11	3.84	16.03	.000	Group 1 from 2 and 3.
Place of purchase- Grocery Store	3.39	3.37	3.32	.077	.926	
Place of Purchase- a wine store	3.86	3.24	3.15	19.06	.000	Group 1 from 2 and 3.
Place of purchase- a winery tasting room	2.44	1.87	1.40	20.18	.000	Group 1 from 2 from 3.
Subjective Wine Knowledge	2.13	1.74	1.50	26.05	.000	Group 1 from 2 from 3.
Wine Involvement	4.15	3.50	2.74	100.59	.000	Group 1 from 2 from 3.
Number of Favorite Varietals	5.42	3.81	2.48	36.52	.000	Group 1 from 2 from 3.

4. DISCUSSION

4.1 Support of Previous Research Studies

The results of this survey are consistent with several of the previous studies on variety seeking consumers. In this study, high variety seekers admitted to trying unusual wines, even if they were not sure they would like them. They also enjoy drinking exotic wines and wines from different countries. This is consistent with Kish and Donnenworth's (1972) findings show that high sensation seekers possess a stronger than average need to seek out activities which are novel, complex, or more intense. It also supports other studies illustrating that high variety seekers are more likely to explore new stimuli (Raju, 1980; Raju and Venkatesan, 1980), such as new wine varieties in this study. Furthermore, the willingness of consumers to drink wine from a variety of regions has been used previously as a measure of variety-seeking in the wine domain (McAlister and Pessemier, 1982), and was supported by this study.

This study also confirms most of the results of Dodd et al. (1996) in that it illustrated that high variety seekers spend more money on wine and consume more wine than moderate or variety avoiders. The findings were also consistent with Dodd et al. (1996) regarding no significant associations found between the amount of variety sought and income or education. However, this study did highlight a difference in the age variable with high variety seekers being the youngest of the sample. It is not clear why there was a difference in this study compared to Dodd et al (2006), but the results do support values of the younger Millennial generation in the US regarding strong preferences for unique types of wine from different countries (Gillespie, 2013).

4.2 Implications for Wine Marketers and Researchers

This study does provide several implications for wine marketers and researchers. In terms of consumer characteristics, the fact that high variety seeking consumers are younger, consume the most wine and are willing to pay significantly more for wine, indicates that wine marketers should pay more attention to this lucrative group of consumers. Though they may not be very brand loyal due to the fact that they like to try new types of wine, they do consider themselves knowledgeable and are the most wine involved consumers in the study. Therefore, if a brand manager can emphasize creativity in its range of offerings, perhaps by brand extension with new varieties and/or different countries, this may prove quite attractive to this segment of consumers. The fact that they also prefer many more varieties, with the exception of white zinfandel, than moderate or variety avoiders, also indicates this strategy could be successful, just as long as the brand includes chardonnay and merlot, which were identified as quite popular by this segment.

The fact that high variety seekers value money and expensive things as well as success and recognition, suggests these consumers may be interested in wine brands that have offerings at different price tiers and have received rewards or high ratings. Therefore, the use of reserve wines and special vintage or library selections, accompanied by information on awards/ratings, could be appealing to them. Likewise, their strong value of helping others, nature, and the environment indicates an opportunity to emphasize sustainable winegrowing practices, and/or charitable contributions the wine brand makes.

In terms of wine purchase location this study shows that it is important for wine brands to be located in US grocery stores, as all three consumers segments researched in this study identified this location as their preferred place to buy wine. However, high variety seekers and moderate variety seekers will also go to tasting rooms to purchase wine, therefore savvy wine brands need to be located in both locations – with perhaps more exotic varietals or library selection provided in the tasting room for high variety seekers. In addition, specialized wine shops are another preferred shopping location for high variety seekers indicating that in order to reach this group, a wine brand should be represented in all three channels.

Sadly, this study highlighted the fact that consumers who prefer white zinfandel have a tendency to be variety avoiders, who are older, consume and pay less for wine, and identify themselves as low on wine knowledge and involvement. This suggests that wineries that produce large quantities of white zinfandel keep their prices low, sell only in grocery stores, and don't employ overly sophisticated labels or displays that may appear risky or too creative.

5. LIMITATIONS & FUTURE RESEARCH

There are several limitations to this study. The first involves the sample of those selected (i.e., sample selection bias) or invited to complete the survey. In a non-random, convenience sample one must be cognizant of the fact that those who were invited to complete the survey may not be representative of the general wine consuming population. A second limitation is the self-selection bias of those who chose to complete the survey. Specifically, among those who were invited to complete the survey, are those who chose to complete the survey representative of general wine consuming population. Both sample selection bias and self-selection bias can limit the generalizability or external validity of our results to the overall wine consuming public.

To mitigate the effects of sample-selection and self-selection bias associated with survey based results, future researchers may want to examine actual purchasing behavior using household panel data such as those provided by Nielsen and Symphony IRI. Household panel data follows household purchases over time, so unlike scanner data, whose smallest unit of observation is at the store level, household panel data contains demographic characteristics of the households being followed. Household panel data thus allows researchers to examine differences in purchasing behavior, such as variety seeking, across household demographic characteristics. This study could also be duplicated in other countries in order to determine if variety-seeking behavior differs by culture.

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Yes Way, Rosé!
Cross-Cultural Comparison of Consumer Preferences, Perceptions and Attitudes towards Rosé Wine

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Abstract

Purpose - The project was designed as a cross-cultural examination of consumer preferences, perceptions, and attitudes towards rosé wine.

Design/methodology/approach - The study was conducted in four markets, comprising the US, New Zealand, France, and the UK. The data were collected via a structured self-administered survey through a combination of survey administration modes (pen-and-paper and online). Descriptive statistics, Chi-square and ANOVA were used to analyse the data.

Findings - One of the key findings of this study revolves around the construction of the perceived image of rosé and how this image varies in different markets. Effectively, this study presents an overview of the perceived reputation of rosé wine in four different market structures, shaped by different cultural and image management issues.

Practical implications - The most crucial implication of this research is the cultural variation in consumer attitudes towards rosé wine.

Key words: rosé wine; cross-cultural comparison; consumer perceptions

1. INTRODUCTION

The vast majority of studies on wine consumer behaviour are focused on red or white wine, whereas research on consumption of rosé wine is virtually non-existent. However, recent market and industry trends show a growing popularity of rosé wine among consumers around the world, and thus, an increase in its production. A recent report by FranceAgriMer (2013) reveals that the world production of rosé has reached 24.1 million hectolitres, which represents about 9% of the world wine production. In 2011, 65% of world rosé production was concentrated in Europe. France is the leading rosé producer (6.5 million hectolitres in 2011), followed by Italy, the United States, and Spain. Other New World wine industries have also started positioning themselves in the rosé market.

Europeans are the main consumers of rosé. France ranks first and represents one-third of the world rosé consumption, with 11.5 litres per capita rosé consumption per annum. The United Kingdom, Germany, and Italy are also among the top rosé consumers with steady consumption rates over past years, ranging between 5-7%. In addition, markets like the UK and Germany play a vital role in importation of rosé. In 2011, 80% of world imports of rosé were made by European countries, with France and the UK alone accounting for more than half of those imports (FranceAgriMer, 2013).

There is also a growing consumer interest towards rosé in other countries, especially in the United States, which accounts for 12.9% of world rosé consumption. Likewise, there has been a substantial growth in interest in rosé amongst New Zealand consumers over the past decade. For example, in 2009, sales of rosé through supermarkets were up by 20% on the previous year (Burzynska, 2009). Additionally, FranceAgriMer (2013) reports evidence of increasing popularity of rosé in smaller countries such as Tunisia or Uruguay, where rosé represents around 60% of all wine consumption. Previous research shows that rosé wine drinkers may be especially important consumers for emerging wine regions. For example, a study of consumer attitudes towards local wines conducted in Texas revealed that the most loyal cluster of consumers are those with preferences for rosé and sweeter wines (Kolyesnikova, Dodd, & Duhan, 2008). Rosé wine drinkers thus prove a valuable market segment as local wine advocates.

Despite the global increase in consumer interest, the industry knows little about determinants of consumer preferences for rosé wine. Likewise, with the exception of one recent academic paper which focused on rosé choice drivers by Italian consumers (Corsinovi, Gaeta, & Corsi, 2013), virtually nothing is explored in the academic literature about consumer attitudes toward rosé. Although a number of previous studies reported findings concerning rosé wine (e.g., Garcia, Barrena, & Grande, 2013; Holter, 2009; Kolyesnikova et al., 2008) rosé was not the main focus of these studies, thus adding only a supplementary perspective on the topic under investigation.

The current study aims at filling this gap. The study will add to the body of academic knowledge on consumer preferences for rosé wine. At the same time, it will offer managerial-oriented results that would help wine producers develop effective marketing and sales strategies for this type of wine.

2. CONTEXT

In summarising recent trends in the world production of rosé and its increasing global popularity, the FranceAgriMer report (2013) concludes that current rosé wine drinking goes beyond the traditional consumption of wine due to the contemporary image that rosé has in

today's consumer minds. The current study will consider this notion of the *perceived image of rosé wine* and will make it a focal point of the discussion that follows. We will examine public media, trade publications and the few academic studies that address different elements of the perceived reputation of rosé.

'Unsophisticated'

For several decades now, there has seemed to exist a belief in the industry that the generally lower regard for rosé wine is due to its reputation as a simple, unsophisticated, and even boring drink (Hazan, 1982). This reputation is not helped by a long-held belief that it is made by mixing white and red wines to obtain pinkish, coloured sweet wine (Corsinovi et al., 2013). Although Corsinovi and her colleagues referred to the lack of regard for rosé in the Italian market, these perceptions have been recognized in other markets as well. For example, Mateus Rosé - a lightly sparkling wine from Portugal, deliberately sweetened for the North American and Northern European markets - was extremely popular in the UK between the 1950s and 1980s (Robinson, 2006). At the peak of its popularity it accounted for 40% of all table wines exported from Portugal. It began declining in the UK market only when more fruit driven styles of red wine from New World countries such as Australia started to appear on supermarket shelves from the 1970s onwards.

A newspaper article in the *Philadelphia Inquirer* echoes the notion of the sweet and unsophisticated nature of rosé that for years has dominated perceptions of rosé in US consumers' minds (J. Wilson, 2012). There is a historic reason behind the reputation of rosé in the US. In the late 1970s, White Zinfandel - an inexpensive, sweet, low-alcohol, jug rosé wine - became increasingly popular as an unpretentious and unthreatening drink. Today, there is probably no other drink that epitomizes the popularity of sweeter cheap wines in the US market.

While White Zinfandel and sweeter so-called 'blush' wines certainly still have their loyal consumer base in the US, recently there has been a noticeable change in consumer preferences towards drier style rosé. In an article entitled '*Rosé wines overcome their zin-ful reputation*', Wilson (2012) states that an increasing number of winemakers nowadays are making their rosés in more traditional, classic, drier French rosé styles. This inclination is also supported by a visible decline in the market share of White Zinfandel dropped from 9% in 2007 to only 3% in 2012 (Beverage Information Group, 2013).

This trend is also apparent in other New World countries. While still of mixed quality, rosé wines in New Zealand are increasingly more sophisticated than in the past, with a great diversity of styles being produced. By 2009, there were more than 140 New Zealand rosés on the market, ranging from 'robust, food-friendly dry styles to light and easy drinking off-dry aperitifs' (Burzynska, 2009). It seems that winemakers are also taking the style more seriously, rather than rosés being produced from second-rate grapes, left over after the premier wines have been made (Barton, 2013).

Interestingly, while the trend in the New World markets is towards 'classier' French-style rosé wines, in France these wines also have the reputation of not being profound, rather being a wine to be drunk at anytime. In France, that does not necessarily translate as being unsophisticated however, merely more casual in what may otherwise see itself as a rather formal, ritualistic, wine consuming society. It is associated with holidays, which are significant ritualistic events in France, but lack the formality of other rituals, such as weddings, Christmas or christenings – events at which it would be much more normal to serve champagne.

‘Seasonal’

Rosé wines have also been perceived as a seasonal beverage throughout hot summer months. In France for over 15 years now there has been a sustained campaign to market rosé as the wine of summer in general and the holidays in particular. Rosé wines tend to come from the south of France, which is where many French people chose to take their holidays: the marketing of the wine has therefore built on this association.

The seasonal image of rosé is not limited to France. It has also been popular in the New World markets. Back in 1963, *The New York Times* proclaimed, ‘Summer and rosé go together’ (Ickeringill, 1963). Since then, the US media have only been adding to the public perception of rosé as a refreshing summer drink appropriate for various casual consumption situations, such as dining at sidewalk cafes, sitting by the pool, or picnicking on New York rooftops (Bloomgarden-Smoke, 2013).

Similarly, there is a tendency in New Zealand for many rosés to be advertised as a fun, ‘summer drink’; and this is the case with wines at a range of price points. Recently, however, there is evidence that the trend towards a diversity of styles has seen a reduction in seasonality in rosé wine consumption in New Zealand. According to Bernard Budel, a business analyst at Villa Maria ‘Rosé sales in December are still three times higher than sales in July but these winter troughs are not what they once were’ (as cited in Burzynska, 2009).

Understandably, in markets where summer months are not associated with consistently warm weather, rosé wine has less of a seasonal appeal. As Matt (2010) and the Wilson Drinks Report (2013) point out, warm weather, especially if unexpectedly hot, does increase the sale of rosé in the UK. However, as these peaks in temperature are unpredictable, they can occur in spring, summer, or autumn, thus there is no direct seasonal correlation with rosé consumption patterns in the UK market.

‘Feminine’

Many products are traditionally associated with a particular gender. Wine is often referred to in the academic literature as a drink more appealing to women (e.g., Charters et al., 2011; Pettigrew, 2003) and evidence from the industry supports the notion of wine in general being perceived as a ‘female drink’ (Todd, 2005). Recently, one study examined whether perceived images of the wine’s gender may be different for different types of wine (Velikova, Dodd, & Wilcox, 2013). The results clearly indicated that along with champagne and sparkling, rosé wine has a strong feminine association attached to it. These gender associations however may be specific to the US market where the study was conducted. The extent to which these feminine associations with rosé may be comparable to other markets is unknown.

‘Regional’

Corsinovi *et al.* (2013) concluded their exploratory study of consumer preferences for rosé wine by stating that rosé is region-specific, meaning that the origin of the product is the main attribute driving the choice of rosé in retail and on premise channels. Rosé is mostly chosen locally, where it is produced and is known by consumers.

In France, a combination of holiday habits and cultural food and wine links seems to have provided the context for the current regional image for rosé wine. This has been especially significant for the Provence region in the south-east of France, where 88% of local production is now rosé, up from about 60% at the end of the 1980s (Provence Wines, 2013). In other - especially New World - markets regional links to rosé are less pronounced, unlike

other wine styles or varieties, for example Sauvignon Blanc (New Zealand - Marlborough) or Shiraz (Australia – Barossa Valley). Nevertheless, most rosé consumed in New Zealand is locally produced (Burzynska, 2009). Similarly, most rosé consumed in the US market is also regionally produced, mainly in California (Beverage Information Group, 2013). However, rosé in New Zealand does not result in a strong consumer perspective that it is ‘sweet, cheap’ as in the US market.

Contrary to the work of Corsinovi *et al.* (2013), strong regional preferences for rosé are less evident in non-wine producing countries. According to the Wilson Drinks Report (2013) promotion and price (49%) are often the choice driver for rosé in the UK rather than place of origin (6%).

3. PURPOSE OF THE STUDY

Rosé seems to be a product with a different ‘local character’ in different markets. From this perspective, it is interesting to evaluate various regional/cultural aspects that may contribute to this varying image. This can lead to valuable managerial implications for effective marketing of rosé in different countries.

With this purpose in mind, the current study was designed as a multinational project and was conducted in four markets: the United States, New Zealand, France, and the United Kingdom. The choice of the countries was determined to represent the Old World and the New World; as well as wine producing and non-producing regions. These countries were also chosen to be representative of various cultures and consumption contexts.

Thus, the research study was designed to evaluate consumer preferences, perceptions, and attitudes towards rosé wine. The broader purpose of the project was to gain a wider geographic perspective by examining these preferences, perceptions, and attitudes across a range of countries.

4. RESEARCH QUESTIONS

Due to the investigative nature of this study and the lack of sufficient conceptual and empirical support for the specific context for rosé wine, a decision was made to state the problem under investigation as workable research questions rather than hypotheses. The following research questions were advanced:

- RQ₁: What are consumer preferences and consumption behaviour for rosé wine and how do these preferences and consumption patterns vary in different markets?
- RQ₂: What are consumer perceptions of rosé wine and are these perceptions different in different markets?
- RQ₃: What are consumer attitudes towards rosé wine and are these attitudes different in different markets?

5. METHOD

5.1. Sample and Data Collection

The population of interest was wine consumers. For a balanced perspective on the topic under investigation, it was important to include highly involved consumers who are very interested in wine, as well as consumers with a more distant interest in wine. Therefore, the study employed two separate ways to recruit participants – pen-and-paper and online surveys.

Pen-and-paper surveys were distributed to visitors at two wine festivals (one in the US and one in New Zealand). It was expected that festival attendees would yield only a partial

segment of the target population. The primary motivational factors of wine festival attendees have been found to be socialisation, relaxation, entertainment, and family/friends interaction, with interest in wine not being the predominant factor (Isaykina, 2001). By contrast, online surveys using panel approaches usually attract more knowledgeable, viewpoint-orientated samples than face-to-face surveys (Duffy, Smith, Terhanian, & Bremer, 2005). Therefore, an identical questionnaire was distributed as an online survey (developed in Qualtrics) to consumers with a distinct interest in wine. Panels from databases compiled by individual researchers at various wine-related events were particularly targeted. In addition, in order to diversify the sample by including people with various levels of wine involvement, recruitment for the online survey was also garnered through posting the URL on social media network pages. Having a posted URL that participants could forward to family and friends facilitated snowball sampling through word-of-mouth.

A minimum quota of 100 surveys from each market was set in order to obtain an adequate number of responses for the comparison analysis. In order to participate in the survey, respondents had to be of legal drinking age in the country of their residence, which was verified by a screening question where participants had to provide their year of birth.

A total of 947 completed surveys were collected and used for analysis. Table 1 shows the number of responses from each market. Although the UK sample was smaller than the other three samples, the sample sizes were not extremely unbalanced to cause a problem with regards to the power of the test to detect meaningful differences between the means. According to Keppel (1993), there isn't a good rule of thumb for the point at which unequal sample sizes make heterogeneity of variance a problem. The test of equality of variance revealed that the homogeneity of variances assumption has not been violated.

Pen-and-paper surveys were collected only in the US and New Zealand. Nevertheless, the overall sample was relatively balanced in terms of the survey administration mode. Forty-five percent of the surveys were collected via pen-and-paper and 55% via an online survey.

Table 1. Number of Respondents by Market

Country	Frequency	Percent
US	250	26.4
New Zealand	355	37.5
France	217	22.9
United Kingdom	125	13.5
Total	947	100

5.2. Measures

The survey was divided into two parts – the first one included general wine preferences and consumption behaviour, along with the socio-demographic characteristics of the sampled population; the second part was geared towards assessing preferences, perceptions, and attitudes towards rosé wine. Specific measures included preferences and frequency of rosé consumption; consumption situations most applicable for drinking rosé; perception of price (compared to red and white wine); and a set of general attitudes towards rosé.

6. RESULTS AND DISCUSSION

6.1 Sample Description

The socio-demographic characteristics tested were gender, age, education, and income. The overall sample consisted of more females (59.6%) than males (40.4%). However, a between-

market comparison revealed that while females did represent a higher percentage in the US, New Zealand and French samples (63.2%, 63.4%, and 58.5%, respectively), the UK sample contained considerably more males (56.8 % vs. 43.2% females).

The respondents ranged in age from 18 to 87 years old, with an overall sample mean of 43 years. The UK sample again showed different from the other markets, with the average respondents' age being 51.6 years old, while the average age in the other markets was 44.7 in the US; 41.9 in New Zealand; and 39.5 in France.

With regards to participants' educational levels, no cross-national comparison was possible due to differences in the educational systems. However, individual market analyses revealed a noticeable trend of highly educated consumers, with more than half of the respondents in all samples reporting a college or post-graduate degree. Likewise, participants in all four samples had higher incomes than the general population in their respective market. Overall, the social-demographic background of the sample for this study (middle-aged, educated, with higher incomes) mirrored the profile of wine drinkers in general (Chaney, 2001; Dodd & Bigotte, 1997; Overby, Gardial, & Woodruff, 2004).

6.2. Wine Consumption Behavior

Given the nature of the data collection, which included wine festival attendees, wine database panels and people with a general interest in wine, it is not surprising that the majority of the overall sample chose wine as the most often consumed alcoholic beverage. There were differences, however, between the Old World and the New World. The New World participants favoured beer much more than the Old World participants. Again, this is hardly surprising given that the US and New Zealand have traditionally been beer drinking nations (Lamb, 2010; Newport, 2010; Stanford, 2000; D. Wilson, Lockshin, & Rungie, 2005).

Frequency of wine consumption was also slightly lower in the New World markets. Being a traditional wine region, France was represented by a sample with fairly high wine consumption. This is reinforced by the average spending per bottle, which in the French sample was considerably higher (11.37€) than the average bottle price in most of these markets. The UK market was represented by a notably high involvement sample, with 84% reporting they consume wine at least several times a week. The UK sample also consumed noticeably more bottles per month ($M = 8.40$), while the US market – considerably less ($M = 3.29$). The average number of bottles per month in New Zealand and France was similar ($M = 4.71$; $M = 4.58$, respectively). The overall ANOVA was significant $F(3, 941) = 34.63, p < .00$.

Higher wine consumption in the UK compared to other markets may be accounted for demographic differences. Wine consumption tends to increase with age and changes in lifestyle (Key Note, 2013; Ritchie, 2009; Ritchie & Valentin, 2011). The mean age in the UK sample was higher ($M = 51.62$) than the other markets, so this might be one possible reason for more bottles per month consumption in the UK sample. In addition, the UK was the only group to have a higher male response, almost reversing the ratios of the other countries. Being overtly involved with wine is often a more masculine than feminine activity in the UK (Ritchie, 2009; Ritchie & Valentin, 2011). Thus, a higher male response and above average age response would correspond to the UK profile of those who are most highly involved in wine.

6.3. Wine Preferences

Participants' wine preferences were tested in terms of colour and sweetness. The cross-tab analysis suggested significant differences in colour preferences ($\chi^2(112, N = 935) = 91.14, p$

= .00). There was a marked similarity between the UK and France, with 59% in both samples indicating preference for red wine. While the US sample showed only slightly lower (54.5%) preference for red, the New Zealand sample was notably different, with only 38.2% expressing preference for red and 41.6% indicating preference for white wine. There might be several reasons for this difference. First, Sauvignon Blanc constitutes 69.1% of the overall New Zealand wine production (New Zealand Wine, 2011). Secondly, data collection was conducted in December 2013 – summertime in New Zealand (the only market in the study with summer data collection), when people generally drink more chilled white wine than red.

The majority of participants indicated a preference for dry wines. The split between dry and sweet was most distinct in the UK market (81.2% preferred dry and only 7.2% preferred sweet wine). There seems to be a perception in the UK that to like sweet wines - other than dessert wines - is considered unsophisticated. There is also evidence that as a result of the recession, there is reduction in eating out and a move to home consumption of slightly more premium wines, especially amongst older and more educated social groups (Key Note, 2013). Given the demographic profile of the UK participants this may explain this finding.

The split was very different in the US market, where 53.3% preferred dry, while 46.7% preferred sweet wine. New Zealand and France reported similar preferences for dry (around 60%), but more New Zealand consumers favoured sweet wines (31.1%) compared to French consumers (20.7%). At the same time, the French sample had the largest percentage of participants who showed equal preferences for dry and sweet wines.

6.4. Rosé Wine

6.4.1. Preferences and Frequency of Rosé Consumption

RQ₁ was developed to examine consumer preferences for rosé and the frequency of its consumption in different markets. As a general observation, preferences for rosé wine were similar across the markets, with less than 10% in each sample reporting rosé as their favourite wine style. Nevertheless, preferences for rosé were the highest in the US sample (8.3%) and the lowest in the New Zealand market (2.6%), while France and the UK were relatively similar, with about 6% preference in each.

Oddly, while preferences for rosé were the highest in the US sample, analysis of consumption frequency revealed that 30% of US respondents claim they never drink rosé. This divergent response - with one group giving a preference to rosé but another explicitly against it - is much less marked in the other markets. This could be a reaction to the reputation that blush wines have in the US (cheap, sweet, and unsophisticated, but easily accessible to consumers who like a bit of sugar in their drink). On the other hand, a greater percentage of Americans choosing rosé as their preferred wine signifies that those who prefer blush wines do indeed like them. This is reinforced by the more obvious US preference for sweet wines. Unlike other markets, not a single subject in the US sample indicated equal preference for both dry and sweet – thus reflecting very polarized preferences. The split between dry and sweet was also more balanced in the US (53.3% dry and 46.7% sweet), while preferences in the other markets were more skewed towards dry wines.

Interestingly, while only 6% of French respondents chose rosé as their favourite wine style, they seem much more likely to drink it regularly than the other markets, with 17.5% drinking rosé once a week or more often, and an additional 28.1% about once a month. This leads to one proposition raised in this paper – rosé wine is region-specific. This finding clearly suggests that rosé is more ubiquitous in the life of French wine consumers; it is more

available and more visible in France than in the other markets. Rosé has been marketed in France for many years as the wine of the holidays, with unconscious associations to Provence, the Mediterranean, southern French cuisine. There is thus a very specific locational effect, which is not so obvious in the other three countries.

6.4.2. Perceptions of Rosé Wine

RQ₂ was geared towards examining consumer perceptions of rosé wine. Participants were asked if they felt rosés in general tend to be more expensive, less expensive, or about the same price as red and white wine (see Table 2 for the cross-tabulation matrix). Results indicate that in all markets, rosés are not perceived as more expensive than reds, with France being particularly cohesive on this opinion (83%). However, rosés are seen as more expensive than whites only in the New World (by 11% in the US and especially in New Zealand, 21.3%). The diversity of rosé styles and a big disparity in the price of rosé in New Zealand (Campbell, 2013) might be the reason for this finding.

Unlike the other countries, France marginally perceived rosé as less expensive than white wine. This is an interesting finding that supports the purported cheapness in the image of rosé. The French prefer rosés on holidays and hot summer days, yet they still see them as a cheaper option than white wines. This may also be because the maximum price per bottle of rosé in a French supermarket is around 12€ Even though most white wines are cheap, some of the best may be 20€, even 40€, and consumers are aware of this disparity. Rosés are perceived as convivial and easy drinking, but not profound or sophisticated as some white wines can be. By comparison, the majority of respondents in the other countries perceived rosé being about the same price as white wine.

Table 2. Perceptions of Rosé Price Compared to Red and White Wines

Market	Compared to:	Less Expensive	More Expensive	About the same price
US	Red	50.2%	5.8%	44.0%
	White	30.6%	11.0%	58.4%
NZ	Red	36.4%	9.7%	52.4%
	White	10.2%	21.3%	67.0%
FR	Red	82.9%	2.8%	14.3%
	White	62.2%	5.5%	32.3%
UK	Red	48.8%	3.2%	48.0%
	White	26.4%	5.6%	68.0%

$$\chi^2(9, N = 934) = 128.81, p = .00$$

Another question that addressed consumer perceptions of rosé asked about various situations where consumers felt drinking rosé would be most appropriate. Due to paper space constraints, this question was not included in the pen-and-paper surveys, thus was answered only by online respondents. A choice set included nine consumption situations. The by-country breakdown again suggests that rosé may have strong imagery associated with it. While ‘*At an outdoor event*’ was the top choice for all markets, followed by ‘*At home (or friend’s house) with friends*’, there were some noticeable cross-cultural differences. For example, the French were much more likely to drink rosé by itself (without a meal) in a pub or a bar. This again may be a reflection of a strong seasonal and cultural reputation of pink wine in France. In addition, the French more than the other markets perceive rosé to go with a casual meal in a restaurant or a bar.

Interestingly, more New Zealanders chose rosé as a drink for a special occasion (e.g. a wedding or engagement). Previous evidence suggests this might be due to generational differences. New Zealand Baby Boomers have been shown to be evenly split between their preference for rosé and sparkling wine, whereas Generation Y were much more likely to choose sparkling wine as their favourite (Fountain & Fish, 2010).

6.4.3. Attitudes towards Rosé wine

RQ₃ aimed at evaluating consumer attitudes towards rosé wine. A list of attitudes was developed based on the overview of literature reflecting general perceptions about rosé. Respondents were presented with a list of eight items on a 5-point Likert-type scale, anchored between 1 (*strongly disagree*) and 5 (*strongly agree*).

The by-market ANOVA revealed a significant main effect on the majority of attitudes items. Seasonality yet again played an important role in distinguishing the French market from the other countries. France had the highest mean ($M = 4.20$) for a statement related to the seasonal nature of rosé (*'I would have a glass of a rosé wine on a hot summer day'*). This was also shown in a reverse statement (*'Rosé wines are good for any season'*) where France had the lowest mean ($M = 2.88$), which is indicative of the French preference for rosé primarily during the hot summer time. In addition, the French agreed most that rosé is an easy drink, but at the same time they would not serve it to impress someone or give it as a gift.

Americans also expressed higher agreement that they would not serve rosé if they were trying to impress someone. This could be a reflection of the undesirable image that rosé has in the US in association with cheaper sweet rosés like White Zinfandel, especially among those consumers that never drink rosé (likely for that very same reason). It looks like those US respondents who do not like pink wines underlined that antipathy repeatedly on several measures. The other Anglophones may also claim not to drink rosé, but it does not seem to have the same negative image, so they appear more neutral on these attitudes measures.

No significant effect was found on two statements measuring occasions for rosé consumption. The attitudes were not country specific, reflecting a strong general feeling that rosé could be used for almost any occasion but the feeling was not as strong for special occasions. This correlates with earlier findings that all markets view rosé as a simpler style, easy to drinking wine that goes with outdoor events and casual gatherings with friends.

Given previous evidence of a consumer association of rosé with female wine consumption (Velikova et al., 2013), one statement addressed the alleged femininity of rosé (*'Rosé wines are for females only'*). There was a clear distinction between the New and Old Worlds; the US and New Zealand considered rosé more feminine than France and the UK.

Although rosé has not been found gendered in the UK and France, these findings seem contrary to previous research (Ritchie & Valentin, 2011). The fact that the UK sample did not consider rosé a female drink is particularly surprising, given that the sample was skewed towards males. There was a strong indication that the UK respondents would not drink a glass of rosé on their own (in the analysis of the situations appropriate for drinking rosé), yet they strongly disagree that it is a drink for females only.

It is also important to note that although significant differences were found on the perceived femininity of rosé, the agreement on this statement was not very strong across all markets, indicating that overall respondents in all markets feel neutral about this matter. All four means were below 2.5 on a 5-point scale. Perhaps further research on the perceived gender of rosé is needed to investigate the issue more thoroughly.

Table 3. Consumer Attitudes towards Rosé wines

		<i>Mean</i>	<i>SD</i>	<i>F</i>
Rosé wines are easy to drink	US	3.58	1.12	6.18*
	NZ	3.78	0.87	
	FR	3.95	0.80	
	UK	3.76	0.87	
Rosé wines are good for any season	US	3.28	1.21	5.31*
	NZ	3.06	0.96	
	FR	2.88	1.10	
	UK	3.10	1.12	
Rosé wines are for females only	US	2.44	1.37	29.29*
	NZ	2.35	1.05	
	FR	1.63	0.69	
	UK	1.98	0.86	
I would not serve a rosé if I was trying to impress someone	US	3.08	1.46	11.29*
	NZ	2.71	1.19	
	FR	3.30	1.30	
	UK	2.76	1.12	
I would have a glass of a rosé wine on a hot summer day	US	3.41	1.34	19.61*
	NZ	3.80	1.12	
	FR	4.20	0.90	
	UK	3.95	1.07	
Rosé wines are good for almost any occasion	US	3.10	1.26	0.87
	NZ	3.23	0.92	
	FR	3.13	1.09	
	UK	3.21	1.02	
Rosé wine makes a nice gift	US	3.05	1.36	5.47*
	NZ	3.34	0.97	
	FR	3.00	1.01	
	UK	3.21	0.98	
Rosé wines are for special occasions only	US	2.37	1.17	3.60
	NZ	2.22	0.91	
	FR	2.18	0.95	
	UK	2.03	0.83	

Note: * $p < .01$ The mean values represent scores on a five-point Likert scale anchored between 1 (*strongly disagree*) and 5 (*strongly agree*)

7. CONCLUSIONS AND IMPLICATIONS

One of the key conclusions of this paper revolves around the construction of the perceived image of rosé and how this image varies in different markets. Effectively, we can see four different market structures in each of the countries studied, shaped by different cultural and image management issues.

In France, rosé seems to have a reputation of an inexpensive, light, summer drink; enjoyable and acceptable for all. This image is tied into a ritualistic form of drinking, specifically summer holidays, outside eating, which is much less formal than a typical French meal. Yet

this viewpoint, whilst it does not see rosés as great wines, nevertheless considers that they are acceptable for all people in the right circumstances. Dry rosé styles that go well with food are preferred.

On the contrary, sweeter style ‘blush’ wines are popular in the US, especially among new younger (often female) consumers who move from soft drinks and seek softer, fruitier, sweeter wine styles (but not willing to pay much for wine). Unsophisticated rosé wine fulfills the need of these consumers for a simple (thus unthreatening) wine in contrast to preferred dry style wines of an institutionalized ‘elite’ of educated consumers who consider the wine unacceptable in any context.

In New Zealand, rosé was less popular, perhaps at least partly because New Zealand is largely a white wine producer with abundant availability of light, fresh white wines. White wines therefore fill the segments that rosé would otherwise cover, and rosé becomes less necessary. Yet, rosé is different, and therefore seems to be perceived as special, reflected by the fact that more New Zealanders in the study chose rosé as a drink for a special occasion. There is also an increasing interest amongst winemakers in making better quality rosé in a range of styles, and by extension, increasing consumer awareness and consumption of rosé.

As a mature market, the UK seems to less likely succumb to the stereotypes of a new market and to see rosé as feminine. Proximity to France and its romance for the English lends it a certain cachet, even if it is not a profound wine. While previous research suggests that rosé sold at supermarkets is generally bought by and marketed at younger females for easy drinking (Ritchie, 2009), the current sample was dominated by older males (perhaps more involved consumers). These consumers may drink rosé but in general, they see the assortment of rosé wines available in the UK market as not aimed at them, perhaps lacking the expected quality. The wine is not anathema to them, but it does not feature so much on their radar.

There are implications from this research relevant to managers of rosé wine producing companies. Most obviously, yet worth reiterating, is the cultural variation in attitudes to rosé wine, even between countries that otherwise resemble each other (e.g. New Zealand and the US; France and the UK). Additionally, the relationship of rosé wine to sugar content and the management of the perception of that relationship is crucial. Finally, the success of French producers in shifting the perception of the context in which the wine can be consumed should be noted in other countries. There was no concerted attempt across the country to link rosé wine with holidays (there is no ‘association’ of rosé wine producers) – but that nevertheless happened. That fact that a wine’s image can be modified should be an example to producers in the New World who wish to adapt consumers’ perceptions of their wine.

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Business Operations of Wine-Specialized On-Trade SMEs: The Case of South Korea

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Abstract

◦*Purpose:* This paper explores the performance of small to medium sized South Korean on-trade businesses and how their performance could be improved through a thorough understanding of service management issues

◦*Design/methodology/approach:* A field study with six businesses in South Korea was carried out. The data obtained was methodically analyzed to understand the influences of different variables within their business model. Then, we employed a simulation model to identify key factors responsible for their performance and define improvement strategies.

◦*Findings:* Customer satisfaction, number of customers and profit have been identified as key performance indicators for the South Korean on-trade business. However, it was found that the length of wine list, category management, had the most significant effect in their performance and the number of sommeliers in the business have a non-linear impact on profits.

◦*Practical implications:* The management of wine lists, category management, is a key area where wine producers should work together with on-trade to improve the performance of the whole wine supply chain. It was also confirmed from the research that on-trade businesses can take advantage of system dynamics modelling to improve their performance by testing out strategies that affect customer behavior.

Key words: On-trade business, South Korea, Customer behavior, On-trade KPIs

1. INTRODUCTION

Surprisingly, the wine industry is an important actor in the service sector. While harvesting and bottling processes are placed under the manufacturing industry and off-trade selling in retailing industry, serving wine on-trade is a major part of hospitality and restaurant industry that offer hedonic, experiential services. In terms of wine consumption, scholars have extensively investigated the wine industry, both in global and local scale, in terms of consumer behavior and decision making, e.g. Lockshin and Rasmussen (1999); Locksin and Spawton (2001); and Schiefer and Fischer (2008). Other authors have also focused on consumer decision making process (Alvelos and Cabral, 2007; Dodd et al, 2005; Perrouy et al, 2006) and wine tourism (Getz and Brown, 2007; Bruwer, 2003; Sparks, 2007). Since wine consumption is a typical consumer experience-oriented activity, hence sales being affected by such characteristic, it is understandable the extensive set of consumer studies published in the topic. However, there are fewer studies in how to manage the businesses that provide the wine consumption experience and how they can be managed to improve wine consumption. This study intends to contribute to address this research gap.

This paper studies SMEs operating in the on-trade wine channel such as wine bars (on-trade channels that specialize in wine and offer snacks as secondary revenue source), wine-specialized restaurants (on-trade channels that offer a la carte and offer an extensive wine list as available alcoholic beverage), and the bars and restaurants in independent hotels. The study involves SMEs from South Korea, more specifically Seoul and its proximity. In the South Korean wine industry, 31.6% of the market volume is accounted for in on-trade distribution (Marketline, 2013). These include wine specialized bars and restaurants. According to the latest statistics for South Korea, over 654,000 premises were registered in restaurant and on-trade businesses, of which 99.9% were SMEs. These businesses accounted for 20.2% of total SMEs in South Korea. On the one hand, over 100 new businesses open in the restaurant and on-trade business segment and approximately 33% open in the Seoul region every year. On the other hand, 60 businesses close down nationally every year, where 50% of them are in the Seoul region. As the statistics show, on-trade business is not a business without risks and with an important failure rate. The aim of the paper is to analyze the performance of on-trade wine distribution businesses in Seoul and understand performance drivers through a set of case studies supported with mathematical modelling (Kunc, 2009). Our contribution is in two areas. First, we expect to contribute to on-trade management area by highlighting the issues and key drivers determining the performance of businesses. Secondly, we contribute to the wine industry detecting best practice to incentivize wine consumption in a key region in the world for wine consumption: Asia.

2. LITERATURE REVIEW

The consumption of wine in South Korea is rather young and it is showing continuous growth in recent years (Marketline, 2013), with France being the lead supplying country (30.3% market share) followed by Chile (22.3%) and Italy (16.9%). Although wine consumption started in the early 1990's, it is still considered a luxury good, accounting for only 2% of total alcoholic beverage sector in South Korea. The majority of wine distribution occurs through off-trade premises, such as supermarkets and hypermarkets, accounting for 54.9% of total market volume. On-trade distribution (i.e. restaurants and bars) accounts for a further 31.6% of market volume (Marketline, 2013). The majority of the firms in such distribution channel are SMEs, consisting of independently owned wine bars or 'wine & dine' restaurants. The South Korean wine market is highly fragmented, where wine distributors compete strongly against each other

as well as other alcoholic beverages, namely beer and soju (distilled sweet potato spirit) that account for 74% of total alcoholic beverage sales in South Korea (Wine Market Brief, Global Agricultural Information Network, 2012). In such an aggressive climate, it deems crucial, especially for SMEs to strategize and understand what influences the business performance in order to survive the competition. We employed two theoretical streams to analyze the on-trade businesses in South Korea: on-trade business literature and service management.

2.1. Managing On-trade Business

Traditionally, the most common parameters for judging a restaurant's quality have been the existence of a supply of fine wines and the display of certain information such as the vintage (Asenjo, 2000). Currently the Michelin Guide uses the exceptionality of the presence of outstanding wine vintages and the wine service as a standard to evaluate restaurants (Michelin Guide, 2008). Gil et al. (2009) suggest a difficult balance between tradition, demand and risk in wine lists but it is a critical management instrument that provides value and prestige to the restaurant when it offers customers a complete emotional experience with plenty of surprise as well as information. Berenguer et al. (2009) found that the length of wine list differentiated top-quality fine dining establishments from others.

Despite the importance of maintaining a lengthy wine list with fine wines for the establishment's reputation, it is also a managerial issue stocking wines on the list. Many studies found that wine inventories are a substantial investment in wine-specialized businesses and the managers must consider the wine inventory turnover with care in order to maximize the financial performance of the enterprise (Reynolds, 1999). Wine inventories are usually very expensive, especially as fine wines have limited availability over time and must often be purchased by the case (Barth, 2011) and turnover can be slow. A study by Coad (2009) confirmed that, in fact, wine inventories follow the Pareto principle (Phillips-Donaldson, 2004), which suggest that 80% of sales come from 20% of items offered, meaning that extensive wine lists involve a high proportion of items that do not sell in significant quantities. While customers are more attracted by a wide selection of different items with a range of prices (Dhar et al., 2001), managers in on-trade businesses recognize that there is a trade-off between the holding cost of inventory, order costs, lead times and the demand (Barth, 2011). Often, businesses use pricing to minimize negative trade-offs. Most common method found in wine businesses was to set the price equal to two or three times the cost using a progressive mark-up, where higher margins are set to lower priced wines and lower margins to higher priced wines (Chung, 2008). An additional issue related to inventory management is that some fine wines can be cellared for years as investment, while regular wines have to be opened within a year of their purchase. It is a sensitive organizational matter for managers to control the balance of the wine inventory whilst meeting the demand of customers. This is where the crucial role of sommeliers comes to effect.

2.1.1. The Sommelier Effect

The existence of sommeliers are vital to on-trade businesses (Gil et al., 2009), where trade journals suggest that they can be responsible for increasing beverage sales by 25 percent (Hochstein, 1994). Many studies show the extent of a sommelier's responsibilities within an on-trade premise. For example, Aspler (1991) states that a sommelier can be responsible for creating and updating the wine list, ordering and cellar management, ensuring accurate inventory turnover, identifying current consumer consumption trends, attending trade tastings, participating in wine promotion and merchandising, and assisting consumer in selecting the appropriate wine to pair with meal selection. Gil et al. (2009) state the expertise of sommeliers is reflected in a highly extensive, varied, heterogeneous and innovative wine list. On the other

hand, Green (2003) suggests that a sommelier's position should provide marketing and wine education to both employees and restaurant patrons. Manske and Cordua (2005) propose sommeliers should use their product and market knowledge to directly influence wine sales by establishing credibility, employing a selected sales technique and closing the sale of wine. Training is highlighted in Granucci et al. (1994) who found that service staff increased wine sales by an average of 44% after they completed a professional wine training program.

2.2. Service Management

The elements of service management are crucial to implement and design services, in order to maintain customer satisfaction which is vital to the survival of service firms. Concentrating efforts on influential factors such as 'servicescape' and front line employees enable service firms to have successful service encounters, which can generate positive word of mouth. Other than free advertising by word of mouth, firms can benefit from repurchases and customer loyalty as customer satisfaction influences purchasing behaviors (Chen et al., 2009). The trustworthy and positive image a firm gets due to continuous satisfaction ratings serves as a form of market-validated information (Hansen et al., 2008) that can signal the underlying quality of a firm's products or services to customers (Rose and Thomsen, 2004), and directly affect customer satisfaction and lead to customer loyalty in the end (Loureiro and Kastenholz, 2011). It serves as a virtuous cycle: higher reputation companies are more likely to gain customer trust as good reputation strengthens customer confidence and reduce perception of risk (Loureiro and Kastenholz, 2011).

2.2.1. Customer Satisfaction

At the heart of service management literature is the Expectation Disconfirmation theory (Oliver, 1977). The theory states that consumers use their own subjective pre-consumption expectations to compare the post-consumption experiences of a product or service to form an attitude of satisfaction or dissatisfaction towards the product or service consumed. Disconfirmation, here, is the psychological comparison of the gap between expectation and service delivery (Oliver, 1997). As it can be inferred, managing expectations is one of the two key elements as it plays a significant role in the formation of disconfirmation as a comparison benchmark. The degree of expectations varies depending on many factors between individuals, such as past experiences, word of mouth reports, susceptibility to advertisements and price (Parasuraman et al., 1985; Zeithaml et al., 1993). The other element is the performance or the service delivery, where the consumers will obtain the experience. The experience comes from the "service encounter", defined as the period of time during which a customer directly interacts with a service (Shostack, 1985, p.243). Pizam and Ellis (1999) confirmed in their study that hospitality and tourism industries' survival mainly depends on satisfied customers, where the degree of satisfaction for those customers is derived from the success of the service encounters. This is mainly due to the fact that these industries provide experiential products and services, which cause higher physiological and emotional arousal during the encounter – and those arousals heighten the degree of experiences the customer obtains (Smith and Ellsworth, 1985). Let's review in more detail the factors affecting service and the expectations.

2.2.2. Servicescape and Front Line Employees

Of the many factors that influence customers' satisfaction, 'servicescape' and front line employees are highlighted in literature. Servicescape is defined as the physical surroundings fashioned by retailers to facilitate the service offering to consumers (Bitner, 1992). In her earlier study, she states that servicescape and employee responses significantly influence consumer experiences and hence emphasize the need to consider these factors in predicting and explaining consumer behaviors (Bitner, 1990). Ryu and Han (2011), in their study of upscale

restaurants, also concluded that the servicescape and front line employees were the most contributing factors in generating disconfirmation, where disconfirmation showed a high degree of positive correlation to customer satisfaction and satisfaction to loyalty. In particular to servicescape, Bitner (1992) found that a firm's servicescape has a direct relationship with cognitive responses, such as customer beliefs and perceptions. With respect to the hospitality industry, many researchers state that the creation and maintenance of a distinctive atmosphere is a key factor in attracting and satisfying customers, which in turn increases financial performance (Dube and Renaghan, 2000; Hertenstein et al., 2001). Sulek and Hensley (2004) found that a pleasant servicescape determines a large extent to the degree of customer satisfaction and loyalty in a restaurant visit, and Nguyen and Leblanc (2002) state that in the restaurant context, the physical environment provides customers with cues that deliver expected service quality and in turn, perceived value. As previously discussed, servicescape is proven to have an influence on obtaining disconfirmation.

Front line employees are the employees that customers interact directly in a service firm. While customers have tangible cues to what they should be expecting (i.e. through the product displays) in retail stores, customers lack the tangible aspect where they can significantly reduce the perception of risk involved in committing to a transaction in a service organization. Front line employees are found to be one of the major influences in customer satisfaction in services because they are the tangible cue for customers. Chapman and Lovell (2006) confirms the importance of the front line employees as the success of a service encounter depends on the "availability of aware, service oriented, competent employees who understand the context in which they work, and are well versed in the specific organization's strategic objectives and culture" (page 79).

2.2.3. Word of Mouth

Word of mouth is a tool used by both service providers and customers to manage expectations. The intentional verbal communications responsible for word of mouth are employed by customers when they pursue goals (Hennig-Thurau et al., 2004). For example, customers who are dis/satisfied with a particular service encounter reciprocating their bad or good experiences by talking negatively or positively about the provider in order to help or hinder attracting new customers respectively (Blazevic et al., 2013). Customers also employ word of mouth for self-enhancement purposes (De Angelis et al., 2012) as using a brand as self-representation tool allows the brand to be a symbol of status (Wilcox et al., 2009). A study by Sundaram et al. (1998) shows that typically 20 percent of customers initiate online word of mouth behavior only to fulfil a self-enhancement goal. It is observed that dissatisfied customers generate more negative word of mouth than satisfied customers generate positive word of mouth (Anderson, 1998). The degree of involvement of the customer is positively correlated to the likelihood of positive word of mouth generation following a satisfactory experience (Wangenheim and Bayon, 2007), and the degree of knowledge and interest that the customers take in the product category is also positively correlated to generating deliberate recommendations of the product or service (Berger, 2011). Word of mouth is an effective tool that customers tend to use as a trustable information source, especially the Generation Y's, where they make frequent use of social media to display such behavior (Bolton et al., 2013). Whilst word of mouth has advantages to both consumers, by reducing perceived risk and uncertainty for new customers (Tarn, 2005), and service providers, by reciprocation of additional word of mouth from the recipients of word of mouth after a positive service encounter (Sheth, 1971); it is observed to have many limitations as well. For example, the receiver's previous attitude towards the brand or service provider significantly affect the extent of effect a recommendation has (Blazevic et al., 2013).

Table 1 presents a summary of the key elements affecting the on-trade business from the perspective of service management.

Service Management		On-trade wine business
Servicescape	→	Place, location
Front line employees	→	Sommeliers
Word of mouth	→	Wine consumption experience, wine list

Table 1. Key Issues in On-trade Business

3. RESEARCH METHODOLOGY

The research methodology involves the combination of two methodologies: case study research (Eisenhardt, 1989) and system dynamics modelling (Morecroft, 2007). Case study research was conducted to gather insights and data from a set of case studies of on-trade business about on-trade business model and performance issues. Then, the insights of the case study research were employed to construct a system dynamics model to gain a deeper understanding of the business model and performance issues of the on-trade businesses. System Dynamics is a methodology to understand the behavior of complex systems over time. The main concepts employed in System Dynamics are feedback loops, time delays and stocks and flows which are assumed to be responsible for the behavior of organizational systems (Kunc and Morecroft, 2007). System dynamics modelling in organizations have many applications such as identifying strategic objectives, exploring potential strategic behavior modes and formulating improved organizational policies to achieve strategic advantage (Snabe and Größler, 2006; Gary et al, 2008). System dynamics modelling also supports decision makers to understand the dynamics of resources, and ultimately serves as a learning process to enable decision makers to better frame the relevant questions related to the performance of businesses (Morecroft, 2007).

3.1. Participants

A total of 28 premises were successfully contacted through telephone calls, where either the head sommelier or the owner was briefed of the research objectives. Only four head sommeliers, who have day-to-day contact with customers, plan the wine lists and order supplies, and two owners of the businesses accepted to be involved in the research. Unfortunately requests for direct contact with customers were denied for all participating businesses. The locations of the participating businesses are all in affluent areas in central Seoul and its proximity. The firms participating in the study are typical examples of on-trade businesses in South Korea given their size (more than 10 employees and less than 10 employees), servicescape (location of the business), front-line employees (number of sommeliers and owner-manager) and recognition based on word-of-mouth. Therefore, the sample of firms achieves theoretical saturation as indicated by Eisenhardt (1989). Table 2 shows a brief description of the firms interviewed.

Firm	Size (Employees)	Type	Location	Interviewee
A	16	Wine & Dine	Seocho, Seoul	Head Sommelier
B	7	Wine & Dine	Chungdam, Seoul	Owner
C	9	Wine Bar	Sorae-Maeul, Seoul	Head Sommelier
D	11	Wine Bar	Chungdam, Seoul	Head Sommelier
E	18	Wine & Dine	Jungja, Bundang	Owner
F	9	Wine Bar	Jungja, Bundang	Head Sommelier

Table 2. Participants

3.2. Data collection and model development

Data collection was performed in two stages. In the first stage, in-depth open interviews were conducted with the six participants to gain insights about their existing processes from forecasting demand and sourcing the inventory to marketing of the wine list; and to discuss any strategic issues the firms were facing. The interviews were analyzed together to find similarities among business processes and performance issues in the six individual businesses in order to achieve theoretical saturation (Eisenhardt, 1989). The insights of the set of case studies were compiled in a generic causal loop diagram (Morecroft, 2007) of the on-trade business model (see figure 1 in section 4.1). The second stage involved additional interviews to validate the representation of the on-trade business model and obtain quantitative data such as turnover, costs and margins to develop the model (see appendix for an explanation of the variables employed in the model).

4. RESULTS

4.1 On-trade business dynamics

The on-trade business model comprises three areas: customer behavior, front-line employees and servicescape, which are strongly interconnected.

Customer behavior. An increase in high service quality leads to positive customer satisfaction and subsequent positive word of mouth increasing the number of customers. If there are too many customers to serve, with a fixed number of staff, the service quality will fall leading to a decline in customers in the long term. A negative feedback loop (A) reflects customers' behaviors.

Servicescape. Servicescape is a self-fulfilling prophecy, driven by a positive feedback loop (B), where a rise in service quality achieved by training staff will positively affect customer satisfaction. Higher customer satisfaction increases staff motivation improving service quality even further. It is also possible that the effect may be the opposite, where a fall in service quality will decrease the customer's experience in the service encounter, which will increase dissatisfaction subsequently reducing staff motivation, and harm service quality even further. Central location affects positively the number of customers but reduces the size of the premises and increases costs. Higher costs affect the price which influences turnover.

Front-line employees. A negative feedback loop (C) reflects the limitations in service firms due to the limits in the front-line employees. It is widely observed that sommelier helpfulness in recommendations to customers is paramount to customer satisfaction. The positive effects of

customers' satisfaction, expressed as positive word of mouth, increase the number of customers and contribute to increasing the wine list length and diversity augmenting inventory and costs. However, a balancing effect occurs as the level of knowledge and how well versed the sommeliers are in the extended wine list reduces their helpfulness affecting customers satisfaction. Finally, the wine list diversity and length increases customer satisfaction as they have more choices reinforcing the positive dynamics of wine list (the positive feedback loop – D–). As described in the previous feedback loop (C), customer satisfaction positively influences word of mouth and increases the number of customers. This contributes into increasing the wine list length and diversity, and this virtuous cycle creates the positive feedback loop.

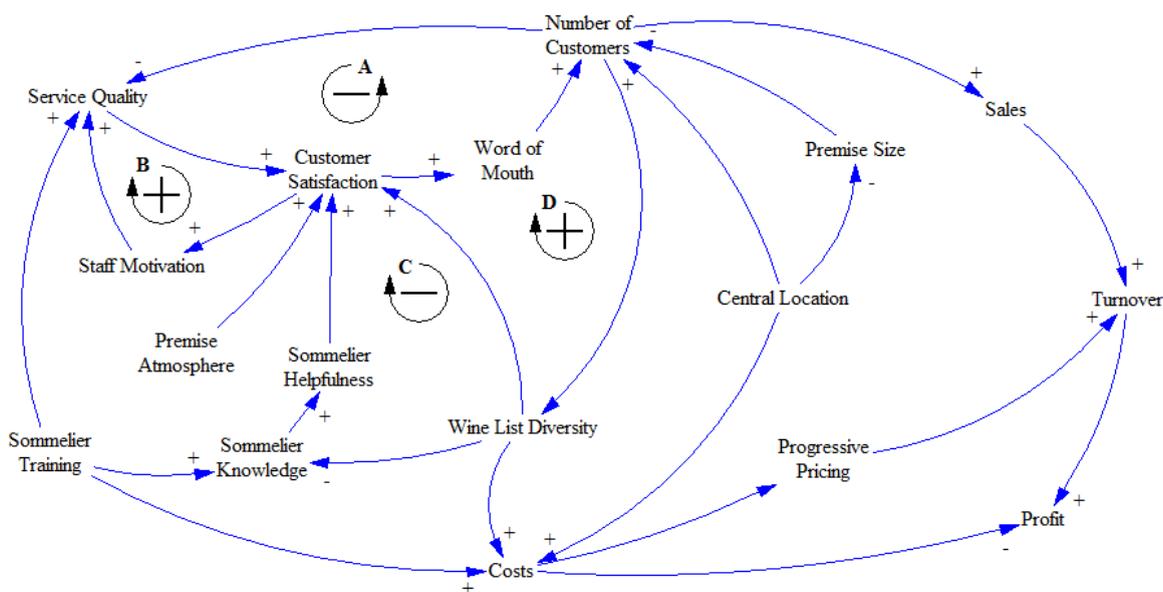


Figure 1. On-trade Korean Business Dynamics¹

4.2 On-trade business performance analysis

Customer loyalty is one of the factors that influence any firm's performance and survival. It is evident that attracting new customers carry more costs than retaining customers, and it is costly to lose customers. Hence, one of the strategic paths for small businesses, which cannot afford to invest marketing to attract new customers, is to focus on its customer retention. In on-trade businesses, customer losses are dependent on the level of service quality, which is affected by the total number of customers and the number of sommelier available to assist those customers. In order to increase the service quality, an on-trade business portrayed in figure 1 has to either decrease its total customer numbers or optimize the number of sommelier employed. The former is not a viable option as the purpose of any business is to retain its customers not to lose them. However, the on-trade business has to keep in mind that an overemphasis on retaining its

¹ Causal loop diagrams are used to illustrate feedback systems (Morecroft, 2007). The main components are arrows, polarity and feedback processes. Arrows indicate the direction of causality between two variables. Positive (+) or negative (-) signs at arrow heads indicate the polarity of relationships between two variables: a '+' indicates that an increase or decrease in a variable causes an increase or decrease in the related variable. If the sign is '-', a change in a variable will cause a change in the opposite direction in the related variable. The nature of the feedback processes is represented using 'loop identifiers', such as + or -, which indicate the type of feedback process. '+' denotes a positive (self-reinforcing) feedback, or '-', which indicates a negative (balancing) feedback process (Morecroft, 2007).

customers should not affect its financial performance.

Table 3 shows the calculated figures from a simulation. The table shows the percentage change in customers (net growth rate) and profit when there are different numbers of sommeliers employed, which are key front-line employees. Profit sees an extreme increase when sommelier numbers are reduced due to the savings in training costs and salaries, which are a large proportion of total costs. However, the business is not sustainable given the high level of customers' losses. Since businesses do not want losses or a decrease in total number of customers, the employment of one or seven sommeliers is not an option. In order to minimize the average customers' losses and maximize profit, employing two sommeliers in on-trade business seems to be the most viable option for business of similar size.

	Number of Sommelier Employed						
	1	2	3	4	5	6	7
Average Customer Loss	61.6	4.7	7.1	9.5	11.8	14.2	0.0
% Change In Customers	-7.23%	0.52%	0.78%	1.04%	1.30%	1.56%	3.76%
% Change In Profit	537.0%	453.4%	349.3%	245.2%	141.0%	36.9%	-81.4%

Table 3. Impact of number of sommeliers on customer growth and profits

Whilst the importance customer loyalty is emphasized for any firm, the importance of front line employees to maintain customer loyalty is highlighted in the service business context. The front line employees have a great influence on customer satisfaction. In on-trade context, the front line employees are the sommeliers but the wine list also influences the reputation of restaurant. The performance of sommeliers is influenced by the length of wine list and the training every sommelier employed receives. The performance of sommeliers feeds into the number of good recommendations to customers. In one scenario, the number of sommeliers is kept fixed on six sommeliers. It should be noted that the financial performance is reliant not only on customer satisfaction but also on staffing costs that includes cost of training. Table 4 shows the performance based on varying training costs and wine list. The results are counter-intuitive since reducing the wine list has a positive effect in the number of recommendations at different levels of training, as well as reducing inventory costs. The customer satisfaction increases as the investment in training increases good recommendations leading to fewer customers losses. The combination of both drivers leads to more profits.

	% Change In Parameter: Training Effect (Wine List)				
	+25 (-50)	+25 (+50)	Base	+50 (-50)	+50 (+50)
Number of Recommendations	2194	1616	1483	3292	2424
Customer Satisfaction	0.015	0.011	0.010	0.022	0.016
% Change In Profit	37.8%	44.4%	36.9%	50.9%	65.3%

Table 4. Impact of training and wine list on customer satisfaction and profits

5. DISCUSSION

Customer loyalty is one of the factors that influence any firm's performance and survival. Customer loyalty is mainly driven by customer satisfaction. However, customer satisfaction is affected by a set of non-linear feedback processes (see figure 1). For example, staff motivation affects service quality, which is one of the factors affecting customer satisfaction, together with the knowledge of sommeliers about wine. Success breeds success since customers' experience generates positive word of mouth increasing the popularity of the place (Kunc, 2009). Simultaneously, the same success is generating future issues because more customers reduce service quality and impose more demands in the wine list. Managing an on-trade business over time is a complex problem due to the multiple trade-offs (Barth, 2011).

In on-trade literature, one of the most common parameters to judge a restaurant quality is the existence of a large wine list (Berenguer et al, 2009). However, Coad (2009) suggests that wine inventories follow the Pareto Principle: 80% of sales are obtained from 20% of wines. Our field research on South Korean on-trade shows that the Pareto Principle is valid for improving customer satisfaction as sommeliers can provide better recommendations. Therefore, it is important for on-trade to avoid being tempted to expand the wine list as customers demand it (see table 4). This insight is clearly related to the issues reflected in the category management literature. The existence of sommeliers is significant for on-trade businesses as they can increase beverage sales by 25% (Hochstein, 1994) given a better service quality. However, our analysis shows a non-linear relationship between the number of sommeliers and the profits associated. More sommeliers may provide better service quality increasing number of customers but the main limitation is not only the costs involved (as table 3 shows) but also the servicescape. Highly successful on-trade businesses may not be able to expand their location to cater for more customers if it is located in a central location.

6. CONCLUSION

Our research in South Korean on-trade can contribute to reduce the number of on-trade business that exit the industry every year. The model demonstrates the importance of trade-offs in on-trade businesses between the multiple set of factors responsible for driving customers satisfaction, e.g. wine list, sommeliers, servicescape, and their impact on profitability, embedded in non-linear relationships. From the perspective of wineries, our findings contribute to their product portfolio planning, marketing efforts and training for on-trade channel. It is important to recognize wine consumption occurs in hedonic, experiential services that can be optimized through analytical tools (Kunc, 2009) as our research has shown.

Additional avenues for research should consider comparative studies in other countries to validate the on-trade business model found in our research as well as develop a finer grained model including more detail on specific factors.

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Appendix

Variable	Description	Values												
Central Location	Centrality of location of the business. It determines the accessibility of the premise and the market reach it has to potential customers.	This variable affects the number of customers in the model. On average, there are 8000 customers												
Costs	The total costs including rent, staff salary and training, variable costs of wine ordering.	Salaries in pounds for sommelier, training costs, costs of the wine.												
Customer Satisfaction	The overall customer satisfaction derived from experiences at service encounter. Satisfaction is dependent on the difference between the customer's perceived service quality and the degree of expectation.	It is measured through the level of service quality (based on number of sommeliers which is six) and good recommendations (knowledge)												
Number of Customers	Total number of customers, past, current and future.	On average there are 8000 customers per year.												
Premise Atmosphere	The servicescape comprising but not exclusively to the décor, ambience and mood as well as food	This variable has been quantified as type of food: snack or a la Carte.												
Premise Size	Premise size is the number of seating and tables available to customers. The more central the location gets, the size tends to decrease as a result of higher rent.	This variable affects the number of customers in the model. On average, there are 8000 customers												
Profit	The operating profit consisting of purely turnover and costs, before any taxes or interest payments.	Basic accounting profit calculation												
Progressive Pricing	Progressive pricing is where the margins applied to the range of wines are done inversely. More expensive, fine wines are priced with significantly lower margins than the cheaper, everyday wines.	<table border="0"> <tr> <td>Price</td> <td>Margin</td> <td>% sales</td> </tr> <tr> <td>High price (£77)</td> <td>1.20</td> <td>5%</td> </tr> <tr> <td>Medium price (£27)</td> <td>1.35</td> <td>55%</td> </tr> <tr> <td>Low price (£13)</td> <td>1.45</td> <td>40%</td> </tr> </table>	Price	Margin	% sales	High price (£77)	1.20	5%	Medium price (£27)	1.35	55%	Low price (£13)	1.45	40%
Price	Margin	% sales												
High price (£77)	1.20	5%												
Medium price (£27)	1.35	55%												
Low price (£13)	1.45	40%												
Sales	Total units of sales	Mix of sales units by type/price												
Service Quality	Service quality in a wine on-trade business setting predominantly depends on the qualities and skills of the sommelier.	Number of sommeliers per customer.												
Sommelier Helpfulness	The quality of recommendations and hence, the number of good recommendations the sommelier gives to customers.	Number of good recommendations is derived from training and size of wine list.												
Sommelier Knowledge	Knowledge about wine and the wine list: general knowledge from the origin, vintage and tastes to what accompaniments make a good marriage with the selection.	Partial quadratic curve based on the size of the wine list.												
Sommelier Training	Formal training academies are available for trainee sommeliers, and periodic tasting courses for the qualified.	Cost per person per year to attend a sommelier academy.												
Staff Motivation	The degree of motivation for the staff to work productively and without excess stress.	Not included in the model. Very difficult to measure.												
Turnover	Turnover that derives from units sold and the consequent price.	Basic accounting turnover calculation												
Wine List Diversity	The length of wine list and the diverse price ranges available resulting from the origin, type and vintage.	Number of wines in the wine list on average is 250.												

Table A. Description of the variables and values obtained from our research



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**What is the concept of terroir?
PART 1:
Discussion with Bernard van Berg,
a wine-grower in Meursault:
A case study on "the most simply wine"**

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Key words: terroir, Burgundy, Meursault, van Berg, "the most simply wine", New World, Old World, Pinot Noir

ABSTRACT

This paper is part of an international project whose purpose is to explore traditional and evolving modern concepts of terroir with thought leaders from the Old world and New world of wines. Here, we will focus on an original wine “thought leader” from Burgundy (France), Bernard van Berg. This leader was interviewed based on an interview guide which will be also extended to other regions of the New World and the underlying idea is to gain a global scope on “terroir”, its nuances of meaning and its diversity. In other words, the purpose of the paper is to try to demonstrate whether the concept of terroir is the same in the New World as in the Old World and therefore, to identify what the convergent and divergent components of the concept are.

LITERATURE REVIEW

"Terroir" is no longer a French term; it is used all over the world. However, there is a risk today that consumers, wine writers and well-informed wine people use the term “terroir” to emphasise quite different things and so “terroir ambiguity” is created for consumers, marketers and wine exporters alike. The history of the evolution of what came to be known as terroir is a social history, possibly part myth and part stories. However, the trial and error adaptations over time in location and climate, grape clones and methods, are the result of human choices. In modern management terminology, this was a “continuous improvement” aspiration.

Ballantyne (2011) argues that the guiding promise of terroir is socially constructed (Figure 1). Once the human (or social) element is enjoined with the technical aspects of terroir, the relationship between the social elements (including history and enduring habits) and its more familiar technical expression (including advances in scientific knowledge) can be understood as accounting for variations in opinions and practices between wine places, and as a consequence, difficulties in arriving at a definitive statement on terroir. For example, the technical know-how necessary for developing a consistent wine reputation in a young and New World region is very much the consequence of human choices and collaboration, a social dimension of terroir. Furthermore, the socially constructed promise of terroir goes beyond viticulture and winemaking collaborations, and extends into the word-of-mouth commentary spread by winemakers, wine writers and cellar door staff, as well as by enthusiastic customers around the world. We would argue that this social element of terroir has, in various degrees, supported and extended brand value for premium wines and wineries in both Old and New World sites.

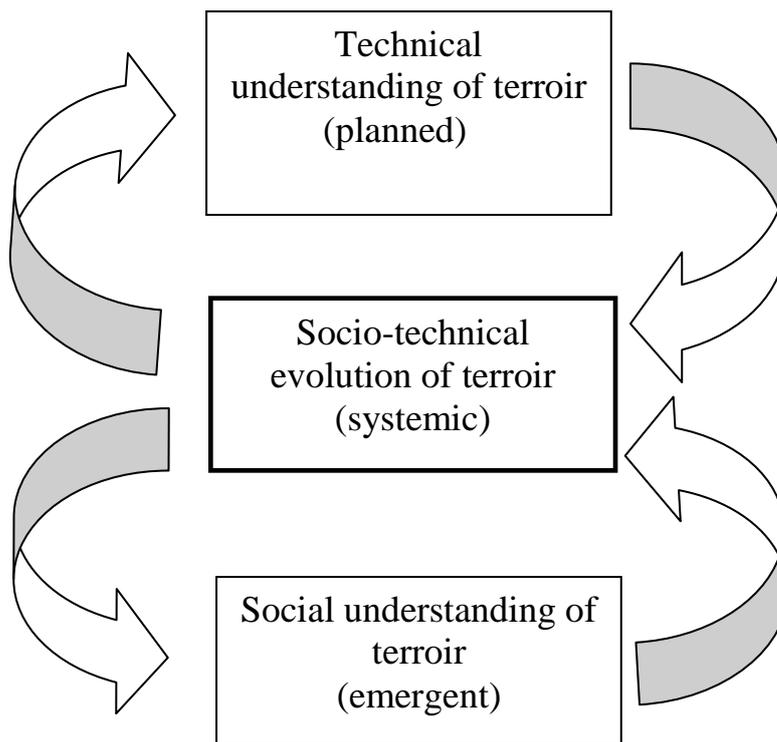


Figure 1: The promise of terroir is socially constructed

Many researchers have worked on the definition of “terroir”, and a synthesis of all the items identified by researchers that must be present or respected for terroir to exist was summarised by Spielmann and Charters (2013). They have also developed a conceptual model of terroir dimensions related to authenticity: legal recognition of terroir products, physical nature of terroir products, and subjective perceptions of terroir products.

Jancis Robinson, in her TV wine course programme, has referred to “terroir” as “a conveniently untranslatable French word which the French use as a mantra”. Nevertheless, the World Organization of Wine (OIV) came up with a definition on 1 July 2010:

Vitivinicultural “terroir” is a concept which refers to an area in which collective knowledge of the interactions between the identifiable physical and biological environment and applied vitivinicultural practices develops, providing distinctive characteristics for the products originating from this area (Resolution OIV/Viti 333/2010).

This definition and its complexity suggest to us that there is a need to refer back to qualified people “in the field” who may bring a practice perspective to unravelling the meaning of “terroir”.

The first “thought leader” was interviewed based on his credentials. From the old World, Bernard van Berg, a wine-grower in Meursault, in Burgundy was selected as thought leader since he is a small producer without a portfolio of famous appellations but managed to value and position his wines in the world's best restaurants with prices competing with the most prestigious Burgundy appellations (and being even higher than most of them). This success is not due to marketing reasons but it is linked to an in-depth understanding and observation of

the wildlife in the vines and its surrounding. His approach is challenging the traditional old world's vision of appellation systems (1935) since he is refusing the hierarchical approach and the constraints in terms of viticulture, wine-making and yield imposed by the system. This year, he decided to declassify its wine (in Vins de France; the lowest category in wine production) and change the shape of the bottle in order to avoid any confusions with other Burgundy appellations and reach its mission, which consisting in producing the most simply wine, as it used to be in the origins of production.

PRESENTATION OF THE ESTATE

This estate was created in 2001 by a Dutch photographer living in Belgium, Bernard van Berg and made his first harvest on September 25, 2002. Its size is very small, even in Burgundy standards, with an area of 2 hectares of vines among which 50 acres of fallow land are awaiting planting to achieve biodiversity. The 4 grape varieties present on the estate are pinot noir, chardonnay, aligoté and gamay. The estate is producing 15 cuvées and the total production is very limited depending on the vintage (2008 : 1200 bottles; 2007 : 3000 bottles; 2006 : 1500 bottles; 2005 : 3000 bottles) due to limited yield (between 5 and 13 hl/ha or in other words, as small as 2 or 3 grapes per wine. The estate is Organic Agriculture AB certified by "Qualité France". Pruning starts deliberately late, never before March 1.

Regarding viticulture, the pruning method is specific to the Domaine and adapted to each plot. Here are the main methods used: "Baïonnette à 2 yeux"; "Cordon de Royat"; "Gobelet" or other methods according to the results of various trials. There is a total absence of "Guyot" method, which is the major pruning method in Burgundy. A new type of training system for the vines was initiated recently "Evasivage" (shoot positioning) whose purpose is the elimination of badly placed shoots and control of wild vegetation from April to July. The elimination of verjuice arises in August. Another key aspect is the rejection of tractors on the property. Soil is worked by horse and plough or not tilled at all when it is not necessary. The philosophy of the estate is to prevent the modification of the natural soil or the addition of fertilizers of any type. At the same time, no insecticides or herbicides are used. In order to control the health of the leaves, products intended for Organic Agriculture: organic milk and sea salt are used (in order to reduce the amount of non penetrating organic sulfur and organic copper). The harvest is manual.

Regarding vinification, no fermentation agents (cultured yeast) are used. There is no chaptalisation. The grapes are not destemmed. The maturation is between 15 and 27 months in 100% new barrels (for white, red and rosé wines). The wine is manual bottled, unfiltered without fining agents. Bottles consist of practically inert glass of 960 grams with very long natural corks of 54/24. The wine is really made by a "craftman" winemaker, which justifies the limited size of the Domain. All the wines used to be classified as BGO (Bourgogne Grand Ordinaire, also called Côteaux Bourguignons), which corresponds to the regional appellation (the lowest rank in the 4 levels of the appellations system of Burgundy) but from vintage 2012, Bernard van Berg decided to declassify his wine from regional appellation to Vin de France (former label of table wine) and also change the Burgundy-shape bottle for a new bottle-shape. The estate is considered locally as something exotic, odd and original but is internationally recognized: for example, in the Danish Restaurant Noma (elected best restaurant of the world in 2010, 2011 and 2012), the vintage 2009 Chardonnay Cuvée 'Les Echallas' is charged a bit less than 4'000€ Here is a table with a description of all the cuvées produced.

Table 1. List of cuvées produced by Bernard van Berg (indicative prices in 2013 for direct sales at the estate)¹

Name of the cuvée/brand	Name of the plot	Name of the commune	Grape variety	Year of planting	Comments	Price 2013	Vintage
"En Busigny"	lieudit En Busigny	Meursault	Chardonnay	1957	White	130€	2011
"En Busigny"	lieudit En Busigny	Meursault	Pinot-noir	1957	Red Vines pruned in Cordon de Royat	95€	2010
"Les Gamets"	lieudit En Busigny	Meursault	Gamay	1957	Red vines supported by short stakes (Echalias 110 cm)	180€	2009
"Les Echalias"	lieudit En Busigny	Meursault	Chardonnay	1957	White vines supported by short stakes (Echalias 180 cm)	1'455€	2009
"Les Echalias"	lieudit En Busigny	Meursault	Pinot noir	1957	Red vines supported by short stakes (Echalias 180 cm)	1'280€	2009
"La Rose"	En Belles-Roses (formely owned by the Citeaux Abbey)	Meursault	Pinot-noir	1957	- rosé - red - vin jaune (depending on the vintage) Vines pruned in Bayonet	- 160€ -	2009
"Les Goutte "	lieudit Les Gouttes	Meursault	Aligoté	1985	white	165€	2011
"Les Reippes"	lieudit Les Reippes	Saint-Aubin	Aligoté	1968	White		
"La Combe"	lieudit La Combe	Puligny-Montrachet	Gamay	1954	Red vines partly supported by short stakes		
"Les Bergers"	lieudit Les Bergeries	Puligny-Montrachet	Pinot-noir	1970	red	85€	2009
"Le Fourneau"	lieudit Le Fourneau-Sud	Rully	Chardonnay	1990	white	240€	
Eau de vie "La 147"					50%	295€	
Eau de vie "La 151"					65%	1'650€	

¹ The prices depend on the vintage quality and the Echalias Cuvée is only made when the vintage allows it. For instance, this cuvée was only made in 2006 and 2009 for white wines and in 2007 and 2009 for red wines.

DISCUSSION WITH BERNARD VAN BERG²

A: Are there particular aspects of physical terroir that you think account for the differences in your wine, making it unique?

B: From the beginning, the Domaine has been based on the idea that the terroirs, which were the historical premises of Burgundy vineyards, today neglected by the INAO (official Administration in charge of the management of the appellations), have been suited for the creation of great wines and still are. The redevelopment of old vineyards involves an uncompromising discipline and an absolute will to create a harmony between the vines, natural vegetation, wildlife and the wine-maker. At the Domain, the wine is an artistic creation, the result of manual work but also of reflection, of listening, and of observation.

"Le Vin Le Plus Simplement" is a wine born from an idea, an innovating and intellectual conception, a fresh vision of a beverage that many people think they know. After having tested the greatest wines in the world for many years, I now believe that the geographical origin of wines established by the National Institute of Appellation of Origin INAO Institute does not always represent quality in real life. I therefore decided to create myself the wine I'd been dreaming of drinking. In other words, this breathtaking wine, pure and clean and easily drinkable, is the fruit of questioning modern concept of viticulture and winemaking. This means a re-examination of holy traditions and experimentation on a new level. I think a great wine begins with a perfect grape.

Furthermore, the terroir should be defined in terms of totality, in terms of terrain (field) but not in terms of plots, or unit. I have already refused to exploit plots inside some village appellations because there was no wildlife nor in left, nor in right, nor above, nor below.

A: Do you perceive any differences between old world and new world regarding terroirs/terrain?

B: In Europe overall, the concept of terrain/terroir is most of the time traced on regulations of Appellations. The phenomenon is especially remarkable in Burgundy, region where the price of the bottle and the appellation are strongly linked. In Bordeaux, the link between price and appellation is less sensitive. The awareness of the Château is more important than the appellation. Except for some noticeable exceptions such as Chateauneuf-du-Pape, Château Grillet or the Côtes-Roties, the wine of Southern France have a concept a terroir/terrain, which is closed of the one of the new world, which is the right terroir/terrain is the one that will lend themselves to make good wines irrespective of any administrative classification! California, Chile, South-Africa and New Zealand have perfectly understood that thousands of places are favorable to vine culture and that the element that will influence the most the final result is the work of wine-grower.

A: According to your great experience, how the following characteristics are influencing or not the terroir or the terrain if you prefer:

A: Site selection?

² A = Interviewer

B = Bernard van Berg, vigneron à Meursault

B: The most important decision is to choose the appropriate plot, terrain (field) that you will be supporting the implementation of your wine project. That's the reason for which I've used the term terrain and not terroir. A terrain or field should have wild life. Don't forget the wine is made in the vines where the man is working and not in the cellar.

A: What's a wild life terrain? What do you mean by soil?

B: For a profane, a plot is different from another because of its geographic location, altitude and sun exposure. Maybe also because of the chemical composition of the soil. Of course, those items are definitely important. But most of the time, the item that is forgotten is the life! In order to determine if a terrain has wildlife or not, it takes only a few seconds. Take a spade and make a hole and then, you will see the underground life. Without it, it is not worthwhile. The wildlife must be diversified. If one vegetal species is occupying the majority of the available space, it means that the terrain is unbalanced, which might be sometimes reversible but not always. If it is unbalanced, don't select this site. What's available for the vegetal life is also available for the animal life. Don't be afraid of vines' predators only if you have all of them. A vine with lots of rabbits would have nearly no berries left at the moment of the harvest but if a fox is part of the landscape, then it is balanced. It works in the same way for the insects. In other words, to make sure a terrain is wildlife, it is important that all the vegetal and animal species get enough space to blossom. To give you an idea, in the plot "En Busigny" in the village of Meursault, 50% of the area is planted with vines and 50% is at the disposal of the (animal and vegetal) wildlife, which represents a perfect balance.

A: what's your opinion regarding the viticulture, the canopy management and crop levels?

B: Once you have selected the plot, it is important to work on it without damaging wildlife because otherwise, what's has been developed above would be nonsense. Practically, it consists of refusing the use of a tractor that is crushing everything on its way but also the use of any products that might be destroying an actor of the natural chain, whether it is animal or vegetal. Once you know, what you should not do, you must discover what you would like to do. The vegetative cycle of the vine requires actions that must be followed in a specific sequence from the pruning till the harvest. Pruning is the only action where you have the most important freedom, which means it should be done between end-Autumn and early-Spring. In the past, it was not an issue since the vine was pruned when the sap was going up into the canes so that sap's drop was immediately cicatrizing the wound generated by the secator. I've adopted this method and the pruning is starting the first of March, if the weather conditions allow it. In viticulture, the term "if" is very important since the plans established by the wine-grower are only proposals; only the nature decides and you must learn it. Trying to impose a decision is against the natural phenomenon and leads to disastrous results.

Pruning cannot be questioned but it is different regarding the methods you can use to do so. In Burgundy, there are two modes of pruning that are generally used by the vast majority of wine-growers: Guyot and Cordon de Royat. Both methods allow a substantial volume of production and allow the crossing of tractors. Refusing the use of a tractor and not searching for volume of production opens new horizons. Everything becomes possible when you are looking for the qualitative level of the final product irrespective of the cost of production and if you are willing to accept the risk of losing the appellation to which the wine may pretend to belong to. Administration hate heretics who might question what is considered as established for some actors. Of course, the idea is not to impose to the vine a specific pruning method but

it is worthwhile to proceed by trials on small areas and notice if the vines accept or not what the vine-grower is trying to impose to it. While I'm pruning, I seat in front of each vine with a small stool. I have plots where I have 10 different kinds of pruning. Everything starts from the vines. In the village, the inhabitants say I know my vines with their name and first name!

Finally, during the harvest, all the technical actions must be done with a maximum of accuracy. Everything is important such as the position of a leave or even, a berry in pitiful state. They will have an impact on the final product. Nothing is innocent and everything is linked and the consequences are chained with each other. Of course, from time to time, you are exposed to some risks like frost and you might lose the whole crop. It happens to me in 2012 in the plot of the lieu-dit Le Fourneau. But I think that we cannot do anything accurate without extreme risks.

A: What about grape clone types?

B: There are clones that are yield-oriented and others that are quality-oriented... In the past, most vines aged more than 100 years. Nowadays, some vines (not everywhere of course) of more than 30 years are uprooted to replant more productive clones....

A: Climate/weather conditions?

B: We have no choice. We must adapt to the nature

A: Wild yeasts?

B: Only natural wild yeast in the estate!

A: What about the role of the human actor...you?

B: It is only important for the sequence of technical actions but nothing can be done without observing the nature as I explain before. However, a great bottle of wine will be strongly influenced by the human work.

A: What do you think about this statement: Whalen (2007) has called the terroir/terrain concept "polymorphous" What do you think about this statement?

Yes, there are three approaches:

1) the terrain/terroir is a place where the conditions (climate, soil, sun exposure, etc) are fulfilled (or not) to make a great quality wine

2°) The terrain/terroir is a lieudit (name of a plot) where the awareness of the appellation will guarantee an important sales price irrespective of the quality inside the bottle

3°) the terrain/terroir is a favored place that generates both quality and profitability

A: What do you think about this statement: White et al (2009) say that terroir/terrain has been elevated (excessively) to the level of "an analytical explanation for the quality of certain wines ..."?

Based on scientific formula, it is an economic operation which sustains the economic value of the terrain/terroir since it tends to demonstrate that without those formulas, the terroir/terrain is not making great wines. In other words, it gives a pseudoscientific basis, which can be secure for the consumer who cannot trust its own judgment.

A: What do you think about this statement: Ballantyne (2011) has claimed a distinction between technical and social aspects of terroir/terrain?

In the regions where the appellation is strongly determining the final price of a wine bottle, the work made in the vines like in the winery will be different especially because of the appellations... The vines planted on terrain/terroir with appellation with low awareness will not have the same focus as those planted in premier or grand cru. Since the first ones are sold most often with lower prices, the winegrowers will require the vines to produce more than he would require for the appellations with higher awareness or higher price. It is human but it is also supporting that the wine with lower prices will be definitely not as good as the other ones. Another issue is the price of a good barrel. A wine with limited potential will never see such a barrel.

For the social aspects of the relationship man/Terrain/terroir, it is quite delicate. Men don't have the same skills, motivations and same genius. The owner of a wine estate knows in advance what each staff member will do and the least skillful people will certainly never go to the most prestigious plots!

A: What do you think about the link between Terroir/terrain and history?

B: The profession of wine-grower is existing for a long time and each generation has contributed to build what is known nowadays as viticulture and vinification. The major issue is that there is a little in common between the starting point and the point of arrival. In imperial Roma, offering a wine of 100 years old to his guests was considered as being sophisticated. Surprisingly, this wine was white. Pre-oxidation was therefore not an issue at that time! In the 18th century, the red wines of Burgundy were supposed to be the least colored as possible. The Dukes of Burgundy were ignoring the vinification per plot. All the grapes were poured on the same press without knowing their geographic origin or their grape variety. So, at that time, only one denomination for the Duchy of Burgundy: Vin de Beaune. Those examples are not exhaustive but they tend to demonstrate that the wine concept has evolved based on economic, political, religious but also fashionable realities. The creative idea of the "Vin le Plus Simplement" is to get rid of all those additions in order to come back to the original principle: make wines for the greatest pleasure of men and not a terroir wine or a varietal wine but only wine. In other words, make the best wine as possible irrespective of the economic, commercial, even familial constraints without bankers or board to satisfy. One starting point: the vine; one purpose the wine and in between: some reflection, some observation and of course, a sequence of technical acts. "Le Vin le Plus Simplement" is the fruit of a handmade work dedicated to reflection.

A: What do you think about the link between terroir or terrain and authenticity?

B: The authenticity is again linked to the respect of the wildlife of the terrain. Therefore, a wine is authentic when there are no modification of the natural soil, no addition of fertilizers of any type, no use of insecticides or herbicides, no tractor, no mechanic harvest and only use of products intended for Organic Agriculture. Just to give you an idea, in the mid-19th century,

an average yield per ha was around 750 liters while today, the average went up to 5'600 liters per ha. Another dimension is the lack of physical contact between the wine-grower and his wine during the foulage or crush. Nowadays, the crush is mainly mechanized. Finally, to make sure the natural fermentation is successful, the berries should be ripe and healthy. Regarding the ripeness, it is just a matter of patience: wait until the sun is doing the job! However, some wine-growers refuse to wait and harvest grapes with low-sugar content not to decrease the yield. Per day, the loss is around 3%, which means if a wine-grower (who is producing 56hl on an average estate of 10 ha) is waiting 8 days more, he is losing 16'147 bottles. That's the reason for which, a lot of wine-growers are harvesting when the grapes are not ripe enough and then, they correct it through chaptalization (adding of sugar).

B. What do you think about the Appellations' system?

The principle itself is not working since an appellation like Clos de Vougeot is subdivided between more than 70 owners and so, there are more than 70 completely different wines. Some are outstanding; some are less...Same thing for Montrachet, or Corton, etc.

Another example of the non-existence of obvious typicity of terrains: the fraud on appellations are always found by the Custom Office and never by the tasting committees (called Comité d'Agrément) who give the right for a tasted wine to be part of an appellation or not.

We have all tasted wines from prestigious appellations that do not meet our expectations. Therefore, we should wonder why INAO has validated this classification, which was one day matching with the reality.

One remark: before the appellations were established in Burgundy in 1935, there were two different professions: on the one hand, the vine-growers who were not making wine (only growing for the vast majority of them), and on the other hand, the négociants who were making the vinification, the maturation and the sales. The wine-grower had no relationship with the client or the consumers. The power was in the hands of the négoce.

So, there was thousands of wine-growers but only a few wine-makers who were supposed to deliver to their clients wines that were meeting their expectations: Chambertin should be dark and powerful with a huge potential ageing; Volnay had to be lace-like and a Pommard had to be paired with venison. To do so, the wine-makers could do what they want (blend of vintages, blend of different plots, etc.) in order to fulfill their clients' needs.

In the 30's, Charles Bouchard, Chairman of the Union of Négociants of Beaune, was against the introduction of AOC system because he was afraid of the overall decrease of quality. But he couldn't stop the machine. From 1935, some undrinkable wines associated with prestigious plots' names were released on the market even if the administration has tried to reduce those practices. After WWII, some wine-growers have decided to sell their wines themselves, which was a real revolution and also, the beginning of a struggle between "wine-growers/winemakers" and the négociants. Some decades later, the vast majority of winegrowers are bottling themselves and sell partly or totally their production. The amount of winemakers moves from a small one to a large one very quickly. Some of them were outstanding winemakers while some others were less...Each wine grower chose his work method both in the vines and in the cellar. Each wine-grower became a brand.

B. Do you think that terroir or terrain is linked to brand as a marketing dimension?

Each wine-grower became a brand and each wine produced in the same appellation of their neighbors was different. So, time of typicity and unicity was over. I fully understand that each wine-grower wants to propose its own interpretation of a specific appellation but the side-effect for me is what you raise in your question. The appellation itself is the first item that will be used to determine the price of a bottle of wine. The organoleptic qualities or even the theoretical typicity of the appellation are far away. Therefore, some uniformed consumers buy an appellation, instead of a wine. For example, a regional wine will be around 7 euros; a village appellation around 18 euros; a first growth between 25 and 40 euros and a Grand Cru above 50 euros, whether it is good or not.

It is said that I make good wines on small terroirs! It is nonsense. When a wine is good, it means the terroir/terrain is good as well. We don't make great wines anywhere. I make great wines outside the areas classified by the Administration but not on terrains that are not conducive to the birth of great wines.

As a conclusion, I'm quite jealous about Adam (in the Bible). He is not born, he is not a natural consequence of what we know, he appears. He doesn't know anything, he looks, he touches and he discovers. He has no parents, no masters who can teach him what he is supposed to do or to love or not to love. He ignores the religion, politics or the concept of State. Even the ownership! He must reinvent everything. I don't want to depreciate the Culture but I believe that it is good for the mankind to have Adam's eye on his life and his environment.

DISCUSSION

Unlike many people in Burgundy, Bernard van Berg, an adopted, iconoclastic Burgundian, considers that his role comprises expressing the terroir of each individual vineyard and letting nature determine the character of wine as much as possible. He is not referring to traditions or the "local, loyal and steady customs" that Burgundians cherish. He also stresses the fact that the grower's energy, dedication, hard work and sensible decisions concerning viticulture and wine-making are key factors of quality. Without man, there would be no terroir! Paradoxically, the constraints he imposes on himself is often stricter than those of the AOC system...

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Anything but Typical: How Consumers Evaluate Origin Products Based on Their Cues

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◦*Purpose:* A recent stream of research has focused on typicality associations – those that bring origins and products together. Most of the research has focused on typical products but atypical products have received very little attention, even though they are more and more present on the market. Yet to be reviewed, the relationship between intrinsic and extrinsic product cues and product evaluations is examined in this paper for typical and atypical origin products.

◦*Design/methodology/approach:* Wine was used as the stimulus and consumer evaluations of typical and atypical products were reviewed. Consumers were also segmented based on their knowledge of the product category. 370 French respondents participated in an online questionnaire regarding the product cues they found most important depending on if the wine was from the new world or the old world.

◦*Findings:* The results show that extrinsic cues are most important in the evaluation of origin products, contrary to what prior research would have suggested. As well, an overview of consumer evaluations of atypical origin products confirms the CoO-ELM model proposed by Bloemer, Brijs and Kasper (2009) but that typical products are evaluated differently, and this depending on their level of knowledge.

◦*Practical implications:* Managers who work with origin products can use these results to their advantage as long as they understand the perception of their product in the marketplace, either as typical or atypical.

Key words: origin, typicality, wine, France

1. INTRODUCTION

A significant body of literature focuses on how products are evaluated and how consumers categorize and subsequently evaluate products. Products can be evaluated holistically (Bloch 1995) or they can also be evaluated in terms of the extrinsic (central) and intrinsic (peripheral) product characteristics or cues. Place designations play an important role in shaping perceptions of products (Spielmann and Babin 2011; Viot and Passebois-Ducros 2010). This has led to origin-product associations, or perceptions of typicality - the degree to which a product is perceived as representative of its origin (Tseng and Balabanis 2011).

While extant research provides many guidelines for product design and packaging (Garber 1995; Orth and Malkewitz 2008) the literature is sparse on how intrinsic and extrinsic product features serve to reinforce or attenuate origin-product associations. Rather, most of the literature focuses on how country name and brand name influence product evaluations (Teas and Agrawal 2000), or how brand name and origin are often confused, with brand often usurping origin or vice versa (Usunier 2011). Certainly, the ability to evaluate origin product features will depend as well on the other types of product cues available (e.g. product content, packaging features), as well as the individual features of the consumers such as prior knowledge and experience (Bloemer et al. 2009). As well, globalization has created emerging economies capable of producing quality products, but due to their novelty on the market, these products may face a typicality bias. This paper focuses on product features and their ability to dis/confirm typicality associations. It also examines the ability or motivation of consumers to focus on certain product features in concordance to origin.

1. LITERATURE REVIEW

1.1. Origin Typicality

Product ethnicity or nationality perceptions help consumers make associations between product categories and origins (Usunier and Cestre 2007). Due to their production capacities, countries can encourage specific images, which in turn means that specific product categories become stereotypically associated with certain origins (Kotler and Gertner 2002; Roth and Romeo 1992). Consumers then categorize these products as being country typical, in that the product category represents the country's products (e.g. wine is from France or the French make wine) (Loken and Ward 1990; Tseng and Balabanis 2011).

1.2. Product Cues

Consumers analyse origin products using the numerous physical and non-physical product features. Physical features are also referred to as peripheral cues, those that are intrinsic, tangible and often more obvious. Intrinsic cues allow consumers to confirm their presence with their senses. Product shape, touch, scent and sound all contribute to perceptions of reality and in consequence are easier to evaluate. However these are product features that cannot be changed without altering the physical characteristics of the overall product (Olsen and Jacoby 1972).

Non-physical features are central and extrinsic such as brand name, symbols used on the packaging, label details on the packaging, advertising, price, guarantees, warranties, etc. as signals (Bearden and Shimp 1982; Han and Terpstra 1988; Steenkamp 1990). Research has found that country-level origin is an extrinsic product cue, similar to price, brand or other packaging cues (Teas and Agrawal 2000; Watson and Wright 2000). In this sense, origin is evaluated as a label, Made in France, rather than as a source of physical resources required for the product.

1.3 Consumer Evaluations of Origin Products

How consumers evaluate origin products will depend on numerous features, such as prior

knowledge and experience tendencies. Much research has focused on consumers' prior knowledge of origin specific information (Bloemer et al. 2009; Gürhan-Canli and Maheswaran 2000; Han 1989). Globally the results show that origin knowledge increases confidence in the evaluation of origin products. This confidence then influences the way consumers evaluate origin products and the features they place more weight on (Pecotich and Ward 2007).

Specifically, origin can act as a halo by influencing beliefs about the product and hence attitudes toward origin-products (Han 1989). When consumers use one product cue to evaluate origin products, the halo effect is observed. Just like a brand name, origin can become a shorthand cue for product perceptions (Zeithaml 1988). Thus origin becomes a proxy indicator - this is often the case when consumers have little knowledge and experience of the product (Laroche et al. 2005). Alternatively, when consumers have experience or have been exposed to products from a certain origin, they use their accumulated information to confirm beliefs about an origin product (Han 1989). The summary construct occurs when consumers amalgamate product impressions to have a more holistic attitude toward the targeted product. They do so as a means to limit cognitive effort and to simplify evaluations (Han 1989). Finally consumers can evaluate the origin and other product cues concurrently. This interaction between beliefs and product information, entitled the default heuristic, leads to more cognitive processing and thus a more detailed evaluation of the origin product (Bloemer et al. 2009; Manrai et al. 1998).

2. CONCEPTUAL FRAMEWORK

Bloemer et al. (2009) propose that prior knowledge of the product category moderates the evaluation of origin products but they do not specify whether the evaluative process differs between typical and atypical origin products. Another stream of research that reviews country typicality of products per origin considers neither product cues nor level of consumer knowledge (Tseng and Balabanis 2011). It could be assumed that the use of simple heuristics for origin products would be even more prevalent for amateur rather than knowledgeable consumers, as stated by Bloemer et al. (2009). However this past research does not clarify *which* product features would figure in either simple or complex evaluations.

RQ: Does typicality of a product influence the choice of product cues (intrinsic/extrinsic) used in the evaluation of origin products, and does the choice depend on the type of consumer segment?

4. METHODOLOGY

Wine was selected as the main product category for this research project, because as a product category it can be segmented as having a typical and atypical origin. Much of the media attention regarding wine has often focused on the duality between old world and new world wines: “‘old world’ refers to the traditional winegrowing regions of Europe, while ‘new world’ refers to everything else” (www.winespectator.com). Furthermore, as a product category, wines are always strongly linked to their origin (Guidry et al. 2009) and origin at the country level is a key evaluative feature for wines (Atkin and Johnson 2010; Balestrini and Gamble 2006).

A list of intrinsic and extrinsic product cues was devised for wine using the definition from Olsen and Jacoby (1972). The list consisted of the features most often discussed in the media as well as those most often used by wine experts. An intrinsic product cue for wine was defined as one that consumers could touch and affected product performance. Extrinsic product cues for wine were defined as those pertaining to the origin as well as features related to the packaging and brand (Han 1989; Wall, Liefeld and Heslop 1991).

A Master of Wine as well as three marketing researchers verified the list for validity and relevance. Extrinsic features were: brand, origin, label, back label, corkage, bottle shape, and graphics. Intrinsic features were: grape variety, appellation, vintage, producer and organic.

Price was specifically excluded because not all outlets practice the same prices for wine (i.e. wines in supermarkets may be less expensive than in specialty stores). As such, this extrinsic cue was determined as being too biased, and was excluded. Wine type (i.e. red, white, sparkling) was also excluded because grape variety is a better and more accurate indicator of wine quality than colour and because prices will also fluctuate based on wine type and regions.

4.1. Questionnaire

Survey sampling with a questionnaire was used. The beginning of the questionnaire asked respondents an open-ended question about what they perceived to be the differences between old and new world wines. Respondents then were asked to cite examples of new and old world countries. The questionnaire then randomly presented two blocks – one asking questions about new world wines and the other about old world wines. Respondents answered both blocks. The multiple product cues of wines were placed in a matrix-type question where respondents answered on a five-point Likert scale ranging from not at all important to very important. An attitudinal measure with a five-point Likert scale was created, including these items: “I take pleasure in drinking these wines”, “I like the taste of these wines” and “I like to discover these wines”. A cognitive measure, entitled originality, was also created using a five-point Likert scale and included the following statements: “These wines have a sense of place”, “These wines are complex”, “These wines are structured”, “These wines are original”, “These wines are typical”, “These wines have specific aromas”. An open-ended willing-to-pay for these types of wines item was also included in order to measure value perceptions. Finally, respondents assessed their own level self of wine knowledge (novice, intermediary and expert) and answered wine hobby questions (e.g. do you read wine magazines, do you participate in wine clubs, etc.) and socio-demographic questions.

4.2. Sample

France was selected as the sampling country of choice as wine is typically associated with this country (Bastien et al. 2011). In consequence, French consumers would be more likely to perceive wine as typical when it comes from France and neighbouring countries in Europe. The questionnaire was sent out to a Qualtrics sample of 320 French citizens over the age of 18. The same questionnaire was sent out to 500 randomly selected readers of a professional wine web site (www.vitisphere.com). A total of 395 questionnaires were returned (48% completion rate) and 370 were retained after removing incomplete responses. Respondents were 58% men, 66% were between 18 and 50 years old with over 50% having studied in higher education. Thirteen per cent work in the wine industry.

In terms of wine statistics, the sample consumed an average of 1.9 bottles of wine per week per household and spent an average of €18.89 per bottle. Over 97% of the sample has already consumed old world wines and 69.5% have consumed new world wines. Chile, Argentina, the United States, Australia and New Zealand are the most cited new world countries whereas France, Italy, Spain and Germany are the most cited old world countries. Level of knowledge was established by using the self-measure and then compared with the wine hobby questions. Consumers were split up into three categories: 19% low knowledge (those who rated themselves as not knowledgeable and who participated in two or fewer wine activities), 63% medium knowledge (those who participated in three wine related activities) and 18% high knowledge (those who stated they were experts and participated in at least four wine related activities).

4.3 Results

An overview of the respondents’ verbatim description of new versus old world wines shows that they have a clear understanding that these two categories are distinct. Measure reliabilities for the measures were good for both the old world and new world blocks

(Cronbach alphas ranging from .788 to .865). Stepwise regressions were conducted using the product cues with the dependent variables of attitude and originality for both typical and atypical products. For all the regressions, 70% of the sample was used and then the regressions were retested with 30% of the sample in order to ensure that the results were generalizable. Results presented here are for the entire sample. The variables were also checked for collinearity and the condition indexes were all under the limit of 15. These regressions were conducted depending on the level of knowledge level of the respondents. Appendix A illustrates the findings.

For typical products, low knowledge consumers focus on product cues such as brand, label, appellation, country and grape. Whereas four product cues positively influence attitude and originality perceptions, brand negatively impacts willingness-to-pay. For medium knowledge consumers, grape is important in determining attitudes and originality. Country and label also influence attitudes whereas vintage reinforces originality perceptions. No product cues are predictive of willingness-to-pay. High knowledge consumers use few cues in their evaluation of typical products: grape and country. For atypical products, low knowledge consumers use only one product cue for all types of evaluations: brand. Medium knowledge consumers use four key extrinsic product cues when evaluating atypical origin products: label and bottle shape as well as country and winemaker. These product cues are only relevant in determining attitudes and originality perceptions. Medium and high knowledge consumers do not use product cues in order to set price expectations for atypical products. High knowledge consumers do, however, use brand and grape to positively shape their attitudes whereas graphics negatively influence their attitudes. In terms of originality, brand is the single most important product cue.

5. DISCUSSION

The results presented in this paper showcase some interesting findings. The first set pertains to the use of product cues for origin products. Prior research suggests that intrinsic cues are most influential for attitudes (Kozup et al. 2001; Petty and Cacioppo 1986). Our results show that this relationship does not apply to origin products – both typical and atypical origin products are evaluated using most extrinsic features.

The second set of results pertains to how the level of knowledge of consumers influences their evaluations of origin products. For low knowledge consumers, multiple product cues, mostly extrinsic, seem to be used. These consumers may engage in a progressive analysis: a wine from Burgundy would be from France and would be pinot noir and would be from a specific brand as outlined on the label, indicating a default heuristic to evaluate a product they are familiar with. For atypical products however, the halo effect is in full evidence by focusing on the brand - either it is a surrogate indicator of origin or because consumers simply do not have enough knowledge in order to accurately disentangle brand from origin (Usunier 2011; Zeithaml 1988).

For medium knowledge consumers, typical products are evaluated using a blend of extrinsic and intrinsic product cues. When consumers are familiar with products, they have a certain proximity to them. In the case of the stimulus used, one could argue that French consumers would have a good understanding of what certain vintages yield, and this for most old world wines. Also, the increased level of experience of a moderate knowledge consumer is likely to explain why they value grape - experience likely helps them isolate different varietal taste profiles that they like, and thus seek them out. As for atypical products, moderate knowledge consumers value country and label as for typical products. However they focus also on bottle shape and winemaker. Bottle shape may be a cue of the extrinsic quality of the wine - reliance on product packaging for unfamiliar products helps augment confidence in product evaluations (Underwood and Klein 2002). Specifically for wine, the shape of the bottle may be

a way for consumers to categorize unknown products into schemas they are more familiar with (Loken and Ward 1990; Mandler 1982; Meyers-Levy and Tybout 1989). If it has the shape of Bordeaux wine bottles, it might be close to the style of Bordeaux wines. Medium knowledge consumers use multiple cues to go beyond their knowledge set, and probably engage in default heuristics.

Finally, expert consumers use very few intrinsic features (versus extrinsic features) when evaluating origin products. For both typical and atypical products, these consumers rely mostly on extrinsic product cues for all of their evaluations. Specifically, they use country for typical products whereas they use brand for atypical products. For both typical and atypical products, experts use a summary construct; the difference lies in the cue that sets off this process. Experts use country for typical products perhaps because they have a clearer understanding of how old world countries will produce different wines. For example, they know how and why French cabernet sauvignon wines are not the same as Italian cabernet sauvignon wines. Experts are likely to make origin-product associations for typical products (Tseng and Balabanis 2011). The origin supports the association and is confirmed by a few other product features. However, atypical products have an origin that has less meaning and established associations, and in consequence, the origin becomes represented by specific brands (Gabriel and Urien 2006). When faced with atypical products, experts first focus on brand as a cue, thus making brand-product associations (Thakor and Kohli 1996).

5.1. Managerial Implications

Managers who work with origin products can use these results to their advantage as long as they understand the perception of their product in the marketplace, either as typical or atypical. What may be perceived as typical in one country may not be in another. Once this is established, marketers should emphasize the product cues that are most likely to augment attitudes and value perceptions. Globally it appears that extrinsic cues are most relevant, certainly because they allow consumers to establish their own subjective notion of product value. Although marketers should be aware that when products are perceived as typical, consumers are likely to use more product features than when they are perceived as atypical. In consequence, product cues should be coherent in transmitting a homogenous product image. In the case where the product is atypical, the use of origin and brand is prevalent by consumers. As such, marketers should work to capture positive origin stereotypes and include them in their branding in order for consumers to properly identify the origin and to encourage positive country-brand-product associations.

As for accounting for the differences between low, medium and high knowledge consumers, it is without a doubt that distribution points, prices and types of promotion should be tailored in consequence to the desired target market. When the product is perceived as typical, low and medium knowledge consumers use many product cues. When the product is atypical, medium knowledge consumers continue to use multiple features that help boost their evaluative confidence. However low knowledge consumers need to be reassured by one cue: brand. As for expert consumers, managers should reinforce the country-product association when the product is typical and the brand-country-product when the product is atypical would be recommended.

5.2. Limitations and Future Research

It would be fair to state that a replication study should be conducted in other European countries such as Germany or Italy. A second limitation would be that although most obvious product cues were tested, there are many more that are present on wine packaging.

Appendix A: Typical X Knowledge Regression Results

			Product cues	Beta (t-score)	F Stat	
Low Knowledge	Typical	WTP	Brand	-.364 (3.126 ^b)	9.771 ^b	
		Affective-attitude	Label	.369 (3.477 ^a)	12.923 ^a	
			Brand	.239 (2.189 ^a)		
	Originality	Grape	Appellation	.231 (2.173 ^b)	14.181 ^a	
			Country	.279 (2.511 ^b)		
			Label	.217 (2.074 ^b)		
Atypical	WTP	Brand	.654 (3.560 ^b)	12.677 ^b		
	Affective-attitude	Brand	.574 (2.889 ^b)	8.349 ^b		
		Originality	Brand		.512 (2.460 ^b)	6.050 ^b
Medium Knowledge	Typical	WTP	-	-	-	
		Affective-attitude	Country	.394 (5.866 ^a)	30.516 ^a	
			Grape	.181 (2.680 ^b)		
	Originality	Label	.128 (2.191 ^b)	22.695 ^a		
		Vintage	.293 (4.028 ^a)			
	Atypical	Grape	WTP	-	-	-
Affective-attitude			Country	.277 (3.768 ^a)	15.265 ^a	
			Label	.214 (2.957 ^b)		
Originality	Winemaker	.170 (2.439 ^b)	16.183 ^a			
	Country	.306 (4.406 ^a)				
High Knowledge	Typical	Bottle shape	WTP	-	-	
			Affective-attitude	Country	.346 (2.809 ^b)	7.892 ^b
				Grape	.296 (2.393 ^b)	
	Originality	Winemaker	Country	.322 (2.599 ^b)	10.448 ^a	
			Grape	.296 (2.393 ^b)		
			Winemaker	.184 (2.588 ^b)		
Atypical	Graphics	WTP	-	-	-	
		Affective-attitude	Brand	.503 (3.700 ^a)	8.065 ^a	
			Grape	.398 (3.299 ^b)		
Originality	Brand	-.288 (2.040 ^b)	8.754 ^b			

a = $p < .001$, *b* = $p < .05$

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**Terroir and wine differentiation.
A cross-case analysis on French and Italian wine producers' perceptions**

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◦**Purpose:** The main aim of this paper is to provide a clear understanding of wine producers' perceptions about terroir and its potentialities as a differentiation tool. Additionally, we explored the role of local wine associations and policy makers in the creation and valorization of place image through terroir.

◦**Design/methodology/approach:** We realized a cross-case analysis based on two wine areas respectively located in France and Italy. Specifically, we identified 11 wineries in the Pic Saint-Loup and 15 wineries in the Sannio Valley and conducted semi-structured interviews with owners and managers in order to obtain in-depth information.

◦**Findings:** In wine producers' perspective, terroir is a complex concept with multiple facets, whose relative importance changes depending on the context in which its social construction takes place and the role of institutional actors in the improvement of place image and reputation.

Key words: terroir, differentiation, wine producers, place of origin

1. INTRODUCTION

In recent decades the global wine market has become more and more crowded and customers have now plenty of choice along with a huge amount of information to make their purchase decision. In this changing scenario, product differentiation emerges as a key marketing strategy to distinguish the company's offering from the plethora of competitors (Porter, 1980). A number of dimensions can be used in order to add meaningful and valued differences to a company's products. Specifically, along with physical product features traditionally used to differentiate a company's products from competitors, many alternative perspectives have emerged highlighting the relevance of a marginal differentiation based on psychological and symbolic elements (Kotler and Armstrong, 2001). Indeed, as noted by Solomon (1983), products possess symbolic qualities that are often the determinants of customer's evaluation and choice; therefore, several perceptual dimensions can be used by firms in addition to physical and tangible product attributes in order to address the challenges of differentiation.

As a complex product whose consumption is strongly affected by customer's experiential sphere, wine offers to producers several differentiation tools relying both on physical and symbolic dimensions. In this direction, place of origin emerges as a crucial element on which to build a sustainable competitive advantage, since it not only gives unique tangible characteristics to wine, but as an indicator of quality it also generates subjective outcomes that are able to drive consumers' preferences and choice behaviors. As highlighted by the flourishing literature on wine consumption behavior (Lockshin et al., 1997; Orth et al., 2005; Charters and Pettigrew, 2006; Lockshin et al., 2006), a higher level of consumers' knowledge generally determines a higher level of involvement. More specifically, since the reputation of a place is commonly associated with the presumed quality of its wines, geographic origin takes on a central importance among those extrinsic cues that consumers rely on when evaluating a product (Johnson and Bruwer, 2007a).

The growing importance gained by the link existing between a wine and its land of origin (Thode and Maskulka, 1998) determined a renewed interest towards "terroir", a well-known concept originated in France in the middle of the 19th century and used still today to link products, especially agricultural ones, to a specific place (Spielmann and Gélinas-Chebat, 2012). In the last years, a relevant amount of studies in the broad field of wine research contributed to uncover the multiple dimensions of the "terroir" concept, including not only the environmental conditions in which grapes are grown, but also all the human factors which directly or indirectly play an influence on the characteristics of "terroir wines" (Morlat, 1989; Vaudour, 2001, 2002; Deloire et al., 2005; Charters, 2006; Fort and Fort, 2006; Van Leewen and Seguin, 2006; Spielmann and Charters, 2013). Nevertheless, a considerable ambiguity still persists around the concept of terroir that, despite the extensive use made of this term in the wine business field, to date does not have a clear definition common to the various user groups (Spielmann and Gélinat-Chebat, 2012). Since many scholars emphasized the complex nature of terroir as a social construct resulting from interactions and communication flows among different user categories (Ballantyne, 2011), more empirical efforts are needed in order to investigate in depth the perceptions and interpretations of those subjects that are likely to influence the link between a wine and the place it originates from.

Therefore, the present paper explores the concept of terroir by focusing on wine producers'

perspective, with the main aim of understanding which values they associate to it as well as whether and how they use it for marketing their products and building a competitive advantage. To this aim, we realized a cross-case analysis based on two wine areas respectively located in France and Italy, in search for elements able to shed light on wine producers' notion of terroir as a tool for gaining a successful positioning within consumers' minds, relying on the comparative brand strength of a specific place. Indeed, even if the examined producers are all located in two of the Old World countries where the wine quality system based on territorial characteristics originally developed, the analyzed areas are both not recognized as top wine regions compared to other national ones (such as Bordeaux or Bourgogne in France and Chianti or Barolo in Italy). As noted by Johnson and Bruwer (2007), regions within a country also have a significant influence on quality perceptions among consumers, therefore a perfect consciousness of the terroir potentialities is strictly due by wine producers in order to attract consumers' attention. Based on this, our study provides a clear understanding of wine producers' point of view but also highlights the role of local wine associations and policy makers in the creation and valorization of place image through terroir.

2. THEORETICAL BACKGROUND

The concept of "terroir" captured the power of a quality land that has been recently rediscovered as an important tool for assigning uniqueness to local products. Quite difficult to translate in languages other than French, terroir has gained central relevance in the wine literature, even if its definition is still characterized by a considerable ambiguity. In the field of viticulture, terroir has been defined as «a region which is related to a particular area with a distinct quality of grapes and their wines» (Vaudour, 2002). Such definition encapsulates the many facets of terroir that goes far beyond the physical environment in which the grapes are grown as it also includes the social and cultural features emerging from the human intervention required to express the quality of a specific place (Spielmann and Gèlinas-Chebat, 2012).

The multidimensional nature of terroir is widely recognized in numerous studies, that generally describe this concept as the result of the interactions taking place among several factors. Vaudour (2002) expressed the central core of the terroir notion in terms of uniqueness, origin, persistence, specificity and personality and related such characteristics to the facets of "nutriment", "space", "slogan" and "conscience", respectively representing the agronomical and technological land properties, the socio-economic context, the ethnological, sociological and cultural meanings of a geographical place and the most recent aspects related to marketing, advertising and identity. The same study also highlighted the main difficulties related to the spatial modeling of terroir-units along with the importance of geographical information systems (GIS), which play a significant role in defining precisely scale of analysis, otherwise ranging from local to broader areas. Similarly, Deloire et al. (2005) focused on technical and practical elements of terroir, along with functional aspects related to this concept, but also highlighted the importance of adapting viticultural practices and winemaking techniques to specific terroirs, depending on the products desired by the market. Another perspective, also falling in the field of viticulture, is offered by Van Leewen and Seguin (2006), who emphasized that the difficulty to study terroir on a scientific base is mainly due to the large number of factors involved, encompassing not only climate, soil and cultivar but also human

factors, such as history and socio-economics along with viticultural and oenological techniques, since no vineyard would exist in nature without mankind activities.

Other studies focused on the relationship between labels of origin and terroir, drawing attention on the legal protection mechanisms available for wines produced in specific areas and with specific grape varieties, following precise production systems (Barham, 2003). In this perspective, labels of origin such as the French system of “*Appellation d’Origine Contrôlée*” (French top wine quality denomination) and the *geographical indication* system appear as an application of the terroir concept, aimed not only to guarantee and communicate the complete traceability of agricultural products typical of specific places but also to promote innovative forms of rural development.

In a managerial perspective, terroir earned notable research attention and its multidimensional nature was conceptually described in several interesting contributions (Charters, 2006; Fort and Fort, 2006) highlighting the interdependence of environmental and human factors in the construction of a regional brand image that is mainly the result of a social construction process (Charters, 2010; Ballantyne, 2011). In the last years, significant empirical evidence was provided regarding terroir as a wine choice factor. A valuable contribution in this direction was offered by Johnson and Bruwer (2007), which empirically proved the existence of a relationship between regional brand image of selected California wine areas and consumers’ quality perceptions. Later on (2010), the two authors examined the relationship between different levels of place-based marketing strategies implemented by Californian wineries and consumers’ behavior. Likewise, the recent work by Spielmann and Charter (2013) was aimed to empirically test the multidimensional nature of terroir and its relationship with authenticity.

As previously mentioned, despite the considerable amount of academic work realized to investigate the meaning of terroir and its impact on consumers’ dynamics, less empirical research has been devoted to provide a clear definition of the concept, encompassing the different perspectives of others actors influencing its construction. Yet, a fundamental contribution in this sense has been recently given by Spielmann and Gélinas-Chebat (2012), that carried out an empirical investigation of the French wine industry, aimed at examining the definition of terroir based on the perspectives of different users of the term (such as producers, vendors, high and low involvement consumers) and uncovering perceptual differences in the meanings they attribute to it. As stated by the authors, their research was just the first empirical step in defining the complex concept of terroir, whose complete and congruent understanding is still missing though strictly necessary to define effective and coordinated strategies for marketing wines which have their profound roots in the place of origin. Specifically, empirical works focused on an in-depth understanding of the meaning that wine producers give to terroir is to a large extent still lacking, even if many authors recognized their central role in shaping the human component of the concept through their know-how, “savoir-faire”, traditions and social relationships (Vaudour, 2002).

Our work addresses this research need, trying to identify and clarify the gray areas of wine producers’ interpretation of terroir in two distinct wine areas, in order to gain useful insights on how to use the concept for consolidating and communicating the uniqueness of a place, in collaboration with all the local actors interested to its success.

3. METHOD

In order to reach the main aims of this research, we used a multiple case-study approach (Eisenhardt, 1989; Yin, 1994), with an in-depth analysis of several wineries both in the Pic Saint-Loup area, in France, and the Sannio Valley, in Italy. The selection of wineries to be included in this study followed the main criterion of ease of access to them. Prior research experience and our personal networks allowed us to identify 15 wineries in the Sannio Valley and 11 wineries in the Pic Saint-Loup area available to be included in the study. In order to highlight similarities and dissonances through the cases and to support the understanding of the phenomenon, we tried to identify wineries of different typologies, concerning their age, size and performance. Table 1 provides a brief description of the analyzed wineries in the Sannio Valley and Table 2 of those in the Pic Saint-Loup area.

We used both primary and secondary data for the case study research. Primary data were collected through direct observation and, above all, through semi-structured interviews with owners and managers. We conducted face-to-face interviews that were recorded and transcribed. Then, we conducted shorter follow-up interviews by phone and email to clarify and validate issues. A shared protocol interview was used to assure that all the topics relevant to the aims of the research were thoroughly covered in both the cases. It was not a real questionnaire, but just an outline of orienting questions focused on entrepreneurs' perceptions about terroir, firms' marketing strategies and collective activities to foster local wineries' competitiveness. Considering the inductive nature of the study, such topics were discussed in a random order and unplanned topics emerged during the discussions. The interviews in the Pic Saint-Loup area lasted from 60 to 90 minutes. On the whole, transcripts were about 82 pages of text in length. The interviews in the Sannio Valley lasted from 35 to 80 minutes. In this case, transcripts were about 88 pages of text in length.

Additional and secondary information were collected through internal documents provided by the firms (reports, institutional presentations and so on) and through the firms' websites. More information about the area and the collective actions undertaken over the years by the wine producers and/or the policymakers were collected through the websites of local institutions and organizations (e.g. the Municipality of the single towns, the trade associations and wine unions, like "Sannio Consorzio Tutela Vini" or "Les Vignerons du Pic Saint Loup" and so on).

We used the transcriptions of the in-depth interviews and the other secondary data, beside the notes taken during the visits, in order to describe the perceptions about terroir, its actual role in the marketing strategies of the wineries and the potentialities it may have for their future competitiveness. In order to do that, after all the text had been transcribed we iteratively cycled through the data, aiming at classifying and coding them. Then a cross-case analysis allowed us to identify similarities and dissonances.

Tab. 1 – Description of the analyzed wineries in the Sannio Valley

Name	Town	Established	Bottles	Number of references	Top product lines
<i>Aia dei Colombi</i>	GuardiaSanframondi	2002	60,000	6	<i>Vignasuprema - Colle dell'Aia</i>
<i>Antica Masseria Venditti</i>	Castelvenere	1595	60,000	8	<i>Bacàlat - Bosco Caldaia</i>
<i>Cantina del Taburno</i>	Foglianise	1972	1,000,000	20	<i>Bue Apis</i>
<i>Cantina di Solopaca</i>	Solopaca	1966	2,000,000	53	<i>Selezione Oro</i>
<i>Cooperativa La Guardiense</i>	Guardia Sanframondi	1960	3,000,000	22	<i>Janare Cru</i>
<i>Corte Normanna</i>	Guardia Sanframondi	1984	100,000	7	<i>Tre Pietre</i>
<i>Fattoria Ciabrelli</i>	Castelvenere	1976	40,000	5	<i>Jenn'emois - Alexia</i>
<i>Fontanavecchia</i>	Torrecuso	1953	180,000	13	<i>Grave Mora - Facetus</i>
<i>La Fortezza</i>	Torrecuso	2010	350,000	16	<i>Linea Classica</i>
<i>La Vinicola Del Vecchio</i>	Telese Terme	1950	1,000,000	10	<i>Linea Tiffany</i>
<i>Ocone</i>	Ponte	1910	250,000	16	<i>Oca Bianca - Anastasi</i>
<i>Torre a Oriente</i>	Torrecuso	2006	40,000	7	<i>Biancuzita - U' Barone</i>
<i>Torre Varano</i>	Torrecuso	1912	200,000	25	<i>36+6</i>
<i>Wartalia</i>	Guardia Sanframondi	2004	200,000	14	<i>Guardiolo Rosso</i>

Tab. 2 – Description of the analyzed wineries in the Pic Saint Loup area

Name	Town	Established	Ha	Number of references	Top product lines
<i>Château La Roque</i>	Fontanes	1985	42	7	<i>Prestige, En garde !</i>
<i>Château Lavabre</i>	Claret	1995	30	4	<i>Château Lavabre</i>
<i>Mas Bruguière</i>	Valflaunès	1974	20	6	<i>Le septième</i>
<i>Château Lascaux</i>	Vacquières	1984	84	12	<i>Les secrets</i>
<i>Domaine de l'Hortus</i>	Valflaunès	1976	65	5	<i>Grande Cuvée</i>
<i>Château Valcyre</i>	Valflaunès	1995	19	12	<i>"Confit" de generations</i>
<i>Clos des Augustins</i>	Saint-Mathieu de Trévièrs	2000	20	4	<i>Ainé</i>
<i>Coopérative de St-Mathieu</i>	Saint-Mathieu de Trévièrs	1950	940	6	<i>L'Or du Pic</i>
<i>Château Fontanès</i>	Fontanès	2004	4	2	<i>Château Fontanès</i>
<i>Mas Clavel</i>	Assas	1986	33	8	<i>Le marteau</i>
<i>Mas de Jon</i>	Fontanès	2005	12	4	<i>Apparté</i>

4. KEY FINDINGS

4.1 The case of Sannio Valley

The historical-geographical region originally inhabited by the Samnites occupied a wide area in the south of Italy, close to the Apennines. Today, Sannio Valley mainly coincides with the inner part of Campania region lying between the slopes of Taburno mountain and the Titerno river, in the province of Benevento. The pleasant hills dominating the area are mainly covered with olive trees and vineyards that represent the most important agricultural productions. Indeed, with more than 10,000 hectares of cultivated vineyards, around one million hectoliters of wine representing 40 per cent of annual regional production and more than 7,900 winegrowers (including over 100 producers), Sannio represents the most relevant wine area of Campania region despite its relatively limited dimensions.

The favorable conditions of soil and climate along with a secular tradition in wine-growing and the recent progresses achieved in the production techniques confer to Sannio wines unique

flavors and aromas, whose excellence is expressed by the most important typical grape varieties: Aglianico and Falanghina. But the rich wine heritage of Sannio Valley, whose origins date back to Roman times, also includes other grape varieties such as Piediroso, Coda di Volpe, Sommarello, Cerreto, Malvasia or Fiano. These vines are at the heart of the cultural and social identity of Sannio Valley, whose economy is also closely focused on wine production.

Collective actions

Despite the noble origins of vineyards cultivated in the Sannio area since ancient times, local winegrowers had to fight hard to shake off an image associated with the quantity rather than quality of local wines. Nevertheless, in recent decades there has been a turnaround and local producers have significantly raised the quality of their wines with a profound impact on consumers' perceptions.

A decisive step in this path towards quality was marked starting from the early 80s' by the recognition of "geographic denominations" for Sannio wines that were produced in compliance with specific rules concerning winegrowing areas and grape varieties. A further boost to this process was determined in 1999 by the creation of the "Sannio Consorzio Tutela Vini", a consortium including today more than 400 members between winegrowers and producers, that gave a fundamental contribution to the protection and recognition of the following labels of origin approved by the national committee: *Aglianico del Taburno DOCG (Denominazione di origine controllata e garantita)*; *Falanghina del Sannio DOC (Denominazione di origine controllata)*; *Sannio DOC (Denominazione di origine controllata)* and *Benevento IGT (Indicazione geografica territoriale)*. The *DOC* appellations, only recently reduced to two in order to guarantee a more immediate recognition of the Sannio Valley as place of origin of typical quality wines, are further divided into smaller subzones such as *Guardiolo*, *Solopaca*, *Sant'Agata de' Goti* and *Taburno*. As a tool for guaranteeing and communicating wine authenticity and traceability, labels of origin represented for several local wineries an important opportunity to move from price-based competition to effective differentiation strategies. In this regard, one of Sannio producers stated «At that time, we decided to focus on the *Solopaca DOP* that today is a *Sannio DOC*, *Solopaca subzone*, thank goodness this bottle gave us great satisfaction [...] We have always strongly believed in this product that was our first label of origin and still today we are negotiating for another 30 hectares in the *Solopaca subzone* [...] Our customers are very loyal to our brand, that they closely associate with the *Solopaca geographic denomination*». Just as in the mentioned case, local wineries marketing strategies are mainly aimed to promote the individual brand along with the geographic denomination that usually appears on the bottle's label. Excluding three big cooperatives that overall put together nearly 2,500 winegrowers and in the last years have driven the technological progress of the area, the Sannio wine industry is mainly made up of small producers operating according to an individualistic logic. One of the interviewed producers was quite clear on this point: «Personally I'm pretty happy with the results of my activity, since we keep our customers, we don't lose them. I cannot judge our results with reference to our competitors, because I don't know what they do [...] I make my proposal to the market and communicate what I want to be, I don't care about the competitors, each of us makes what he or she thinks is most appropriate for his or her business, then customers have to make their choice». Therefore, despite the

efforts of the consortium, the labels of origin represent a tool for protecting the uniqueness of local wines and ensure their traceability rather than the basis of a collective strategy aimed at promoting single producers under a common brand and building a stronger reputation for the whole area. The necessity to involve all the local actors in a common project aimed at promoting a dynamic, competitive and sustainable viticulture is at the heart of the Memorandum of Understanding recently signed by 13 Municipalities of the Sannio Valley, the Chamber of Commerce of Benevento, the National Centre for Researches (CNR) and the National Association of Wine Towns. The Memorandum is part of the territorial and landscape planning taking place in the involved municipalities, where the protection and valorization of historic vines, wine landscape and rural environment represent the key issues for the implementation of an effective strategy of local development. The ambitious purpose of the project is to coordinate the efforts of all the local stakeholders for the creation of the *Sannio Wine Valley*, through a complete viticultural zoning. Such a complex process, that at the moment has been realized in only one of the considered municipalities, should lead to the scientific identification of specific “zones” that are best suited to specific grape varieties. In this sense, terroir becomes a central element of landscape safeguard, that is in turn an essential precondition for the reputation of the place and consequently of the local wines. The protection and valorization of the rural landscape is widely required by almost all the local producers, one of whom complained: «No need to have a beautiful cellar or to organize a nice “School of Taste” if the roads are badly maintained or abusive huts are in the neighboring property [...] So let’s start with breaking down these old and ugly huts, that represent the only difference between our area and Tuscany, for example. Well, I think that our hills are even better!». Nevertheless, the same entrepreneur admitted: «I really would like to believe that they will realize what they are promising, but I can’t [...] I hope I’m wrong, I would be really happy to be wrong». Similarly, another entrepreneur observed: «If these activities were realized as they are planned in the project, it would be great; but the problem is that local institutions are normally too low because of bureaucracy [...] So the effects of these interventions are normally uncertain, the gap between the business world and the public sector is still too large». On the other hand, some of the interviewed entrepreneurs seemed quite enthusiastic about the project: «I’m quite sure that the project will have a positive impact on wine business, since it will give us the opportunity to differentiate terroirs in different zones of the whole area». In the same direction, another entrepreneur tried to imagine the potentialities of a common strategy: «We should think that who comes to us does not come just to our winery, they come to the Sannio Valley [...] Our *friends* that are in areas luckier than ours – let’s say they are not luckier but they were able to organize themselves before than us – sell their products not because of their individual brands but mainly because of the land of origin. Chianti Classico is sold simply because it is *Chianti Classico* [...] Thanks to the “Consorzio di Tutela” we are finally realizing the importance of going on the market with a collective brand, that is we are finally realizing the importance of territory, of a unique DOC».

Perceptions about terroir and its actual exploitation

As previously mentioned, in the case of Sannio Valley the link between wines and place of origin is mainly represented by the system of appellations approved by the national committee

and protected by the local consortium. Nevertheless, the concept of terroir has recently – in comparison with other Italian wine regions – started to exert a certain charm among local producers, who attributed different and sometimes incongruent meanings to this term. Our study revealed that all the producers recognize the importance of environmental factors in determining the specificity of terroir, with some of them focusing almost exclusively on physical characteristics. For example, one of the entrepreneurs described terroir as «the set of factors that determine the quality of a wine in terms of structure, aroma and acidity, such as soil composition, exposure, altitude». We also found that in many cases the term *terroir* is almost used as a synonym of territory and sometimes is a kind of tale used to describe the land's picture that entrepreneurs have in their mind: «The concept of terroir is the first thing, the mother of all things, if we didn't have this territory, even this wind that sometimes bothers us, there would not have been any chances for our economy [...] If you stop on the Telesina road during spring or summer and you look at our territory, beyond the river, you can appreciate a wonderful landscape made of vineyards, colors and imagines whose real value can be understood only if you are closely linked to this place». The role of human factors in determining the identity of terroir was pointed out only in some cases; for example, an entrepreneur observed: «What is done in the vineyard encapsulates in a moment all that the concept of terroir represents as well as all that actually characterizes the products and links them to the place of origin». Similarly, another producer stated: «clearly the hand of man is also very important, the hand of man has to carry on the story that has always been told about a territory, not simply copying it but trying to keep all the good that traditions may offer».

Even if our analysis highlighted the existence of a deep link between wine producers and their land, few collective actions have been carried out on their own initiative to improve the reputation of the whole area and consequently consumers' perceptions about the identity of local products. Indeed, place-based strategies generally fell from local institutions and wine or tourism unions and only a limited number of producers, particularly the biggest local cooperatives, concretely contributed to the productive qualification of the place. Nevertheless, the need for common strategies aimed at improving the reputation of the area towards different categories of external stakeholders has been widely recognized in our interviews. On this point, one of the producers maintained: «we are working on special projects aimed to improve wine quality along with the reputation of Sannio as a top wine region [...] if we were in Tuscany, in the Langhe area or in another place with a higher reputation some of our wines would cost more than 70 euros». Pointing out that selling wines also means selling the land they come from and vice versa, another entrepreneur stated: «I strongly believe that a link with the territory is necessary to sell wines, my wines tell a lot about the territory they are from, they have a special “footprint”, that “footprint” that each winegrower has to give to his/her wines.»

4.2 The case of Pic Saint-Loup

The Pic Saint-Loup area is located in Languedoc-Roussillon region, in the south of France, 30 km from the Mediterranean coast. The mountain Pic Saint-Loup dominates the skyline, while the vegetation, well suited to summer draughts, is made up of various typical Mediterranean essences. Analysis of climatic factors has proven that these contribute to the particular character of the wines and have a significant impact on the wines' aromas and taste. The

uniqueness climate of Pic Saint-Loup remains based on sufficient winter rainfall combined in a hollow dip which provides favorable moderate drought quality. During the grapes maturation cycle, the temperature variations are very important, particularly in summer where days are warm and nights are cool. These variations are a definitive advantage in the preservation of the finesse and freshness of the fruit. At the same time, the wines express themselves through the individual character of the soils: hard limestone, soft limestone, conglomerates, dolomites, fallen river or cryoclastic limestone, marl. Therefore, the original climate and soil influence wines and facilitate their differentiation. As stated by one of the interviewed entrepreneur «A winemaker from Pic Saint-Loup can be recognized by the specific identity of his wine, to which each natural element contributes». The Pic Saint-Loup grape varieties reflect the region's push for quality. Over the past thirty years, the vineyards have been virtually all replanted with three main grape varieties: Syrah, Grenache and Mourvèdre.

Collective actions

Since the end of the 19th century, thanks to the replanting of vineyards destroyed by phylloxera and the rise of cooperatives, the region gradually moved towards monoculture, and the Pic Saint-Loup wines started to be consumed outside their production area. A critical event was the foundation of the “Wine Union” in 1931, with the clear definition of the production area allowed to use a “VDQS” French label (wines of superior quality), ratified in 1955. This area initially included six towns; three towns joined in 1955; four other in 1966, up to thirteen, that is the current number of towns included in the defined denomination area. The union set out the conditions to obtain the “VDQS” label (including the grape varieties, the alcohol level and yield, the minimum vine age, the planting density). During the eighties, the “AOC” label, awarded by the INAO (French Institute of Origin Denomination), substituted the “VDQS”.

In 1985, during the switching of VDQS terroirs to regional denomination of origin “AOC Coteaux du Languedoc”, the INAO was asked the question of VDQS Pic Saint-Loup acceptance because of the lower quality of production. As noted by one of the interviewed producers: «Actually, we were the worst at that time because our terroir is colder and more humid. The dominant grape varieties were Carignan and Cinsault. There were inappropriate grape varieties. Since we changed the planting and we oriented to Syrah variety, there has been an enormous qualitative progress ». The challenge for some winemakers was simply to survive to the economic crisis. Therefore, they chose to pursue a collective strategy based on replanting and differentiating their wines by quality. As noted by one of the entrepreneurs: «At that time, the Pic Saint-Loup was not known as a top wine region. Beyond survival and sustainability, it was the search for the best possible individual economic performance that motivated many producers to join a collective strategy».

Therefore, there was a diffused opinion that the initiated collective strategy could have accelerated the qualitative rise process and the individual recognition of committed wine producers. This contributed to the creation of a human solidarity group that still characterizes this area. Here wine producers are not competitors or just neighbors, they are friends continuously and informally talking together about their wines. As stated by an entrepreneur: «Individualism has no future in grape-growing». Similarly, another one maintained: «Join together is necessary, particularly for addressing the export».

The collective strategy is rooted in the creation of the collective brand “Pic Saint-Loup” based on a strong qualitative differentiation. The collective brand can offer the market greater volumes and bring out the individual structures which support it. As stated by one of the interviewed wine producers: «These are small craft firms; therefore, they are normally unable to establish their name or their private brand and to create a brand awareness. They are inevitably led to collaborate and bring out a collective brand that will raise the volumes». Another one maintained: «We have something in common which is this land and this name, “Pic Saint-Loup”, and it is only going in the same direction that we will succeed». In order to foster this collective strategy, based on the creation of a collective brand, new and more strict rules were approved in 1994. The new production decree, which limits the geographical area and the prospective opportunistic behavior of structures who would not apply strict production rules, acts as a barrier to entry.

Thus, since 1994, winemakers of the Pic Saint-Loup area want to strictly reserve the brand to be used for wines produced in the thirteen historical towns. The decree leads to restrictive production conditions in comparison with the regional “Coteaux du Languedoc” denomination decree. The decree establishes production rules for distinguishing the Pic Saint-Loup wines. This policy aims to enhance the personality and the character of the area wines. The planting is also part of a qualitative priority. In the consumer spirit, the Pic Saint-Loup “terroir” is proposed as a “Cru”, a premium position, of the Languedoc-Roussillon region. As stated by wine producers: «We wanted to distinguish ourselves from the regional denomination Coteaux du Languedoc and become a real denomination»; «We joined our forces to make a hierarchy approach, to distinguish the Pic Saint-Loup as a “Cru” and a future denomination in comparison to the Coteaux du Languedoc denomination». The decree goal is to create original products, based on “terroir” characteristics and recognized as “terroir” products by consumers. According to a respondent, «the “terroir” name isn’t enough; the most important thing is the consumer choice».

The final point of such a collective strategy is, in fact, the creation of a great “AOC Pic Saint-Loup” denomination, undertaken in a spirit of solidarity and synergy. With this aim, at the end of 2001, the winemakers submitted to the INAO a request for Pic Saint-Loup to obtain an AOC in its own right. Having been approved by the INAO regional committee, the request still has not been approved by the national committee.

Perceptions about terroir and its actual exploitation

In this area, soil, climate, men and their knowledge come together to create a recognized and recognizable wine. Each wine producer, in his own domain, shares his “savoir-faire” with others in the group in the spirit of discovery and accomplishment. What emerges from the analysis of this case is a perception of the “terroir” as merely influenced by the economic and relational logic rather than by a climatic or soil definition. In this regard, it is possible to highlight that from the soil and climatic perspectives other towns in the area could be part of the future denomination Pic Saint-Loup. In fact, the INAO committee expressed the willingness to extend the current Pic Saint-Loup area by integrating also the town of Vacquières. But the winegrowers wish to retain the original geographical area traced by the 1994 decree. They prefer to lose the AOC denomination rather than lose the volume control and the wines quality.

In their view, control of the boundaries of the area represents a strong barrier to entry and can limit opportunistic behaviors. For instance, one of the interviewed producers stated: «There are several towns which want to integrate the Pic Saint-Loup area since we want to transform it into AOC. The problem is their investment in a quality policy more than their terroir. [...]. We are ready to drop the AOC if the INAO imposes these towns that we do not want».

Therefore, the reasons behind the terroir definition are merely economic and relational. As mentioned by one of the entrepreneurs: «There was a deliberate economic approach. We are free to initiate any kind of project since we did the first one all alone. We decided our strategy without any external influence, such as the one of regional institutions, and we never entered the game of political influences or local authorities. I am convinced that development cannot be imposed by external people; it should be carried by the local people». It is therefore evident that a local and endogenous logic, and not an institutional or exogenous logic, is dominant here. The definition of terroir, in the minds of all the producers, coincides with the area occupied by the communities that have decided to work together and grow together; it is not something just related to the geological and climatic characteristics of the area, but mostly to the delimitation of the economic benefits that can be derived from belonging to the joint project.

The economic benefits derive from the possibility offered to the wine producers in the terroir to stand out compared to other competitors of the region, reinforcing and highlighting their individual brand. During wine trade shows the Pic Saint-Loup winemakers are grouped within a collective stand and under an explicit streamer: «an exceptional terroir for united wine producers». The streamer is always accompanied by a photo of the winegrower members group. This collective effort seems to be really effective for each of the participants. For instance, one of the entrepreneurs stated: «The name and collective strategy of the terroir is a promise to the people who in the future will be able to count on a regular job and substantial advantages». Again: «We are working on yields to enhance the positive effects of terroir. There is a real interest to stand out. In France we cannot struggle with volume production». In commercial terms, the terroir is used as an umbrella brand that values the individual brands. As noted by all the respondents, the success of this strategy is mainly due to the relational dynamics that have been created over time and to the ability to work together for a common goal. In their opinion, this is a capability that distinguishes this case compared to other areas. For instance, one entrepreneur observed: «The terroir is strictly linked to the competences of the men coming from this area. Pic Saint-Loup is inimitable in this direction. Its terroir is based on its strong identity. There are no other areas like this in the Languedoc-Roussillon region». In the same direction, another producer stated: «Success is more related to the men than to the terroir itself».

5. DISCUSSION

The comparative analysis of Sannio Valley and Pic Saint-Loup cases allowed us to examine in-depth wine producers' interpretation, perceptions and use of the terroir concept. Many interesting results emerged from the present study, which in our opinion adds to the extant knowledge about terroir in several ways.

First of all, the paper uncovers the definition of terroir focusing on producers, whose point of view to date has not been intensively investigated (Spielmann and Gélinas-Chebat, 2012).

Regarding this point, significant differences emerged between the two cases, even if both confirmed the power of terroir as a means for differentiating wines according to the specific characteristics of a place. Precisely, in the French case the concept of terroir is merely influenced by a relational logic initially required because of economic reasons, while environmental factors such as climate or soil are almost taken for granted. In this sense, Pic Saint-Loup producers act as crucial protagonists of the social construction of terroir (Ballantyne, 2011), thus contributing directly to the improvement of place reputation. Meanwhile, a collective marketing strategy is carried out through coordinated communication activities aimed at strengthening their individual brands under a common umbrella represented by terroir. Instead, in defining terroir producers from Sannio Valley emphasized the role of environmental factors, namely plant growing conditions and territory (Vaudour, 2002) as indelible imprints able to confer specificity and personality to the wines produced in specific areas. Human intervention was also mentioned by some entrepreneurs as a dimension of terroir mainly dealing with cultivation methods, history and traditions, nevertheless the relational logic characterizing terroir exploitation in the French case is almost lacking among Sannio small producers. Actually, the biggest local cooperatives have been recently putting significant efforts into the promotion of place-based marketing strategies. Furthermore, in this case a significant contribution in moving the local wine industry away from merely price-based competition was given by the formal recognition of labels of origin, also promoted by the local consortium that today protects four geographic denominations. Indeed, the appellations appearing on bottles labels are among the key factors of the differentiation strategy adopted by most of the examined producers. According to many of them, terroir may contribute to a further differentiation of typical productions by capturing the uniqueness of their origin through elements others than the objective parameters used for the attribution of geographic denominations. In this perspective, the recent initiatives of Sannio Valley institutional actors represent an ambitious attempt to redraw the whole area through a complete zoning able to take into account the specific vocation of all soils, in order to promote a sustainable rural development and all the correlated activities, including tourism. Moreover, considerable efforts have been made in the last period by the local consortium in order to emphasize, also through conferences, workshops and tastings, how different styles of wines can be obtained from the same grape variety grown on different types of terroir.

Based on these considerations, the scale of terroir (Vaudour, 2002) producers usually refer to also marks a significant difference between the two cases. Indeed, while in the Italian case denominations of origin represent the legal protection of different vines within Sannio area that can be even differentiated in smaller zones, in the French case the terroir is proposed as a single “Cru” of the Languedoc region, since a formal appellation is still missing.

In sum, our results show that in producers’ perspective terroir is a complex concept with multiple facets, whose relative importance changes depending on the context in which its social construction takes place. The prevalence of a relational logic underlying terroir definition and valorization for economic purposes is normally associated with a profound role of the human component, particularly producers themselves, in strengthening the link between wine and place of origin. Conversely, when collective initiatives generally fall from local institutions and associations, terroir is mostly defined in terms of space, that is territory, appellation and

landscape units are supposed to shape decisively the identity of a place and its wines.

6. CONCLUSIONS AND LIMITATIONS

This paper is part of the vibrant debate going on in wine literature about the terroir concept. As previously detailed, our work contributed to uncover the definition of terroir according to wine producers. Specifically, by using a cross-case analysis we highlighted the main differences and similarities occurring in the identification and exploitation of terroir as a mean of differentiation between two dynamic even if not top-level wine areas of France and Italy. Interesting insights about producers' perceptions of intervention needed by institutional local actors in order to use terroir as a tool for place reputation improvement are also provided.

This study is not without limitations. The main limitation is the inability to generalize results, mainly due to: 1) the bounded number and 2) the nature of case studies. As said before, all the examined firms operate respectively in two minor areas of France and Italy. Therefore, more studies are needed to explore the concept of terroir in various contexts, as New World countries.

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The concept of terroir: The elusive cultural elements as defined by the Central Otago Wine Region

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Abstract

The impact of the physiological elements of terroir, soil, climate, and topography on the taste of wine is well accepted in wine research. Less research has been conducted on the cultural interposition of man concerning tradition, environmental orientation, and information and social exchange within wine regions in enhancing terroir. In spite of deficiency in the literature concerning the cultural elements of terroir, scholars suggest that they are of equal importance to the physiological elements in the concept of terroir. Because terroir is a distinctive marker of wine quality, terroir matters to consumers purchasing premium wines. Therefore, to provide a holistic delineation of terroir absent in the literature, this qualitative study defines the physiological and cultural elements of terroir for a particular wine region, the Central Otago Wine Region in the South Island of New Zealand, a New World wine region. The study was conducted through personal interviews with 24 vintners, viticulturalists, and managers associated with the wineries of the region. The findings demystified the cultural meaning of terroir as delineated by the regional constituents. The results are important to academia as it expands the literature on terroir and wine marketing. For practicum, the findings are advantageous for other regions striving to differentiate their wines in a decidedly competitive global marketplace.

Key Words: terroir, wine marketing, wine regions

1. INTRODUCTION

'Terroir' is a derivative of the French word for soil, *terre*, (Murray, Bradley, Craigie, and Onions, 1989, p. 219) and is an idiosyncratic word that does not translate easily from French to any another language. In fact, many authors writing about the subject of wine avoid defining it (Hancock, 1999; Robinson, 1999). Much attention has been given to the concept of terroir and studies support the connection between the earth and the quality and typicity of wines (Hancock, 1999; Trubeck, 2008; White, 2003; Wilson, 1998). Specifically, the soil, climate, and topography impact the taste of grapes, therefore, the taste of the wines, which elevates the reputation of the wine, the winery, and even the vineyard.

Many studies relate to a technical-scientific relationship between the physiological aspects of the agricultural and winemaking activities of wine production. However, some authors emphasize the intangible, cultural aspects of terroir, for example, the people being connected to the land and the traditions of an area (Deloire, Prévost, and Kelly, 2008; Gade, 2004; Van Leeuwen and Seguin, 2006; Vaudour, 2002; Wilson, 1998). While the composition of the physiological aspects of wine making are readily acknowledged and agreed upon, the cultural factors are not. For example, according to Wilson (1998, p.55) "The culture of the site (racial and religious make-up, *morés*, the economic and educational attainment of its peoples)" is integrated with the physiological components of terroir, but without an in-depth explanation. Recent research indicates that a combination of the physiological and cultural elements is important in the quality and presentation of the wine to the world (Beverland, 2004; Moran, 2001; Vaudour, 2002). In particular, Vaudour (2002) posits that the "conscience" component, the cultural and sociological identity, and the "slogan" or marketing element are linked to the physiological factors in the marketing of premium wines to gain emotional attachment with consumers (p. 120). However, without a clear identification of the cultural elements, an effective promotional campaign cannot be developed, thus undermining a unified regional marketing effort. Therefore, this study determined not only how the physiological factors are defined for a particular wine region, but also the cultural factors in an effort to clarify this elusive but significant element of terroir.

2. BACKGROUND OF TERROIR

Although the origins of the idea of terroir are unclear, different types and styles of wine gained prominence even in ancient Mesopotamia as early as the fourth century B.C. (Pellechia, 2006). Today, terroir is historically associated with French winemaking, and features significantly in promoting a passionate other-worldly, yet apparently, scientific aspect of that country's wines. However, wineries throughout the world now claim to have terroir. Whether associated with a wine, winery, vineyard, or sections of vineyards, the word terroir projects a somewhat spiritual level of quality. From a commercial perspective, the marker of terroir carries heavy weight with wine critics, therefore is important to serious wine consumers (Hancock, 1999; Robinson, 1999). Thus, marketability of wines from various regions, specific vineyards, and producers is affected by a strong link to terroir (Aylward, 2005; Aylward, 2008).

Terroir offers a labyrinth of perspectives. The direct, physiological elements of terroir, soil, climate and topography, are widely accepted and generally agreed upon as critical. In relation to wine, neighboring vineyards can indeed have different characteristics caused by subtle soil differences. Additionally, temperature and precipitation are key components in climate variation (Bohmrich, 1996, Halliday, 1993, White, 2003). Likewise, the topography of a particular vineyard or section plays a significant role in winemaking (Bohmrich, 1996).

However, some researchers argue that there are other indirect influences that, although important, are not well researched. There is some support in the literature for introducing a cultural aspect to terroir which, of course, adds to its complexity, but not to the clarity of the meaning (Wilson, 1998). For example, human motivations, attitudes, and beliefs are stated as being part of the composition of terroir, but are never precisely explained by scholars (Veseth, 2005). Emmanuelle Vaudour (2002) a French wine researcher, introduced the concept that identity or “conscience” type of terroir consists of “ancestry, authenticity, and tradition” (p. 119). Gade (2004) expands the concept of terroir to human knowledge and skills learned in the past and passed on to future generations, a type of legacy. Likewise, Demossier (2001) contends that terroir could be seen as less geographically connected, instead has a historical perspective— that of producers assigning new meaning to the past and re-writing the history of the location.

In an interview with Trubek (2004), Alain Carbonneau, a Professor of Viticulture at École Nationale Supérieure Agronomique in Montpellier indicated that the French understand the meaning of terroir in the contexts of culture and landscape and their traditional relationship to a farming lifestyle. He stated further that the rest of the world interprets terroir on a scientific level of soil, climate, and topography and ignores the traditional attributes (those of a cultural nature) that the French apply to terroir. The cultural side of terroir is a critical part of the controversy between the Old World and New World (Americas, Africa, Australia, New Zealand) wine producing areas with the Old World indicating that they alone can claim to have terroir because of these attributes. Therefore, this study delineated the physiological and ambiguous cultural elements of a particular New World wine region.

3. OLD WORLD/NEW WORLD CONTROVERSY

Terroir in French wine arose from a comeback from disaster. In 1865, a small number of wine producers experienced the death of their vines due to *Phylloxera*, a microscopic insect living in the vine roots (Pellechia, 2006). It spread rapidly throughout France and Europe threatening to eradicate the entire wine industry. To help rebuild the industry in France once *Phylloxera* was under control, *Appellation d’Origine Contrôlée* (AOC), a categorization system for the major wine regions in France, was established in 1935 to designate major classifications of quality (Gade, 2004). Through this system of regulation, France has elevated the promotion of its wine. The quality is assumed by consumers to be tightly controlled and uniquely defined and by this logic, France claims to be a premium wine producer with authentic terroir (Aylward, 2005; Trubek, 2008).

European colonial expansion into new territories from the 1500s gave rise to New World wines (Phillips, 2000). The explorers brought grape vines with them and established modest wine production in the Americas, Africa, Australia, New Zealand, and later China and India, although commercial production was not seen until the mid-19th century. However, Europeans, particularly the French, did not acknowledge it as quality wine. This Old World-New World quality perspective favored the Old World growers and continued until an American wine won a blind taste test in Paris 1976 (Veseth, 2005). This caused much consternation among the French, however, they were very confident that the stringent rules of their AOC, limiting production and controlling wine quality of regions, enabled them uniquely to continue to claim terroir. Customers began to recognize distinctive terroir associated with specific places, thus increasing demand for wines containing the elusive characteristic (Aylward, 2005).

New World wine countries have expropriated terroir as a quality marker and have applied it to their wine environments, with the Old World disputing the claim. The concept of terroir is prone to attract controversy at the level of eco-systems, oenological (winemaking), science, politics, and indeed, as a tool in marketing practice. Terroir is important in marketing with its link to specific places (Johnson and Bruwer, 2007). From a marketing perspective it is clear that terroir has market value and it links consumer to vineyard (Cullum, 2006). However, as noted above, terroir comprises more than the physical elements of the place, but these other “cultural” or people elements that are not well-defined (Bohmrich, 1996; Vaudour, 2002; Wilson, 1998). This research has identified those important cultural elements of terroir integrated with the physical elements in one particular New World wine region.

There are significant economic reasons for the increased importance of the claim to terroir. From modest beginnings, the wine industry has grown into a global marketing entity. In recent years, the industry world-wide has realized moderate growth, however, it exceeded USD\$107 billion in 1995, increased to USD\$257.5 billion in 2011, and is expected to grow to \$327.8 billion by 2016 (Wine: Global Industry Guide, 2011). In vying for an increased share of this large world market, competitive conflict has arisen between the producers of Old World wine in Europe and New World producers. Wines substantiated by wine critics as expressing terroir obtain high customer demand thus escalating revenues for wineries (Beverland, 2004).

Competition between the Old and New Worlds has accelerated because younger consumers from traditional wine countries, such as France, Italy, Spain, and Portugal have decreased the amount of wine consumed on a daily basis (Demossier, 2001; Global Wine Consumption, 2008; Macle, 2008). However, a new group of “occasional” drinkers is seeking premium rather than ordinary wines and New World wines are beginning to meet their needs. Therefore, a New World region’s or winery’s claim to the quality identification of terroir has become more important in attracting consumers seeking high-end wines (Beverland, 2004; Charters, 2006; Gil & Mercedes, 1999; Santos, Blanco, and Fernández, 2006; Thode and Maskulka, 1998).

Because terroir has become an important link to wine quality impacting consumer decisions and it is argued in the literature that there are cultural (albeit with little explanation) and physiological elements in its meaning, it would seem important to understand all of the aspects that comprise it. Therefore, a specific research aim in the study was to understand and analyze the physiological and cultural elements of terroir in a New World wine region.

4. RESEARCH CONTEXT – CENTRAL OTAGO WINE REGION

This research was conducted in the Central Otago Wine Region in the South Island of New Zealand (see Appendix A for Regional Map). The region began to achieve global recognition in 1864 after the discovery of gold. This attracted a rambunctious group of pioneers willing to take substantial risks in the gold-mining effort, similar to the wine producers of the region today (Oram, 2004). At 45° south, this is the world’s southernmost winemaking region and also New Zealand’s highest in altitude. The climate is unpredictable, resulting in a precarious grape-growing environment. With fewer than 100 small-production wineries, the region is still considered young as it began seriously producing premium Pinot Noir and Riesling in the 1990s (COWA, 2013; Oram, 2004). Currently, 74% of the wine produced is Pinot Noir and the region is receiving significant worldwide acclaim for the full-fruit, yet earthy quality of Pinot Noir it produces (Prince of Pinot, 2006; Robinson, 1999).

The small producers recognized that they did not have individual market clout and could more successfully develop regional recognition by working together on some activities, even though they were competitors. This strategy, strongly dictated by an uncertain climate resulting in less production, focuses on producing high-quality wines, likely to secure premium prices in the marketplace (Caple, 2012; Harmon, 2005; Top ten Otago Pinot Noir, 2009). Central Otago wineries also claim to have terroir as the specific physiological elements of the region (climate, soil, and topography) are often linked to premium Pinot Noir producing areas. Because of the presence of terroir in the regional wines, as proclaimed by wine critics, and the fact that it is a new region in the process of heightening its distinctiveness, the region was deemed ideal to identify and analyze the cultural elements of terroir (Robinson, 1999).

5. RESEARCH METHODS

The method of research was a qualitative, single-case study unraveling *how* winery personnel understood what terroir meant for their region. Since the cultural elements of terroir are claimed to be derived from the people living in a region as stated in the literature, it made sense to capture individual explanations and reflections from people who were involved in the day-to-day process of producing wine. Therefore, in-depth, open-ended interviewing was the appropriate method of data collection for this study. The interview was semi-structured, encouraging participants to speak about their connection to the place of Central Otago and their interpretation of the terroir of the region. Twenty-four owners, vintners, and viticulturalists were interviewed with a final interview with one of the wine-producing founders of the region (see Appendix B for criteria for choosing the participants).

After the interviews were transcribed by an outside professional, content analysis was used because this method has been generally accepted as a useful means of textual analysis by researchers to interpret meaning (Silverman, 2001; Weber, 1990). The transcripts were read in detail and significant statements were coded descriptively. The descriptive codes or categories across all the interviews were reviewed to see how they linked together or did not seem to fit in developing themes and patterns. Many general themes began to emerge, such as the personal meaning the participants ascribed to the physical place of Central Otago. This included engaging in physical activities associated with the region, enjoying the beautiful landscape, and a sense of permanence or “home”. These themes allowed a semblance of the cultural elements of Central Otago terroir to emerge.

A qualitative data analysis software tool, NVivo®, was chosen for this study as it provides advanced coding and data manipulation (Gilbert, 2002). NVivo® assisted in sorting through enormous amounts of text and associating codes and patterns with text (quotations).

6. RESULTS OF STUDY

This study demystified and defined the elusive cultural elements of terroir for Central Otago so often glossed over in the literature (Demossier, 2004; Trubek, 2004; Vaudour 2002; Wilson, 1998). In the participants’ minds, these cultural elements are embodied in their wines as much as the physiological elements are. The patterns and themes emerging from the interviews concerning cultural elements are significant because they have not been revealed in other research and the findings substantially expand the literature of terroir and wine marketing. Practitioners can also benefit by understanding the important link between the physiological and cultural aspects of terroir, and marketing regional premium wines.

In the following section, the participants' viewpoints of the physiological and cultural aspects of terroir associated with the region are delineated.

6.1 Physiological Aspects of Terroir

6.1.1. *Soil, climate, and topography*

While the *physical* elements of the terroir - soil, climate, and topography, were part of the Central Otago region long before the wine was produced there, of interest in this study was the perception of the elements from the participants' viewpoints. An important part of Central Otago's terroir is that the winery personnel are beginning to understand the nuances and differences of each section of their vineyards. As the vintner/owner from a Wanaka winery stated:

To have an expression of terroir from a particular vineyard like this one, will take longer to come through in the taste because it's a matter of the winemaker understanding the site.

This is important to terroir as the roots have now matured and penetrated the soil more deeply and the "taste" of the earth is more strongly reflected in the taste of the wine. The vintner at a Cromwell winery reinforced this idea:

All the decisions that you make, how you set your winery up, are all based around what we see coming from the vineyard - these types of grapes, we get these flavors, and so you know it's going to be making this type of wine, and we have to equip ourselves to follow the best path.

With this preface, all the participants agreed that climate and soil imparted individuality to their wines and some claimed it to be an expression of the region, others the sub-regions or the individual vineyards. Comments like this were heard:

Owner in Alexandra: You might say the broad picture of Central terroir is that there is a similar product coming off similar quality berries and similar quality wine coming off the whole lot. There must be a sort of a blanket that you could throw over the whole place and say this is what it looks like.

A theme emerging from the study was that the participants did believe that their wines exhibited terroir associated with the soil, climate, and topography. They also emphasized the importance of proclaiming and promoting *regional* terroir, not individual vineyard or sub-region, to further establish the distinctiveness of the wine in association with the region.

6.1.2 *Physical human intervention*

Another theme that emerged among the wineries was the importance of "natural" wine production and grape growing to allow true terroir to come through. This means that the winemaker does not chemically alter the wine. As the winemaker from a Gibbston Valley winery indicated, "It's almost what I don't do rather than what I do." Likewise, another way of letting the natural terroir in wine emerge is through vineyard management techniques, such as reduction in the use of machinery, pesticides, and herbicides. All grapes are picked by hand and organic techniques were being adopted by many wineries. As the owner of a Wanaka winery stated:

You're backing away from more and more from winemaker influence and just trying to show what the terroir can do.

A vintner from a Bannockburn winery added this:terroir

We're focusing a lot more on expressing our terroir or our sense of place in our wines. For terroir, natural approaches in the vineyard will help accentuate whatever difference we have on our patch of ground.

6.1.3 Harsh Climate

Throughout the analysis, it was evident that the physiological elements were tightly linked to the physiological aspects of terroir. For example, the expression of the harshness of the climate in which they grew grapes was mentioned repeatedly. This is understandable, because it drives the persistence necessary to produce wine in Central Otago.

Vintner of a Bannockburn winery: *We're so used to it, you know. One day is it hot and about 30 degrees and the next day it snows!*

Viticulturalist of an Alexandra winery: *The weather just doesn't cooperate and people have no idea how volatile this climate is, and we are used to incredible change.*

The fight against climate is particularly difficult with their "policy" of having natural practices and limiting machinery, such as windmills, to deter frost. They all know what they are facing and the harsh climate and their strong will to overcome odds are embedded in their approach to viticulture.

In summary, all of the participants recognized that their wines reflected physiological aspects of terroir. They were also adamant that regional terroir should be emphasized, and should not be associated just with individual wines, vineyards, or wineries. This ideology of proclaiming a united stance heavily influences the ethos of the region and cultural aspects of terroir.

6.2 Cultural aspects of terroir

An important theme emerging from in-depth interviews about terroir, was the human aspect associated with it. Many winery personnel felt that the physical elements of terroir could not be separated from the people, a link that had been previously suggested in the literature (Trubek, 2004; Vaudour, 2002; Wilson, 1998). However little empirical research exists to support this connection or provide detailed explanation. Some comments by the study participants about the human connection to the individuality of their wines were:

Owner in Alexandra: *I'm of the opinion that terroir is not just of the earth, the rainfall and the heat, but it's the human element and the knowledge and the pairing over hundreds of years of looking at what plants go where and that sort of stuff.*

Owner in Bendigo: *Climate is part of the terroir, and I also think the way the industry has evolved, I actually think the people are part of the terroir.*

In probing further into the participants' thoughts of why and how people were included in their formula of terroir, it became more difficult for them to articulate, reflecting the abstruse nature of the cultural aspects of terroir. This study was valuable because several themes and patterns evolved through the process of questioning and interpretation, illuminating the latent cultural elements of Central Otago terroir. Four main themes emerged from the analysis of the interview data: Pioneers, Attachment to Place, Collaboration, and Pride and Passion.

6.2.1 Collaboration

Collaboration is part of the defining identity of Central Otago and is the most important factor in their success, both in marketing their wines and in maintaining quality. They have received domestic and global recognition for their wines and that motivates them to produce better wine. They hold each other to high standards. They maintain wine quality through open exchange of knowledge that incorporates other Pinot Noir producing wineries around the world, not just Central Otago. In a sense, they contribute to their terroir, but their terroir motivates them. A viticulturalist in the Bannockburn sub-region stated:

It's being part of a Pinot Noir community, more than a Central Otago community here. There is a huge history of information sharing and pushing quality.

Owner from Bendigo: *And, within and outside of New Zealand, people look at Central Otago as... held up as one of the top areas to grow Pinot Noir.*

Vintner from Gibbston Valley: *I believe that terroir is not just of the earth, but it's the human element and shared knowledge.*

6.2.2 Pioneers

Early wine pioneers in Central Otago were attracted to Central Otago and overcame the odds to produce premium wines through perseverance. Their isolation from the rest of the world means they have to share knowledge and risks in an effort to sustain and enhance the quality of their wines. Also, the harsh climate means that annually the participants go through suspenseful situations in fighting frost and insects. This "going against the odds" attitude motivates them to continue to express their distinctive terroir through premium wine production. As expressed by a viticulturalist in the Bannockburn sub-region:

We're all new to it, really. Because it's such a new area, that's probably what makes us all band together.

And by an owner in Wanaka: *I just think it's people who want to make the best wine possible and probably because everyone outside Central Otago said that grapes could never be grown here and good wine could never be made. We were always wanting to show that it could be done.*

6.2.3 Attachment to Place

The attraction to the place is more to the people than just being able to produce premium wine. They enjoy the mountainous landscape and the rural environment. Their lifestyle involves outdoor activities and solid community commitment. This "love of the land"

evolved into respect for what the soil and climate could give them, although constant challenges are present. A vintner in Alexandra stated:

I think it [people wanting to make excellent wine] happens quite easily because people are just gobsmacked by the beauty of the region – the mountains, the lakes and rivers.

And from an owner in Gibbston Valley: *When I'm not here [winery], you can find me fishing on a stream. We love Central.*

An owner/vintner in Wanaka had yet another viewpoint of terroir. His vineyards and winery are completely biodynamic, so he is very connected to the concept of being a caretaker of the earth. Regarding terroir he indicated: "I'm not a religious person, I'm just saying that the intent is to glorify nature, that is to say, this is actually a wine that belongs to a place. We should go back to hundreds of years ago when winemakers were introspective and humble and were filled with humility for the soil and their surroundings." So, his concept of terroir is one of a more spiritual nature or respect for the earth, instilling pride in producing excellent wine. As he has some of the oldest vines in the region, his terroir is "stronger" than other wineries and that has an impact on his thinking, therefore on the way his vineyards and winemaking are managed.

6.2.4 Pride and Passion

Passion and collaboration are tied to producing the best wine possible. The wineries' collaboration assists in enhancing the regional terroir, or the distinctiveness of the region. There is another aspect to it - they do not want to disappoint others or be the one who produces lesser quality wine by not expressing Central Otago's terroir. As the owner/vintner from an Alexandra winery said: "You want to bring people up, but you also don't want to let them down." Clearly, collaboration assists in sustaining and enhancing terroir, but the mirror image of this exists. That is, terroir and with it differentiation, assists in collaboration and sustaining pride and passion – it is a unifying factor physically and culturally tying all the wineries together. As an owner in Cromwell indicated:

"As a group of winemakers, we've been very supportive of each other, we've shared information, shared ideas, so that the terroir of Central Otago embraces the winemaking aspect. That sort of passion - the striving to make the best wine and to look at what your raw materials are, the sun, the light, the soils etc, I think that does, to some extent, set Central Otago aside from other regions in the world."

In the case of Central Otago, it appears as though *their* terroir and *their* regional identity cannot be separated. Differentiation is important to the regional wineries both from commercial and pride perspectives, therefore they collaborate to enhance their terroir. And, they work together to project a united image through their marketing efforts. As a Cromwell owner/vintner said: "That's why I say we have to be ourselves, we have to let our individuality come through in our wines. I mean not us as people but us as a region".

As a regional founder stated:

And even the guys behind the counter, they know where Central Otago is and they know what you do. And to me that's amazing, in just 15 years of being out there, marketing- 10 years really in terms of most of the wines that are available now. We have gotten huge recognition in a short time. And I think most of us, when we go away and do a tasting anywhere we're telling the regional story as well. We're talking about Central Otago and what makes us different. And our wines are part of that so obviously, we talk about the regional terroir, the regional difference and again that isolation factor, the distance from other regions.

In summary, in the minds of the participants, there is a distinctive, *differentiated* taste associated with the attributes of the region and its people. The cultural aspects of terroir are embodied in the identity of the region as described by the participants. Maintaining terroir is dependent upon producing quality wine. One of the unique Central Otago cultural aspects is the concept of collaboration, exchanging wine making and vineyard management techniques facilitating the enhancement of terroir. So the soil, climate, and topography help to differentiate the wines, but the distinctive regional marketing “story” is powerful because of the interplay between the physiological factors and the cultural elements of terroir. From a marketing perspective, the physiological elements are a given because a premium wine exhibits the soil, climate, and topography of an area. However, the real differentiators in the marketplace are the cultural elements of terroir or how the people interact with the place. This is a concept that can be used effectively in marketing communication.

A representation of the embodiment of the physiological and cultural aspects of terroir is depicted in Figure 1. This figure summarizes the basis of terroir for the region in the soil, topography, and climate. Human intervention is integral with how the vineyard is managed and how the wine is made. The cultural elements are particular to Central Otago including the pioneering, “can do” attitude, the participants attachment to the place, their willingness to collaborate to produce excellence in the region, and their pride and passion in producing premium wine. These elements were found to be in contrast to previous literature accentuating tradition and history. Lacking these elements, the regional constituents attached their own meaning and definition to their terroir.

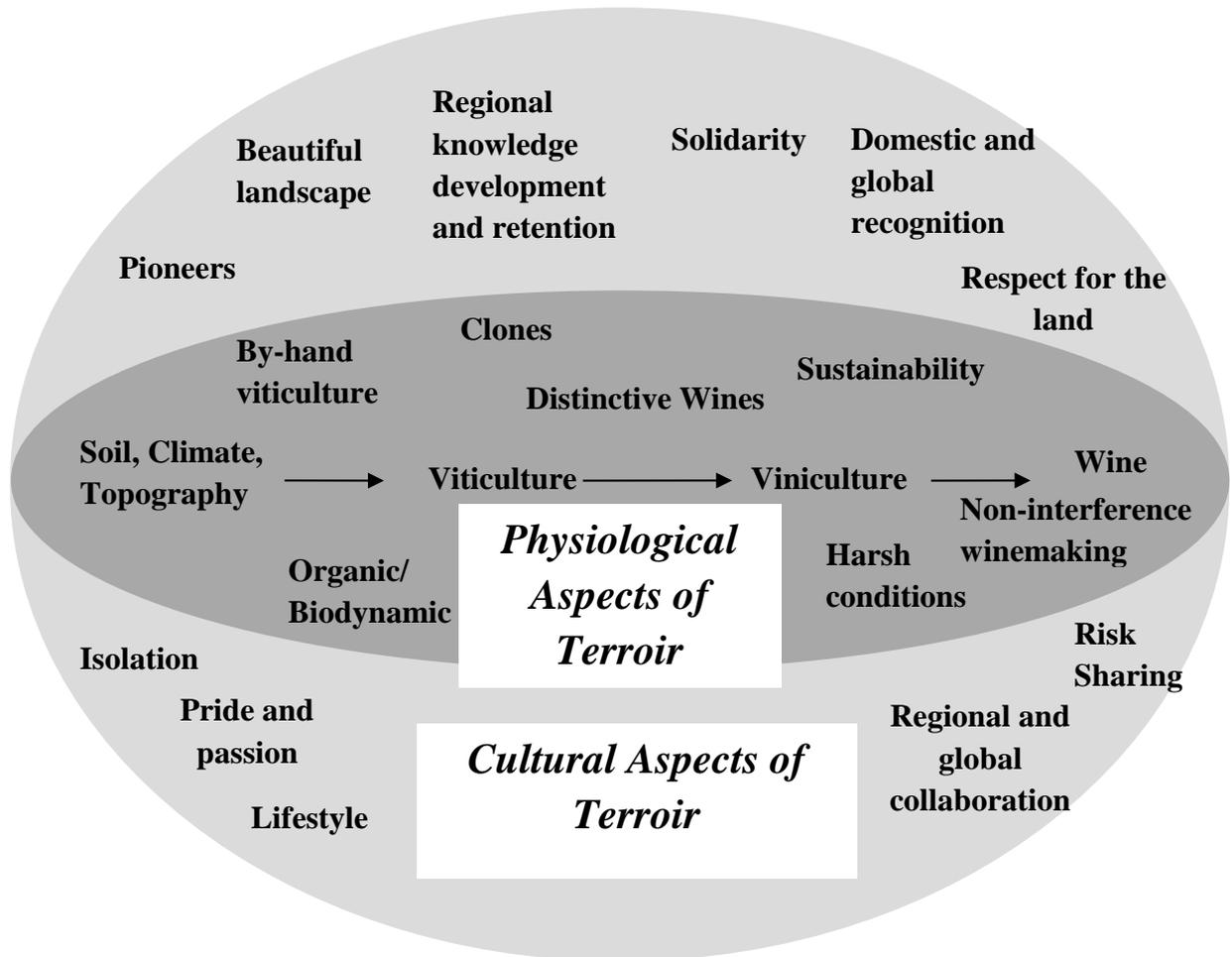


Figure 1. Elements of the Physiological Aspects and the Cultural Elements of Terroir

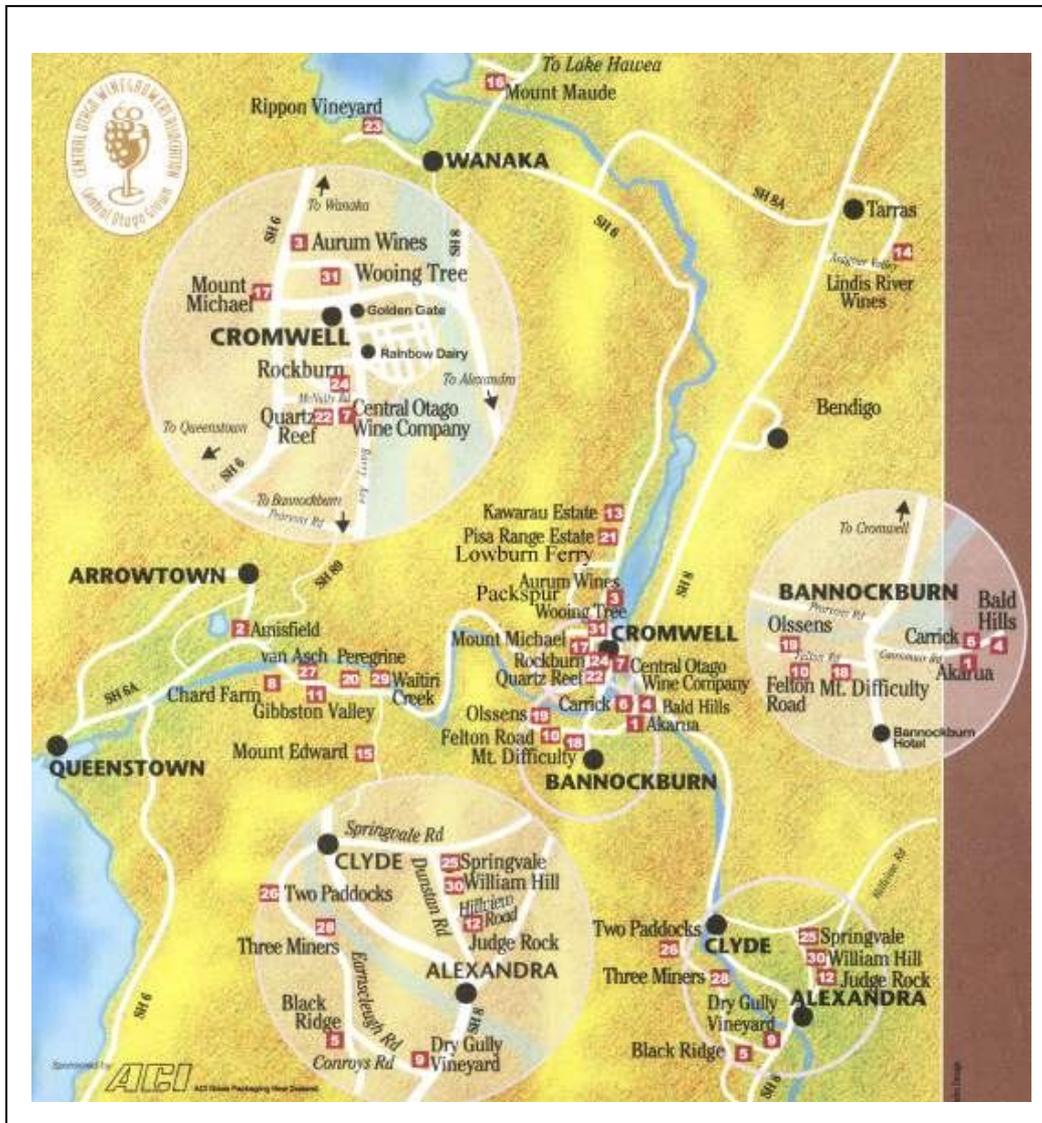
This research has defined the cultural aspects of terroir, which until now has been ignored in the literature. The results are insightful because the cultural or human elements of terroir are important to a region in projecting a distinctive global image of the wine. The participants acknowledged the existence of the physiological aspects of the region but indicated that there was more to terroir than those elements. Their emotional attachment to the place with its beautiful landscape yet harsh climate, the desire to overcome the odds, pride and passion, and the willingness to collaborate to produce premium are embodied in their wines. The integration of the distinctive elements of the physiological and cultural elements of terroir in a region has not been researched previously and significantly contributes to academic research on terroir. Likewise, the findings of this study are useful to management because the factors defining the cultural elements of terroir were determined for a region. These elements are used extensively by the participants in marketing communication to distinguish Central Otago wines in the global marketplace. Regional entities could follow Central Otago’s strategy by linking constituents’ feelings about a place to marketing messages. Future research could include similar studies in different wine areas or conducting research from a consumer viewpoint to establish a different lens on the physiological and cultural elements of terroir.

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Appendix A – Central Otago Wine Map



Source: COWA (2012). *Wine Map: Region*. Retrieved from <http://www.cowa.org.nz/downloads/maps/main-map.pdf> [Accessed 6 June, 2012].

Appendix B

Criteria for choosing participants

1. Experience and expertise in the region. People with a continuum of experience were chosen. It was important for the participants to be knowledgeable about the history of the region and understand the role terroir did or did not play in their wines. However, the viewpoints of newcomers to the regions were significant also, to determine if there were similarities or contrasts between the two groups. Demographically, newcomers ranged in age from 30-45 and people who had been in the region longer from ages 40-70.
2. Represented a continuum of new to old wineries, which typically aligned with smaller to larger production. Differences could exist in the interpretation of terroir and general knowledge of the region among wineries with different production levels, therefore all sizes were included.
3. Represented all of the six sub-regions of Central Otago. Although the study was concerning the terroir of Central Otago, it was important to determine if there were similarities or differences within the sub-regions and gain understanding from all of them. Since there were physical elements impacting wines from each sub-region, it was important to determine if the cultural elements were expressed differently
4. Primarily produce Pinot Noir as that wine varietal is tightly linked to regional recognition. Globally, Pinot Noir is a premium wine often associated with terroir.
5. Produce their own wine and bottle single-vineyard (bottled wines come from one specific vineyard) wines, so they employed vintners who were important respondents in the study. As this is a newly-formed region, not all wineries produce their own wine. The participants needed to have extensive knowledge of their individual wines to enable them to respond to the questions about the meaning of terroir.

Evolution of the Branding of New Zealand Wine: From Country Image to Collective Industry and Market Meaning

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Purpose: *This paper examines the evolution of the branding of New Zealand Wine from a simple country image based on “green” production to collective meaning within the industry and its markets that is associated with heritage, innovation, sustainability and quality.*

Method: *The study draws on our in-depth knowledge of the industry, discussions with industry contacts and secondary sources.*

Findings: *The New Zealand wine industry’s national branding was initially built around the country image of “green” production with the logo “riches of a clean green land”. This has been superseded by a branding strategy that focuses on developing the collective meaning of the brand with the logo “pure discovery” within the industry and its markets. This collective approach to branding involves broader considerations, where the brand is used to facilitate processes that co-create experience and meaning within the industry and its markets. It entails the alignment of a complex set of industry relationships within a network of stakeholders around the value propositions about heritage, innovation, sustainability and quality.*

Keywords: *Branding, sustainability, brand New Zealand Wine, Country-Of-Origin, collective meaning*

1. Introduction

The New Zealand Wine industry is recognised as a leader in sustainable production and this is an integral part of its country-of-origin (COO) branding and quality positioning of New Zealand wine in its export markets. The industry has a bold “green” production policy with an accredited sustainability scheme which covers over 95% of the producing vineyards. The New Zealand industry’s sustainability reputation comes from combining the best of existing practices with innovations and techniques relating to energy, water and agrichemical use. New developments are constantly emerging, including the roll-out scorecard, the Grape Futures project, the Greenlight spray diary tool and the completion of a revised Winery Waste Code of Practice (NZW, 2013). A key aspect of the sustainability programme is to provide the vineyards with the tools to implement best practices. In partnership with Organic Winegrowers New Zealand, the organic focus vineyard project has provided online resources and hosted industry seminars for those wanting to manage the transition of vineyards to organics. This has led the industry to achieve a proactive position to meet changing consumer and regulatory demands in its markets.

While the country image of “green” production plays an important role in shaping New Zealand wine’s strategy, the industry’s recent success involves broader considerations in which “green” production is integrated with its heritage and innovation. In 2007 New Zealand Winegrowers adopted a new logo of “pure discovery” to replace the previous logo of “riches of a clean green land”. The new tagline emphasises the journey the industry has embarked upon as it continues to discover, innovate, improve and diversify. Within this strategy New Zealand Winegrowers has the sustainability mission of “telling the New Zealand sustainability story and building sustainability credentials” (NZW, 2013 p. 14). However this is only one aspect of the strategy and the process of building the collective meaning for brand New Zealand Wine.

The purpose of this paper is to examine the evolution of the branding of New Zealand Wine from a simple country image based on “green” production to a branding that leads to achieving a collective meaning within the industry and its markets based on heritage, innovation, sustainability and quality. Our study of brand New Zealand Wine is built on our in-depth knowledge of the industry, having researched it over some years (e.g. Brodie, Benson-Rae and Lewis 2008; Benson-Rea, Brodie, and Sima, 2013).), discussions with industry contacts and secondary sources (e.g. Deloitte, 2012; NZW, 2013; PwC, 2011; Rabobank, 2012).

To establish the study context the paper provides a brief review of the development of the New Zealand wine industry over the last two decades. We then build a framework to examine the broader role of branding as an integrator for collective meaning within an industry and in its markets. This leads to the development of a network model for national branding. We then apply the framework to brand New Zealand Wine and draw conclusions and implications.

2. Development of the New Zealand Wine industry

The New Zealand industry has enjoyed 20 years of strong growth and innovations, as measured by new entrants, increased production volumes and exports. As shown in Table 1, since 1990 the number of wineries has increased 4-fold and the producing area has increased

6-fold. However at the same time New Zealand wine exports by volume have increase 40-fold and by value they have increased 60-fold.

Table 1: NZ Wine Industry - Key Growth Indicators

Indicator	1990	2013	Change
Number of wineries	131	698	433%↑
Producing area (hectares)	4880	35,753	633%↑
Average yield (tonnes per hectare)	14.4	9.7	-33%↓
Grape tonnage crushed	70,000	345,000	393%↑
Wine exports (million litres)	4	170	4,150%↑
Wine exports (\$million)	18.4	1,211	6,482%↑

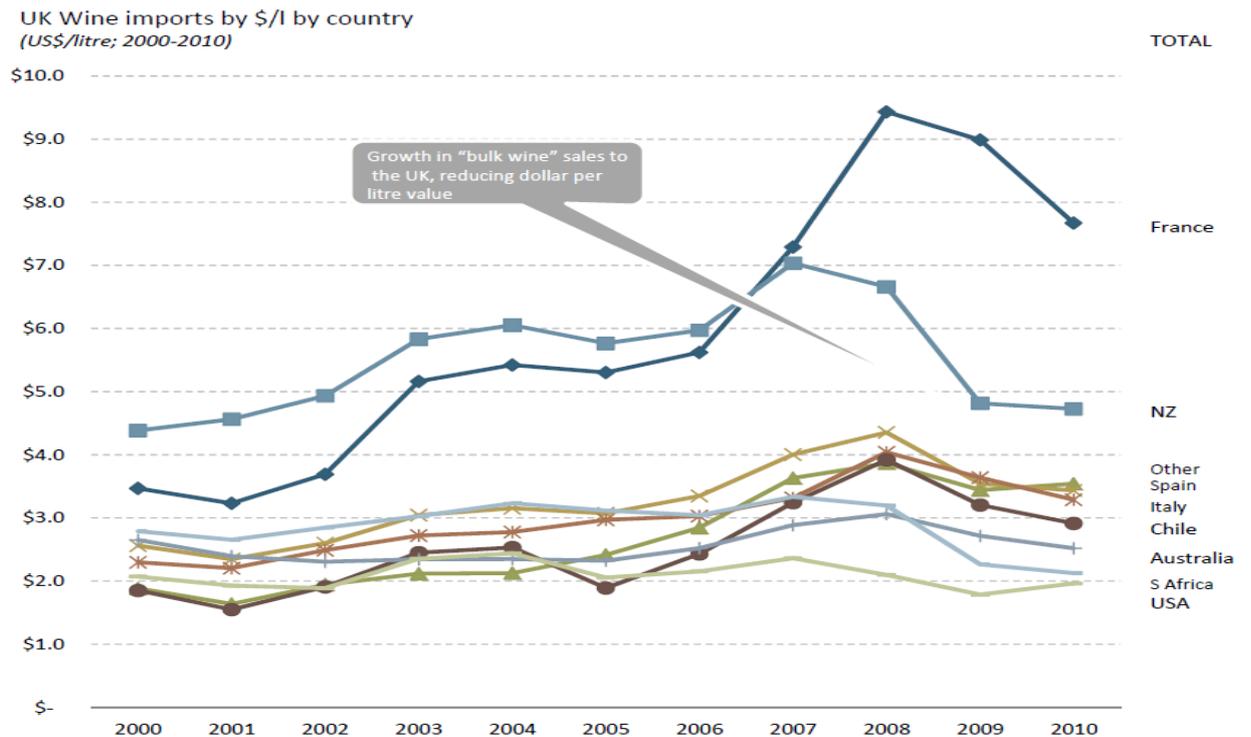
Source: NZ Winegrowers (NZW) Annual Reports, 1990; 2013

The export success has been based on the industry’s reputation for high quality, distinctive wines. The industry relies heavily on exports of a single wine varietal from a single region, Marlborough Sauvignon Blanc, but has recently added new varietal products, such as Pinot Noir and Syrah, which are also achieving significant critical acclaim. These wines are produced in many regions but are being associated with the newer production regions of Hawkes Bay and Central Otago. Because producers have built their capabilities on low production levels and have shared industry learning to achieve product and process innovations, New Zealand wines command premium prices.

A recent review of the industry (PwC, 2011) underlined the importance of the industry’s competitive advantage based on its niche positioning in high quality premium wines. Indeed, it cited a recent audit which found that trade buyers in all key markets very strongly supported New Zealand’s quality positioning, unique wine styles and compelling stories: “You are the world’s best vineyard, producing wines of international quality” (Australian Grocer 2007, quoted in PwC, 2011 p. 7). The strength of New Zealand’s quality position is demonstrated by the industry’s performance indicators in 2013. Wine is now New Zealand’s largest horticultural export by value and its 8th largest goods export. Wine is exported to over 80 countries and has a value \$1.2 Billion (NZ) (NZW, 2013).

In the last decade New Zealand wine imports into the UK have had a price premium of over 20% compared with those of all countries except France (PwC 2011). This favourable price position also exists in the other export markets for New Zealand wine. In 2009 and 2010 the global wine market experienced ‘brutal selling conditions’ (NZW, 2011 p. x) that provided competitive challenges for New Zealand producers’ because of excess supply caused by increased plantings and large vintages in 2008 and 2009. This led to an increase in unbranded bulk and private (own) label wine and a decrease in export prices (Rabobank, 2012). Despite this, New Zealand maintains its relative position in the UK market (Figure 1) which highlights the strength of brand New Zealand Wine.

Figure 1: Competitive Price Position of New Zealand Wine



Source: Coriolis Food and Beverage Information Project 2011

3. Integrating Collective Meaning with Brand Identity and Image

The traditional view of a brand is that it functions as an entity that is an image associated with a trademark. For example the American Marketing Association (AMA) (2004) defines the brand as: ‘a name, term, design, symbol, or any other feature that identifies one seller’s good or service as distinct from those of other sellers’. Underpinning this definition are economic and psychological theoretical perspectives. The economic perspective draws on signalling theory (e.g. Erdem and Swait, 1998), while the psychological perspective draws on associative network memory theory to develop theory about consumer brand knowledge (e.g. Keller, 1993). The entity perspective has been the prevalent approach in branding research in the last three decades, which has largely focussed on consumer goods and consumer choice (Keller and Lehmann, 2006). This has led to the dyadic view where the seller plays the active role building the brand and the buyer is a receiver of brand communications. Academic research for country of origin branding has also focused on a dyadic relationship between seller and buyers where the seller plays the active role (Magnusson, Westjohn, and Zdravkovic 2001a, 2011b; Samiee, 2011).

Recently research about branding has given consideration to broader relational, social, network, experiential and cultural aspects. This leads to perspectives that go beyond the brand functioning as an entity within a seller-buyer dyad. It assumes that the brand also functions as a process to co-create collective meaning (Stern, 2006). In contrast to traditional dyadic value chain perspective the collective meaning co-created within a network in what could be described as a value constellation (Normann and Ramírez, 1993). Research in this area includes brand relationships (e.g. Fournier, 1998), brand communities and social networks (e.g. Muniz Jr and O’Guinn, 2001; Schau, Muñoz Jr, and Arnould, 2009), brand experiences, consumer consumption practice and culture (e.g. Caru and Cova, 2003), co-created brand

experiences (e.g. Prahalad and Ramaswamy, 2004) and the active role of stakeholders creating brand meaning (Hatch and Schultz, 2010; Vallaster and von Wallpach, 2013).

In adopting this broader relational perspective Merz, He, and Vargo (2009) suggest that “brands are co-created by brand communities and other stakeholders as part of a continuous, social, and highly dynamic and interactive process between the firm, the brand and all stakeholders” (p. 331). Brodie, Glynn and Little (2006) also take a broader perspective. They state:

“...brands facilitate and mediate the marketing processes used to realize the experiences that drive co-creation of value. They provide sign systems that symbolize meaning in the marketing network, and hence are a fundamental asset or resource that a marketing organization uses in developing service-based competency and hence competitive advantage.” (p. 373).

We distinguish between three stages of branding. In the first and second stages the brand functions as an entity and in the third stage the brand transitions to function as a process. In the first stage the focus is on creating familiarity and distinctive identity for the trademark that the trade and customers recognize. The second stage builds on the first stage to create a distinctive image that the trade and customers associate with the trademark. The third stage is process-based and integrates Stages one and two. The emphasis thus shifts to branding processes that facilitate collective meaning with a broader network of stakeholders.

Figure 2: Stages in the Branding of New Zealand Wine

	Brand as Trademark		Brand as Image		Brand as Facilitator of Collective Meaning
Objective	Familiarity of trademark by customers and the trade	+	Consistent image with customers and the trade	+	Creating collective meaning within industry & market networks
Logic	Distinctive identity for trademark	+	Distinctive positioning based on brand image	+	Customer & stakeholder engagement that creates collective meaning
Learning	Building recall & recognition	+	Building awareness	+	Customer & stakeholder experiences
Marketing Activity	Communication featuring trademark to customers and the trade	+	Communication featuring image with customers and the trade	+	Facilitating processes to co-create collective meaning within industry & market networks

Source: Adapted from a framework developed by Kaj Storbacka and his colleagues at Vectia Consulting

4. A Network Model for the Branding of New Zealand Wine

The branding of New Zealand Wine has evolved through the three stages outlined in Figure 2. At all stages the central marketing agency, New Zealand Winegrowers, plays an important role. At Stages 1 and 2 the focus is very much on the trade and end consumers with the objective of building a familiar trademark and a distinctive image for brand New Zealand wine. At Stage 3 the focus broadens. New Zealand Winegrowers is required to facilitate the interactive processes within the industry network and the market network that co-creates

brand collective meaning that is expressed as value propositions. The industry network consists of grape growers, winemakers, wine marketers and other stakeholders, while the market network consists of customers, the trade, government agencies, the media and other stakeholders. .

In Figure 3 we develop a framework to examine the marketing activities for the branding for New Zealand Wine. Drawing on Brodie et al.’s (2006) definition, the framework portrays the national brand as a sign system that symbolizes meaning in the industry and market networks in the form of value propositions. New Zealand Winegrowers has the role of facilitating and mediating the interactions between and within the industry network and between and within the market network. Three types of marketing activities are undertaken by New Zealand Winegrowers.

- *Internal marketing* enabling and facilitating the value propositions within the industry network.
- *External marketing* communication of the value propositions to the industry network and the market network.
- *Interactive marketing* delivering value propositions with interactions between and within the industry network and the market network.

Within the industry network there is also the external and interactive marketing activity by wine companies for their individual brands where the national brand acts as an umbrella brand.

Figure 3: Marketing Activities for Brand New Zealand Wine



Creating a strong identity (trademark and image) for the national brand is a necessary condition for the successful national branding. As highlighted in Figure 2 (Stages 1 and 2) this activity is largely with the trade and end consumers. However when the objective shifts to creating collective meaning within industry and market networks (Stage 3) the marketing activity broadens. This leads to a logic based on customer and stakeholder engagement to create collective meaning based on customer and stakeholder experiences. Thus the marketing

activity centres on facilitating processes to co-create collective meaning within the industry and market networks. The implications for conventional brand management in this collective, more community-orientated conception of brands and socially-constructed notions of meaning are far-reaching. This accentuated as social media plays an increasingly important role in marketing activities.

5. Marketing Brand New Zealand Wine

The 2011 strategic review of the NZ industry (PwC, 2011) commissioned by New Zealand Winegrowers has led to a refocus of the industry strategy. The strategy builds on the 2007 “Pure Discovery” branding strategy with the emphasis on innovation, quality improvement and diversification. The new vision or promise for the industry is that around the world New Zealand is renowned for its exceptional wines with the mission to create value for its members and partners. The strategy focuses on sustaining the competitive position of New Zealand wine and to support its profitable growth of the industry. Thus the purpose of the national brand is to integrate identity and image to build collective meaning and hence co-create value between the producers of New Zealand wine, its customers and the network of stakeholders in its domestic and export markets. While the image of a “green” production policy is essential to the positioning of the brand, the development and maintenance of a branding strategy involves broader marketing.

Figures 2 and 3 provide the frameworks to examine New Zealand Winegrowers’ refocused branding strategy. New Zealand Winegrowers’ branding activities involve a combination of internal marketing, external marketing and interactive marketing. Much of the internal marketing focuses on facilitating the wine producers’ ability to produce exceptional wine and enable innovation. The industry body’s marketing and sustainability activities centre on telling the production sustainability story and building sustainability credentials to support and grow the brand New Zealand Wine.

At its core is the communication which focuses on value propositions associated with heritage, innovation, sustainability and quality. External marketing is targeted at industry participants, local wine media and the industry’s representative organisations. The communication pays attention to quality and sustainability for winemakers, effective programmes of collective marketing and careful cultivation of key stakeholders including supermarket buyers and international wine media. The national brand is supported by effective information exchange in production relationships; commitments from winemakers in buyer-seller relationships, and a powerful discourse of shared fate and future in industry relationships. More directly, it is supported by interactive marketing with the collation and dissemination of industry information through the industry website (www.nzwine.com). In addition New Zealand Winegrowers’ interactive marketing activity supports a series of over fifty trade shows and tastings around the world annually. These are partially funded by the levy paid by all producers to New Zealand Winegrowers based on the sale of grapes and wine but many events are “user pays”. Central to this marketing activity is the new logo of “pure discovery”, which is underpinned by the theme of the previous logo of “the riches of a clean green land”.

Identifying the sources of the differential effect for wine branding is complex because of the multitude of relationships that exist between the New Zealand Winegrowers within the industry network (grape growers, winemakers, wine marketers and other stakeholders) and the

market network (customers, the trade, government agencies, the media and other stakeholders). A combination of factors drives the value of wine from the quality of the grapes to the integrity of the vineyard following sustainable practices to the acceptance and rating by the various experts, to the actual taste and use of the wine. All those factors are negotiated because they are subjective and influenced by a host of people and external factors, not just the wine itself.

In its umbrella branding role, the external and interactive marketing for brand New Zealand Wine comprises a number of elements centred on external marketing communications. In Figure 3 we illustrate this umbrella branding role. What is important to observe, in terms of brand identity and logo, is that there is no connection between the logo for New Zealand Wine and the associated winery brands, event and varietal brands, regional and sub-regional brands, and the allied brands. Where the connection between brand New Zealand Wine and the related brands comes from is with the collective interest and the collective meaning that comes from the discourse about heritage, innovation, sustainability and quality.

Figure 3: Umbrella Role of Brand New Zealand Wine



6. Conclusions and Implications

We have argued that the dramatic success of the strategy for brand New Zealand Wine has come from a strategic understanding and intentional implementation of the umbrella role of branding in the industry. New Zealand Winegrowers recognises that branding activities extend beyond developing a distinctive identity and image based on the “riches of a clean green land”, to a process that is based on collective interest that develops the collective meaning around the logo “pure discovery”. Here the branding involves broader considerations where a strong brand identity and image are used as a sign system to facilitate processes that co-create experience and collective meaning.

The emerging diversity of interests within the New Zealand industry make it essential to understand the different sources of value creation for the different players – particularly those around size and scale, marketing strategy and positioning in particular segments of the market. This leads to a complex brand positioning where brand New Zealand Wine is part of a network of other brands in which it acts as an umbrella brand for a broad and diverse range of enterprises where the meanings and experiences of the brand New Zealand Wine are co-created. These emerge from a network of relationships that New Zealand Winegrowers has with its industry network and its market network. Our analysis highlights both the interdependencies among those involved and the potentially different investments in, and requirements of, a national, umbrella brand by different players. Thus while the umbrella brand strategy is articulated as being targeted at key export markets, its influence is far broader and more complex.

In the Appendix of this paper we present an initial exploration of the aligning role that the umbrella brand New Zealand Wine plays in co-creating value and hence financial return within the network of negotiated relationships (Brodie, Benson-Rea, and Lewis, 2008). The framework distinguishes between “places” linked to the brand (destination countries, distribution channels and retailers), “things” linked to the brand (events, causes, third party endorsements), “people” linked to the brand (employees, endorsers) and other brands. Of particular relevance are the implications of connections among and with “other brands”.

Our framework provided in Figure 3 shows how New Zealand Winegrowers acts as the facilitator for a multitude of network interactions. New Zealand Winegrowers plays the essential coordinating role in enabling, making and delivering the value propositions associated with heritage, innovation, sustainability and quality. New Zealand Winegrowers has the challenge to balance marketing investments in external marketing that communicate the value propositions and internal and interactive marketing which enables and delivers of the value propositions about the heritage, innovation, sustainability and quality of New Zealand Wine.

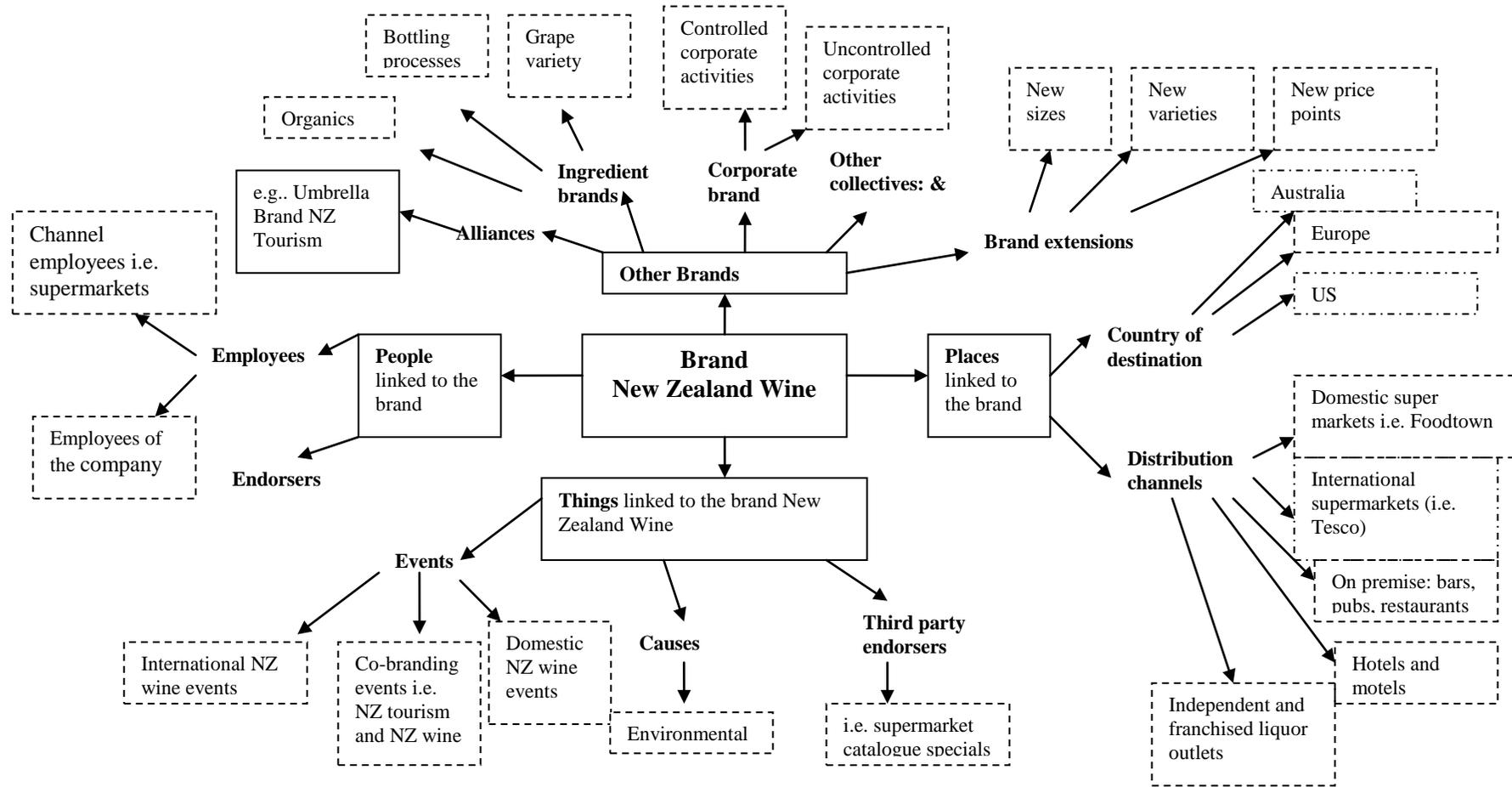
A key consideration is to understand the brand governance mechanisms (Hatch and Schultz, 2010) that lead to collaboration within these value networks, where heritage plays an important role in achieving cooperation. The competition between large and small, local and multinational-owned companies needs to be blended with the realisation that the success of the industry is based on collaboration leading to cohesion and coordination within the value networks.

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Appendix: Sources for the Co-creation of Value for the brand New Zealand Wine



Source: Brodie, Benson-Rea, and Lewis (2008)

EXPERIENCING A PLACE AND APPRECIATING ITS WINE: HOW DOES ATTITUDE TOWARD PLACE TRANSFER TO ITS PRODUCTS?

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INTRODUCTION

Tourism is a multi-billion industry (by many measures the largest single industry in the world) and is growing globally. Nowadays customers have a large number of choices of tourist destinations, and these choices are continuously growing. A key question for any tourist region is then how to build and sustain strong and meaningful relationships with visitors, especially when the latter have an ever increasing number of choices and exhibit variety-seeking behavior. What is the best way to communicate with customers to build a bond? The current study considers customers attitudes regarding a region's attributes in terms of offering an experience that is high in perceived quality vs. high in pleasure elements, and how this translates into visitors' relationships with products from that region and the likelihood of recommending the tourist destination to others.

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THEORETICAL BACKGROUND

Our conceptual framework is illustrated in Figure 1. Based on hedonic and utilitarian theory (Hirschman and Holbrook, 1982), we posit that customers perform consumption behaviors based on two basic reasons, which are quality and pleasure driven. The study presented here investigates the idea of transferability of attitude toward a place on perceived value for money and its outcomes.

Our definition of quality and pleasure are based on a goal-based-approach. We argue that customers primarily consume products or services for two main reasons: Quality and Pleasing. “Quality” refers to the extent to which customers perceive a destination to be high on rational quality dimensions such as , while “Pleasure” refers to the emotional, aesthetic, experiential and enjoyment elements arising from visiting the destination (Alba and Williams, 2013; Batra and Ahtola, 1991, Chitturi et al., 2008, Chitturi et al., 2007, Eagly and Chaiken, 1993, Eagly and Chaiken, 1998). After evaluating a destination’s quality and pleasure dimensions, customers will form an attitude pertaining to that place’s value for money, and that value will in turn determine customers’ wiliness to support products from

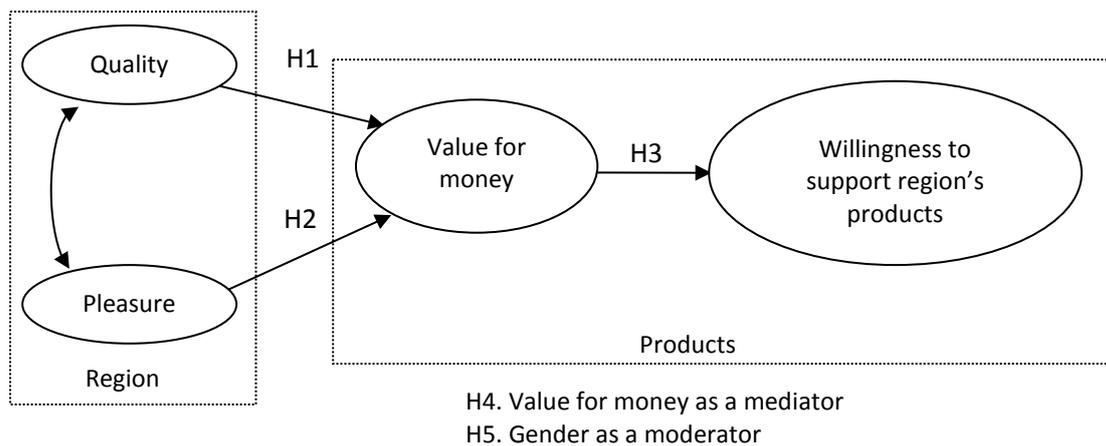


Figure1. Region-to-Product Model

that region.

Salient Associations and Transferability of Attitude. Extant research suggests that attitude can transfer from one attitude object to another attitude object. One prominent example of the transferability of attitude is brand extensions. Both direct and indirect experiences with a brand (the attitude object) can determine a customer’s attitude toward a brand. Dove, for example, positions itself as “Dove is not soap” because it contains ¼ moisturising cream. As a result, Dove’s image is that of a nourishing soap bar. This message impacts the whole soap bar industry because Dove is a first mover with regard to adding new attributes to a soap bar. Also, the Dove brand was successfully extended into other categories, such as the hair care and skin care categories, where the attitude was successfully transferred. In a similar fashion, we posit that attitudes toward a region’s attributes (Quality and Pleasure) can also transfer to the region’s products. Much research has focused on attitude transferability

from products to products, or brands to brands. However, this is the first study to focus on transferability from places to products.

Country-of-origin Effect. Schooler (1965) argues that one of the problematic issues for international marketers is “foreignness” of the products or services, which can affect how the product is regarded in different countries. Verlegh and Steenkamp (1999) suggest that the country of origin can affect evaluations or biases against particular regions. For example, customers may display more favourable responses to a Swiss made watch compared to others. Country-of-origin effects are based on biases held toward a specific region. In contrast, the region-to-product effect derives primarily from associations between a region and its products. And these associations can take many forms, not just that of a bias.

Therefore, we hypothesise that attitudes toward quality and pleasure derived from visiting a specific region have a positive impact on perceptions of value for money of that region (Hypothesis 1 and 2). The higher the extent to which customers perceive a region to represent good value for money, the higher the willingness to support the region’s products (Hypothesis 3). Finally, we also investigate the role of value for money as a mediator (Hypothesis 4) and gender as a moderator (Hypothesis 5).

METHODOLOGY

We generated an extensive list of items to capture a customer’s attitude toward a regions’ attributes. Based on Orth and Tureckova (2002) 34 motivational, attitudinal and other variables representing cognitive and emotional states of mind with respect to “place experience” and “attitudes towards local products” were employed. According item batteries have been developed and successfully applied in previous studies by Zins (1999). The items tapped on a variety of aspects pertaining to a regions’ attributes focusing on “value for money” and “willingness to support region’s products”. Previous batteries (Zins, 1999 and Orth & Tureckova, 2002) were adopted and, after initial pretesting, the factors were reduced to six items, which effectively capture the quality and pleasure aspects of a region. We tested these six items with 3323 customers, who voluntarily completed the questionnaire. To increase the robustness and generalizability of the scale, the data collection effort took place in 14 regions in 8 different countries. Specifically, customers from 14 wine regions were asked to answer whether they agreed or disagreed with a number of statements regarding the wine regions they had visited. All participants evaluated the items based on 7-point Likert-scales anchored by “strongly disagree” (1) to “strongly agree” (7). Pleasure was measured using a seven-point three-item Likert scale based on Mehrabian and Russell (1974). These included “happy” (1), “unhappy” (7); “pleased” (1), “annoyed” (7) and “contented” (1), “melancholic” (7).

RESULTS AND DISCUSSION

Measure Results. Data were collected across 14 wine regions. The total respondents were 3323 and the completed and usable surveys were 1,111 in total. Forty-eight percent were male, and the average age was 42 years (s.d.= 14.90; range: 18-87). Fifty-two percent were

female, with an average age of 39 years (s.d.= 14.35; range: 18-86). Each respondent answered questions pertaining to one specific wine region (the region they visited). Before completing the survey, the respondents were asked how well they knew the wine regions. We wanted to capture the associations made between the destinations and the products of the region, by transferring the attitude toward a region's attributes and the attitude regarding the value for money from the regions.

We conducted a factor analysis resulting in two factors with two fixed factors. In order to confirm the robustness of the scale, we chose the items that loaded higher than .70 on their constructs or that displayed little cross loadings on other factors. Table 1 exhibits results from the varimax rotated factor pattern and loadings. The first factor consists of 3 items capturing the quality dimension of the regions. Three items explain the extent to which consumers evaluate the perceived quality of the regions they had visited. We named this factor as "Quality". The second factor stems from three items describing the pleasure and enjoyment experience derived from the visited region. We labelled this factor as "Pleasure".

We conducted two confirmatory factor analyses (CFAs) of the six remaining items, to confirm the two factor model of the region-to-product model. The first model allowed the two factors (Quality and Pleasing) to correlate ($r = .74$ and $\chi^2(1) = 9.379$); the second model forced the two factors to be perfectly correlated ($\chi^2(2) = 54.947$). The change in Chi-square $\Delta\chi^2(1) = 45.568$; $p < .000$) reveals that the first analysis fits the data better, confirming the two-factor region-to-product model. In addition, we also tested the reliability of the two factors separately. The Cronbach's alpha among the three items of Quality and Pleasing suggest that both factors have good reliability ($\alpha_{\text{quality}} = .718$, $\alpha_{\text{pleasure}} = .686$, respectively).

Test of H1, H2, and H3. To test the region-to-product model, we use structural equation modelling (SEM) with AMOS 21.0. The results confirm our hypothesis. Quality and Pleasure have a positive impact on perceptions of a region's value for money ($\gamma = .27$, $p < .001$; $\gamma = .27$, $p < .001$, respectively). Then we investigated the relationship between value for money and willingness to support a region's products, and the result confirm the hypothesized positive relationship ($\gamma = .248$, $p < .001$).

Test of H4. We adopted the steps recommended by Zhao et al. (2010) and Baron and Kenny (1986) to test the mediation effects. In addition to testing for indirect effects we adopted the procedure from Preacher and Hayes (2008). The casual variables were Quality and Pleasure; and the mediating variable was value for money. The outcome variable was willingness to support the region's products. All coefficients presented here are unstandardised.

The estimated direct effect of Quality on willingness to support a region's products, controlling for value for money, was not significant ($\gamma = -.175$). Therefore, it was eliminated in the mediation analysis. In the next step, we tested the estimated direct effect of Pleasure on willingness to support a region's products, controlling for value for money, and this was significant ($\gamma = .548$, $p < .01$). These results indicate that the total effect of Pleasure on Williness to support a region's product is significant ($\gamma = .631$, $p < .01$). Pleasure is significantly predictive of the hypothesised mediating variable, value for money $\gamma = .298$, $p < .01$). When controlling for Pleasure, value for money was significantly predictive of willingness to

support a region's products ($\gamma = .278, p < .01$). Willingness to support a region's products is linked to Pleasure and value for money, with adjusted $R^2 = .34$. The Sobel z score was significant. ($z = 3.09, p < .01$). In conclusion, the indirect path was significant, the indirect path of Pleasure on willingness to support a region's products through value for money was statistically significant, and therefore, the effect of Pleasure on willingness to support a region's products was partially mediated by value for money. Lastly, there was no mediation effect of value for money on the Quality-willingness to support a region path.

Test of H5. In order to test whether gender acts as a moderator, we performed SEM using a multi-group latent variable modelling approach with gender as the grouping factor and investigated the change in the effect of Quality and Pleasure on value for money, and perceived value on willingness to stay with the brand. In this data set, we had 536 male respondents and 575 female respondents. As shown in table 3, the results suggest that Quality had a positive effect on perceived value ($\gamma = .36, p < .01$), but Pleasure has no significant effect on perceived value ($\gamma = .14, p > .05$). Perceived value, in turn, has a significant impact on willingness to support a brand ($\gamma = .45, p < .001$) in males. For females, the results showed that Quality and Pleasure had a significant impact on value ($\gamma = .20, p < .001$; $\gamma = .37, p < .001$, respectively), and value had a significant impact on willingness to support the brand ($\gamma = .52, p < .001$).

Control Variable. To estimate changes in willingness to support a region's brand is not driven by consumer inertia, we employed regions in the data collection process as a predictor. The specific region had a positive impact on willingness to support a brand ($\gamma = .11, p < .001$)

CONCLUSIONS AND IMPLICATIONS FOR THEORY AND PRACTICE

Results from this study provide support for the idea that attitude toward a region's attributes (Quality and Pleasure) has a positive impact on the perceived value for money of its regional products. This confirms our region-to-product model and shows that visitors' associations with a region translate into associations about products from that region. The association between regions (place) and its products is thus supported. In addition, attitudes toward a region's attributes strengthen a customer's willingness to support the region's products. Lastly, men and women vary in their responses across the model.

Theoretical Implications. This research makes three important theoretical contributions. Firstly, the results support the region-to-product model. This means that the attitudes toward a region or place can indeed transfer to products from that region. This encouraging findings opens avenues for future research, examining the value added created by a region's products and the inter-linkages between tourism and the marketing of a region's products. Secondly, we found that the impact of Pleasure on willingness to support a region's products was partially mediated by perceptions of value for money. In contrast, the mediation effect was not found in the relationship between Quality and willingness to support a region's products. Lastly, we found that gender plays an important role in the attitude transfer process. During the process, men only take quality into consideration when making judgements about the products. However, women consider both Quality and Pleasure in their attitude transfer process.

Managerial Implications. This study makes a number of significant contributions to the tourism industry, some of which have already been discussed above. We believe that a particularly interesting implication is the fact that tourist destinations which mainly target male tourists should consider positioning the place heavily on the quality offered by the destination. This is because male tourists tend to consider quality as an important factor in evaluating value for money. However, tourist destinations which mainly target female tourists could consider providing information about both Quality and Pleasing dimensions.

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HANDLE “COUNTRY OF ORIGIN EFFECT” WITH CARE: LESSONS FOR RESEARCHERS AND MANAGERS

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Abstract

Purpose

This study explores the country of origin effect (COO) of New World versus Old World wine producing countries on consumer preferences. Previous research argued that COO matters in this industry and influences consumer preferences and perceptions. Our study extended this research hypothesising that COO matters in general and varies according to the economic development of the wine producers' location.

Design/methodology/approach

We conducted a survey questionnaire containing demographic questions and a series of Likert Scale questions. SPSS was used to carry out statistical analyses.

Findings

Our results however did not support this hypothesis and showed COO to be the second most important factor after price that influenced consumer preferences for both New World and Old World producers, with no significant statistical difference between them.

Practical Implications

Our study offers new insights for researchers and managers into the debate of the importance of COO on consumer preferences, suggesting that the COO should be handled with care in an industry that is facing intense global competition and new competitors from emerging markets.

Keywords

Country of Origin, Wine Export Markets, Consumer Preferences, International Strategy

1. INTRODUCTION

Since early this century, New world wine producers (i.e. Non-European) have experienced changes in their market share; this is true especially in the UK, which is one of the most competitive and largest wine importing markets in the world (Deshpande et al., 2010). According to Anderson et al. (2003) the tendency for Non-European countries to produce and export wine is continuing to grow, Australia standing out as the leader in terms of export volumes among the New World producers (Felzensztein and Rodriguez, 2013). However, other New World countries, particularly from the southern hemisphere, Chile, Argentina, and New Zealand are also positioning their products in key wine markets using innovative marketing strategies (Felzensztein et al., 2013).

Other conditions have changed in the wine industry in addition to the increasing importance of New World countries' market share. First, there has been a decline in wine consumption per capita in traditional markets whereas the opposite has occurred in emerging markets (Anderson, 2002). According to Kolyesnikova et al. (2008) this can be explained by the fact that emerging economies have performed better than developed economies in the last decade. Secondly, the supply chain, especially in the British market, has become more orientated towards the private label brands (Green et al., 2003; Ritchie, 2008). Finally, the "Country of Origin" and "Grape Variety" have become important factors affecting consumers' choice of wine (Felzensztein and Dinnie, 2005).

In line with these developments, this research analyzed the COO effect to determine if it can be considered the fifth element in the marketing mix for imported wine (Felzensztein et al., 2004) and to contrast different impact of COO among producers located in 'New World' versus 'Old World' economies.

The study is focused on the UK market as it is one of the largest wine markets in the world (Deshpande, et al., 2010; Merino, 2010; Ross et al., 2010). Although the UK has very little local wine production, it is one of the most important wine markets in the world, importing almost 900 million litres per annum. Additionally, the volume sold has risen by 3% during the last decade and the trend is favorable to New World countries¹ (Merino, 2010). Chile is an important element of this trend as the UK is one of the largest importers of Chilean wine² (Merino, 2010). Off-trade dominates the market accounting for 81% of total retail sales, mainly through supermarket chains like Tesco 32%, Sainsbury's 22%, Asda 13% and Safeway 12%. The remaining 19% is on-trade, through more than 133,000 outlets (Ross et al., 2010). The distribution channel could be an important factor in consumer preferences for imported wine and so the UK market is a useful focus for this study.

A survey of wine consumers in the UK market was used to collect primary data. The major concern was to reach people who had specific wine preferences, opinions and perceptions related to COO effects. The survey was conducted between September and October 2013. Results show that *price* was the only variable which showed statistical significance in the regressions conducted. The same result was found in the one-way ANOVA conducted on wine consumers' knowledge and influential variables. This suggests the UK wine market is *price sensitive* for Old World wines. A full discussion is presented in our results section, concluding with practical implications for managers and policy makers. We consider that our results and conclusions are not only important

¹ Chilean wines have 9.4% of the market volume and 9% of value. New Zealand and Chile are the fastest growing importers in terms of sales, with 38% and 26%, respectively.

² The UK market receives 23% of all Chilean wine exports and 17% of all sales (measured in volume).

for researchers on COO, but also for managers dealing with international marketing strategies in agribusiness industries, especially those located in emerging economies. Next we present our review of the current theoretical literature on the effect of COO and its influence on consumer preferences and our proposed theoretical model. Finally, results and analyses of our field research as well as conclusions and implications are provided.

2. THEORETICAL BACKGROUND

2.1 New emerging players in the wine industry

In recent years there has been a rapid increase in wine exports from New World producers. Particularly in the case of Argentina and Chile who are now out-competing countries such as Australia, South Africa and New Zealand (Felzensztein et al., 2013). According to the latest figures, Argentina³ and Chile⁴ rank the 5th and 8th largest producers of wine and rank the 9th and 5th largest exporters of wine (Felzensztein, 2011). However, differences exist between these countries, especially in export behavior. Argentina's internal market remains the primary destination of its production and its main export markets, in terms of volume, are the USA, Paraguay, Russia and Canada. Chile on the other hand exports most of its production to around 150 countries, including the UK, USA and Canada.

2.2 Marketing in the wine industry

Wine product quality has a considerable impact on consumer behavior. Most of the quality cues are conveyed through the packaging and label. Brand origin is perceived by consumers as a key indicator of quality. Previous studies have shown that consumers rank vineyard location among the most important details on the label (Bruwer and Johnson, 2010). Hence, if the geographical area in question enjoys a positive reputation, then this information alone will convey quality to many consumers. For example, in the USA the esteem attached to California has been exploited by wine producers for many years (Felzensztein and Deans, 2013).

The fact that wine consumers respond to marketing based on place is widely acknowledged. The growing demand for region-of-origin information has led to a significant increase in the number of American Viticultural Areas (AVAs) being created. AVAs serve to define grape-growing regions by geographical features, and are felt by the wine industry to be more appropriate than the use of state or county boundaries used previously. In order to be granted AVA status, the region's name must be known locally or nationally. While an AVA signifies grape source, analysts point out that no other indication of quality is suggested (Bruwer and Johnson, 2010).

The ideal country and brand image would therefore be one which could be linked with the most relevant variables for consumers (price, promotions, recommendations, grape variety, country of origin, etc.) in the most important markets. Herrera (2009) noted that the key for a successful market entry is a strong proactive attitude, long-term commitment to the market, conscientious follow-through of exporting effort, marketing and promotion, adaptation to competitive local price points and margins and good customer services and terms of payment.

2.3 Country of origin and consumer preferences

Definition of Country of Origin

Based on the literature review, COO can be defined as the role of the country context as a dominant antecedent to the origin effect of the product, usually through its role on the formation of country associations and "image". A country context has several

³ Argentina exported 283 million litres in 2009, which represents an increase of 32% over world's 2008.

⁴ Chilean's wine production is an 8% of the global international wine market.

dimensions and so the COO effect can be studied in its institutional, cultural, economic, and technological environments. Authors have either focused on the economic context (i.e. developed economies vs. emerging and developing economies) or various aspects of the cultural context of countries. Consequently, a gap exists in COO research as few authors have considered the impact of several context dimensions. Thus the COO effect often functions as a powerful aspect of a brand's image and is often particularly significant in the marketing of wine.

Consumers around the world are now faced with a broad choice of wine brands and the COO effect is readily acknowledged as a key differentiator able to positively influence the equity of a brand (Felzensztein et al., 2014; Felzensztein and Dinnie, 2005). Moreover, in some nations the effect has developed further and the region-of-origin has become increasingly more important. France provides a perfect example of this shifting tendency, with Burgundy and Bordeaux recognized as indicating a more precise identification of brand source (Locksin et al., 2006).

Felzensztein et al. (2004) and Felzensztein and Dinnie (2005) explain the importance of COO as a factor of consumers' wine preferences. Felzensztein et al. (2004) noted that COO may be the fifth element of the traditional marketing mix and therefore affects international marketing strategies for imported products and consumers' perception of them in foreign markets. Also, Felzensztein and Dinnie (2005) proposed that the COO cannot be seen as an isolated factor and it is therefore necessary to include other attributes such as price, grape variety, recommendations from retail assistants, word of mouth and promotional activities at the point of sale.

The importance of the COO

The COO effect has become an important topic for international marketing researchers in recent years. For example, the *International Marketing Review* received a high number of paper submissions that deal with the COO topic, and in recent years, has published many of these articles. Similarly, the *International Marketing Review* has devoted two special issues to the topic of COO (volume 25, issue 4, 2008 and volume 27, issue 4, 2010), and a paper addressing an important COO-related issue (Riefler and Diamantopoulos, 2007) received a best paper award.

Recent COO contributions have been critical of the research approaches used in the COO field, arguing that COO may not be that important after all (Samiee et al., 2005). This has led to questioning the work of COO researchers suggesting they are wrong in their methods and the questions they are seeking answers to (Samiee, 2009). However, two legitimate research streams still exist; whether COO has negligible or significant effect on the behavior of consumers and organizations and the effect of COO on the overall success of companies and countries. Research to date has produced two different views of the importance of the COO effect in consumer behavior in the wine industry.

On one hand, there is a group of researchers that defend the importance of the COO in consumers' consumption behavior. Magnusson et al. (2011_a) argue strongly that consumers' perceptions of the country that they believe a brand to originate from affect their attitudes towards the brand, regardless of whether these perceptions of brand origin are accurate, and that this has implications for managers who may need to manage the country of origin image within their broader marketing strategy. Further, Magnusson et al. (2011_b) offer guidance to marketing managers, confirming that COO is an important research domain. A similar view is defended by Diamantopoulos et al. (2011) who determine the relative importance of country of origin image and brand image in terms of consumers' intentions to buy specific Chinese and US brands. The authors conclude that their findings show that the COO is an important driver of brand image and, as such, the country of origin image drives purchase intentions indirectly through brand

image. Indeed, Diamantopoulos et al. (2011) believe the COO research criticism is largely unfounded, and the COO is a relevant construct worthy of continued research activity.

On the other hand, some researchers state there are other notions more important than the COO to determine consumer behavior. For example, Samiee (2011) suggests that the notion of Brand Origin (BO) is a more valid issue in terms of managerial importance, overcoming many of the weaknesses that the COO poses. Samiee et al. (2005) defined BO as the consumer's ability to correctly identify where a representative group of widely distributed and generally well-known brands have originated. They go on to argue that the big question that researchers need to focus on now is whether COO or BO actually influence consumers' behavior, and to construct research designs that are can generate valid insights into COO/BO issues. Similarly, Usunier (2011) believes that researchers should refocus on the issue of BO, and its associated notions, such as country of brand, brand origin recognition accuracy (BORA), and confidence in brand origin assessment. Particularly, he argues that this shift should occur at the expense of traditional COO notions such as country of manufacture and country of design.

Studies on different dimensions of the COO effect

Despite the discussion described above, our view is that research on different dimensions of the COO is important in understanding consumer behavior, particularly in agribusiness and especially the wine industry. Perrouy et al. (2005) noted that consumers can be influenced by a country's strengths and weaknesses as well as the perceptions of a country's traditions, culture, economic and political situation. Therefore, quality distinction between countries can lead to price differentiation and premium wine status. Kolyesnikova, et al. (2008) reported consumers' attitudes towards "*local wines and region effect*", noting that new and small producers' effect do matter in the wine industry.

Dimara and Skuras (2005) noted that "...consumers are increasingly anxious to know where products come from..." (p. 91). For example, the origin (vineyard location) of a wine was rated second highest (65 percent response) by consumers among items most frequently sought by them on wine labels. Later work by Goodman et al. (2007) shows that the origin of wine ranked fourth in importance by USA retail store consumers. Thus, there is a shift towards the increasing importance of the (branded) origin of wine. In a related study, Bruwer and Johnson (2010) explored different levels of place-based marketing in the form of region of origin strategies used by wineries in their branding efforts. The overall aim was to obtain insights into wine consumer dynamics such as product involvement level, consumption frequency and differences between segments on the basis of gender and age from a regional branding perspective. The data was collected using a highly-structured online survey of wine consumers across the USA. Their findings suggest that consumers use regional branding cues, information and images in their assessment and valuation of 'competing' wine labels. Almost without exception, the addition of regional information on a wine label increased consumer confidence in the quality of the product.

A number of other dimensions have been studied that relate to COO effect.. Egan and Bell (2002) studied the "*effect of country image*" stating that it affects international marketing strategies for imported products and consumers' perception of them in foreign markets. Also, Edwards and Spawton, (1990) studied the effect of "*pricing*". This effect is important as it is important to reduce the post purchase cognitive dissonance and price is an attribute valued by wine consumers. Keown and Casey (1995), Barber et al. (2009), and Hollebeek et al. (2007) identified the factors "*purchasing behavior*", "*value for money*", "*price*" and "*grape variety*" as important

choice criteria for consumers in the UK. Lastly, the work of Moon and Jain (2002) concluded that the “advertisement” combined with the COO can influence consumers in terms of national products, which can produce a strong effect in strategic marketing strategies.

The literature relating to consumers’ behavior towards “wine brands” (Gluckman, 1990; Lim et al., 2001; Thakor et al., 2003) is key in the current study as “brand awareness is the first and simplest base of brand equity in wine” (Lockshin and Spawton 2000, p. 75). More recently, Bruwer and Johnson (2010) examined place-based marketing and investigated how including region and/or sub-region of product origin on wine labels impacts on consumer perception of product quality and brand equity. The study was carried out on behalf of the Sonoma County Grape Growers Association with the key aim being to determine the impact of including the Sonoma brand name on product labels. The findings confirmed predictions about how certain demographic aspects relate to knowledge and involvement. Previous work had identified that consumers believed the inclusion of the Sonoma County origin on wine labels greatly increased their expectation of quality. The authors point out that combining place names on a label does not guarantee that consumers will anticipate superior quality in all cases. Hence some regions enjoy a more positive image than others, so producers should be wary of making assumptions about what consumers will infer from the information on the label. Indeed, highly involved individuals are more likely to employ brand-based cues in their decision making. Bruwer and Johnson (2010) therefore urge marketers to target this group rather than those identified as low involvement consumers. Another key recommendation is that wineries should exploit the brand power of the regional name when the image is positive. They also suggest applying the study in other industries, such as food. Including a broader sample of consumers in future work could allow a generalization of these results.

3. HYPOTHESES

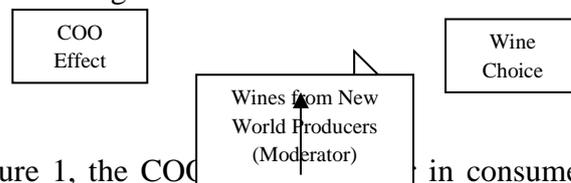
The extant literature and context of our study has highlighted important variables and influential factors for consumers when choosing their wine. It also highlights the differences in perception for wine consumers, with the COO being one the most influential factors and therefore a fundamental marketing tool in the wine sector with special benefits for the growth of national and regional economies. Based on the review of previous studies, we propose the following hypotheses:

H₁: COO is one of the most significant factors for consumers when choosing wines.

H₂: COO is more important when choosing wines from New World producers than from Old World producers.

Our two hypotheses are reflected in the following theoretical model:

Figure1. Wine Choice Theoretical Model



As shown in figure 1, the COO Effect influences consumers’ wine choice behavior. Moreover, in cases where wines are imported from New World producers, the COO effect grows in importance in consumers’ wine choice behavior.

4. RESEARCH METHODOLOGY

The method used to collect the primary data was a *mail survey* administered to wine consumers in the UK market. A major concern was to reach consumers who had their

own wine preferences and opinion/perceptions related to COO. According to Fink (2003) and Bruwer and Johnson (2010) some of the advantages of using a survey for this type of study include the possibility of reaching a representative sample of the population. The survey was conducted in the UK between September and October 2013 and the questionnaire format was “Structure-non-disguised”. This is the preferred format for descriptive research as it provides a standard method for respondents ensuring they all answer the same questions (Oppenheim, 1992). The questionnaire was developed based on COO studies (Felzenstein, 2004; Felzensztein, 2005) and our proposed hypotheses.

Measurement’s scale and Analysis

For constructing our measurement scales we based our work on Felzensztein et al. (2004) but added new wine attributes, factors and communication tools from Felzensztein (2005), Cohen (2009), Cohen et al. (2009), and respondents’ feedback from the pre-test questionnaire. Consumers’ preference data was obtained using a five point Likert scale. Respondents had to indicate their wine preferences of producer countries⁵ on a scale from “1: very much preferred” to “5: not preferred at all”. Regarding wine quality, value for money, well-known brands and reputable producers, respondents had to give their perceptions on a five-point Likert scale from 1: “completely agree” to 5: “completely disagree”. Influential factors and communication tools questions followed the same scale⁶ from 1: “very important” to 5: “not important at all”. A “Check List” was used to gather demographic data.

Statistical analysis was conducted using SPSS. Linear Regression was used to estimate coefficients of the equation, involving all the independent variables considered in this case that best predict the value of the dependent variable (Langdrige, 2004). To follow our proposed model and hypotheses it was necessary to compute new factors, which were separated in:

- Mean of New World Wines preferences (NWW)
- Mean of Old World Wines preferences (OWW)
- Mean of NWW and OWW perception as premium products, value for money, brand awareness, producer country reputation.

With these factors it was possible to run several regressions where the *dependent variables* were NWW preferences and OWW preferences and the *independent variables* were the most important influential factors according to literature. These factors are price, country of origin, region of origin, grape variety and brand. The followings are the regression models constructed for these factors:

$$\begin{aligned} \text{NWW preferences}(\text{mean}) &= \text{COO}_{nww} + \text{Price}_{nww} + \text{Region}_{nww} + \text{Grape}_{nww} + \text{Brand}_{nww} \\ \text{OWW preferences}(\text{mean}) &= \text{COO}_{oww} + \text{Price}_{oww} + \text{Region}_{oww} + \text{Grape}_{oww} + \text{Brand}_{oww} \end{aligned}$$

Other *independent variables* were the new factors created in terms of new and old world wine consumers’ perceptions mentioned above (premium, value for money, brand awareness and producer country reputation). The following are the regression models constructed for these factors:

$$\text{NWW preferences}(\text{mean}) = \text{Premium}_{nww} + \text{Value for money}_{nww} + \text{Brand}_{nww} + \text{Reputation}_{nww}$$

⁵Based on Felzensztein (2004).

$OWW \text{ preferences}(\text{mean}) = \text{Premium}_{OWW} + \text{Value for money}_{OWW} + \text{Brand}_{OWW} + \text{Reputation}_{OWW}$

A Univariate Analysis was run in order to provide a regression analysis and an analysis of variance to one dependent variable through one or more factors or variables (Field, 2009). First of all, we explored the knowledge of the respondents and used it as a *fixed factor*. SPSS was needed to separate the *level of knowledge* into three factors which were represented by numbers (Low: 1; Medium: 2; High: 3). The analysis was run twice, considering the previous two new factors as *dependent variables* (preferences of New/Old World wines). Finally, an analysis was conducted using the previous five most important influential factors according to the respondents and the literature (Price, COO, region of origin, grape variety and brand) as *Covariates*.

As a last stage, a one-way ANOVA was run twice in order to produce an analysis of variance of one factor to one quantitative dependent variable in terms of only one factor variable (Field, 2009). We used two new factors as a *dependant list* (Consumers' preferences for New/Old World wines) and wine consumers' knowledge and influential variables as *factors*.

5. RESULTS

Respondents' demographic and wine selection

The majority of the respondents were females (54.2%). This could be ascribed to *Demand artefacts bias (signs sensitive and signs interpretation)*, which considers the complexity of the questionnaire and other factors (boredom and tiredness) as a barrier for *male* respondents (Krosnick, 1991). Second, age was well distributed and spread among the five categories responses. A third of the respondents were between *18 to 30 years old* (28.9%). The first two categories representing consumers less than 40 years, made up the majority of respondents in this study and the *51 to 60 years* category formed the smallest proportion (12.1%) followed by *61 years or more* (16.3%). This confirms earlier findings, as the ones encountered by Felzensztein (2011) who noted a growing trend of young consumers, called "*Millennials*". These are consumers between 21 to 29 years old with a university education, good income and use the Internet to learn and communicate. The majority of our respondents have a University education (71.1%), as wine consumption in the UK is more likely to be in higher socio-economic groups. Indeed, in terms of household earning, the category that stands out is the *over £55,000*, which accounts for 27.4% of all respondents. Our respondents can be interpreted as a consumer group which is more likely to buy more expensive wines and/or more frequently.

<Insert Table 1>

Regarding the amount that respondents are prepared to pay for a bottle of wine, the majority of respondents (52.6%) chose the *£6.00 and £9.99* category. This demonstrates that consumers are spending more money on wine than ten or more years ago, where the majority spent between *£4.50 to £5.99* and *£3.50 to £4.49* (Felzensztein, 2004). A minority of respondents (12.5%) was willing to pay *£10 or more* per bottle of wine. These respondents may reflect the "*connoisseurs*" who prefer more expensive wines. Interestingly, this does not match the large proportion of respondents that earn over *£55,000* a year.

Finally, the results show that *supermarkets* are the most popular place where respondents frequently purchase wine (84.4%). The second most popular retail outlet is *off-license shops* (41.1%), which represent a wine knowledgeable class of consumers, who are more involved in the wine world and are therefore considered the primary purchasers of fine wines.

New World Vs Old World

Our results show that there are not significant differences between consumers who prefer the NWW or the ones who prefer OWW. Both groups present very similar means, NWW (m: 3.6; sd: 0.61) and OWW (m: 3.7; sd: 0.59). This may be due to the fact that all the respondents had to answer according to their preferences by country rather than by groups.

Two regressions were conducted and two of the new factors created were used as dependent variables (consumers wine preferences for NWW and OWW). Additionally, country of origin, region of origin, grape variety and brand were considered as independent variables. We did not achieve significant statistical results, although *price* was the only factor which is significant in the second model where consumers' preference for OWW was the dependent variable (*See the regression models in Methodology part*).

<Insert Table 5>

<Insert Table 6>

The second regression considered wine consumers' perceptions as *dependent variables* (premium, value for money, brand awareness and country producer reputation). We identified that the variable *premium* wine is the only significant perception for consumers' preferences of NWW and OWW.

<Insert Table 7>

<Insert Table 8>

Furthermore, results from the Univariate analysis show that the COO is important for all wine consumer categories involved in this study, considering different levels of knowledge, two groups of preferences (NWW and OWW) and also including five influential factors at the time of choosing a wine. However, the COO is not significant in relation to other factors. However, *region of origin* and *grape variety* were significant and the results demonstrate that these two variables are increasing in terms of importance for consumers at the time that their knowledge is increasing from Low to Medium to High.

<Insert Table 9>

<Insert Table 10>

Lastly, we did not find any significant results other than *price* in the one-way ANOVA conducted with OWW in the *dependent list*. Thus, it is confirmed that consumers' knowledge does not make any difference in this study as the preferences of consumers for wines either from the New World or Old World are similar. The univariate analysis showed that the COO is important for consumers, but it is not a significant factor. However, the importance of *price* in terms of consumers' preferences for Old world wines was confirmed. This was presented in a previous analysis (regression), where these results are validated.

<Insert Table 11>

<Insert Table 12>

Consumer's wine selection

Our results show “*Word of Mouth*” and “*Promotional Activities*” appeared as the most influential communication tools in the wine market, followed by “*Recommendations from Retail Assistant*”. These results are only partly in line with Felzensztein (2004), as these studies found that “*recommendation from the retail assistant*” was the most influential communication tool for buying wine. This was followed by “*Word of Mouth*” and “*Promotional Activities*”, and then wine “*Publications/Wine Critics*” (13.6%) and “*Advertisement*” (mostly considered as “not important at all”). It is arguable that the results were different due to the fact that Felzensztein (2004) focused

on consumers of specialist wine retailers, who are mostly “*Connoisseurs and Aspirational Wine Drinkers*”. In contrast, our work has focused on a wide variety of consumers and as the results show, the majority of them prefer to purchase wine in supermarkets, where there is not an interaction between the retail assistant-customers. On other hand, “*Advertising*” showed an increase from “*not important at all*” to “*indifferent/ little importance*”, which means the importance of it in the wine industry has been increasing over time.

<Insert Table 3>

<Insert Table 4>

6. CONCLUSIONS

Our findings show that “*Price*” is the most important factor at the time of purchase wine. The second most important factor is “*Country of Origin*” which is becoming more relevant along the time. *Brand name* and *label* are also factors that influence consumer choice compared with a decade ago (Felzensztein, 2005).

According to our results “*Price*” was the only variable which presented significance in the regressions conducted, where consumers’ preferences for OWW was the dependent variable. In addition, the same results were found in the one-way ANOVA conducted using OWW as “*Dependant List*” and wine consumers’ knowledge and influential variables as *factors*. This demonstrated the UK wine market as *price sensitive* for consumers who prefer wines from Old World countries. Therefore our hypotheses 1 and 2 were not supported.

When we engaged in our study we expected that country of origin would influence NWW producers wine consumption. Surprisingly, we found that COO is only the second most important factor for both NWW and OWW wine producers (after price) without any significant statistical difference between them.

Although we cannot confirm our hypotheses, we can say that regarding consumers’ perception, the concept of *premium wines* was significant for consumers who prefer wines either from the New World or Old World. This confirmed that there is a strong concept of high quality products when it is related to the “*Country of Origin*” preferences. In terms of influential factors at the time of selecting wine, “*Region of Origin*” and “*Grape Variety*” are significant for both groups of consumers (NWW and OWW preferences) and especially important when the “*Level of Wine Consumers’ Knowledge*” increase from low to medium to high.

Our results can play an important role in an international marketing strategy in terms of consumers’ preferences and perception (high quality, value for money, well-known brands and reputable wine producers) of wines.

7. IMPLICATIONS AND LIMITATIONS

COO has become an important factor and an important attribute for the wine industry and more research in this area is recommended. “*Brand Name*” was not perceived as an influential factor a decade ago (Felzensztein 2004), but in our research it reached the category of “*Important*”. Hence, our results are partly in line with results of previous research that showed that “*Price, Country of Origin and Grape Variety*” were the most influential factors at the time of purchasing wine and “*Region of Origin*”, “*Labeling*” and “*Brand*” were not considered to be influential factors as the latter were perceived indifferent factors for consumers. Therefore, these results suggests that the COO should be handled with care by researchers and managers as it seems its importance has been overrated in the marketing mix.

The research would have been more specific if a probability sample had been undertaken and qualitative research used. Further researchers on the COO should

consider larger samples and different geographic regions of the UK or other countries. Also new research should consider other factors such as place-based (location) issues, region of origin, brand origin, and brand loyalty (Bruwer and Johnson, 2010). Finally, researches could study and analyze specific wine consumer segments and consumers' perceptions of wine producers' countries from a behavioral view where multicultural and cross nationality studies would be an advantage for future research.

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Tables

Table 1: Demographic Characteristics

Gender	Frequency	Valid Percentage
Male	87	45.8
Female	103	54.2
Total	190	100.0
Age	Frequency	Valid Per cent
18 to 30	55	28.9
31 to 40	41	21.6
41 to 50	40	21.1
51 to 60	23	12.1
61 or more	31	16.3
Total	190	100.0
Education level	Frequency	Valid Per cent
Secondary school or less	21	11.1
Bachelor degree	55	28.9
Postgraduate degree	114	60.0
Total	190	100.0
Household income	Frequency	Valid Per cent
Less than £ 15,000	32	16.8
£ 15,000 – £ 25,000	22	11.6
£ 25,001 – £ 35,000	32	16.8
£ 35,001 – £ 45,000	28	14.7
£ 45,001 – £ 55,000	24	12.6
Over £ 55,000	52	27.4
Total	190	100.0

Skipped questions (21)

Table 2: Consumers' preferences and influential attributes at the time of purchase wine.

Skipped questions (21). Consumers' preferences: Others (52)⁷. Premium wines, value for money, well-known brands and reputable producer: Other(28)⁸.

⁷The UK producers (10), Austria (7), Hungarian (6), Greek (5), Bulgarian (4), Lebanon (3), Mexico (Baja California, 2), Turkey (2), Alsace (France, which was already included in the original question), Georgia Canada, Israel, Switzerland, Nigeria, Slovenia, Ukraine, Cyprus, Eastern Europe, Indifferent (2), not important; Avoid wines that have to fly (ecological reasons).

⁸UK (9), Austria (4), Hungary (2), Bulgaria (2), Mexico (Baja California, 2), Nigeria, Canada, Israeli, Lebanon, Switzerland, Ukraine, Greece, Georgia, (Indifferent, No knowledge).

Table 3: Influential Attributes

Attributes	Mean
Price	4.26
Country of Origin	4.13
Grape variety	3.94
Labelling (Clear information and/or design)	3.66
Colour	3.62
Region of Origin	3.56
Brand name	3.42
Ageing	3.39
Other factors	3.22
Medal or Award	2.94
Fair Trade	2.92
Alcohol level	2.89
Organic	2.7

Others (11)⁹

Table 4: Communication Tools.

Communication tools	Mean
Promotional activities (Special offers, tasting, etc)	3.69
Advertising (TV, radio, news papers)	2.65
Wine publications, wine critics	3.09
Word of mouth (Friends, family)	4.16
Recommendations from retail assistants	3.19
Other factors	3.52

Others (5)¹⁰

Table 5. Regression. Consumers' Perception.

Factors	M.	Sd.	Sig.
New world wine	3.65	.618	.000
New Premium	3.93	.721	.027
New Value for money	4.02	.687	.673
New Brand awareness	3.93	.745	.870
New Country producer reputation	4.26	.650	.649

⁹Recommendation from the wine marker (2), Description of the flavour and taste on the label (2), Taste and wine body, Cork seal, Design of the bottle, Temperature, whether sweet or dry, (Principles, e.g. Not Argentinean wines because of the Falklands), (ecological reasons, wines from countries close to the UK).

¹⁰Level knowledge of area/visits (2), tasting elsewhere (dinners, parties, bar/pub), Curiosity, Whim and random chance.

Table 6. Regression. Consumers' Perception.

Factors	M.	Sd.	Sig.
Old world wine	3.73	.586	.000
Old Premium	4.07	.674	.047
Old Value for money	3.72	.846	.640
Old Brand awareness	3.81	.790	.658
Old Country producer reputation	4.27	.608	.991

Table 7. Regression. Influential factors at the time of choose wines from the New World.

Factors	M.	Sd.	Sig.
New world wine	3.62	.611	.000
Price	4.27	.789	.709
Country of origin	4.15	.989	.490
Region of origin	3.58	1.016	.129
Grape variety	3.96	1.060	.072
Brand	3.43	1.033	.574

Table 8. Regression. Influential factors at the time of choose wines from the Old World.

Factors	M.	Sd.	Sig.
New world wine	3.74	.593	.000
Price	4.26	.790	.043
Country of origin	4.13	.999	.874
Region of origin	3.56	1.032	.315
Grape variety	3.95	1.56	.913
Brand	3.42	1.041	.902

Table 9.Unvariet Analysis. New World Wines.

Factors	Knowledge	M.	Sd.	Sig.
New Price	Low	4.29	.926	.980
	Medium	4.26	.670	
	High	4.25	.840	
	Total	4.26	.786	
Country of origin	Low	3.97	1.098	.182
	Medium	4.05	.953	
	High	4.29	.983	
	Total	4.13	.997	
Region of origin	Low	3.29	1.060	.000
	Medium	3.33	1.003	
	High	3.93	.935	
	Total	3.56	1.028	
Grape variety	Low	3.63	1.140	.001
	Medium	3.74	1.076	
	High	4.29	.882	
	Total	3.94	1.052	
Brand	Low	3.54	1.146	.692
	Medium	3.36	.903	
	High	3.43	1.117	
	Total	3.42	1.035	

Table 10.Univariate Analysis. Old World Wines.

Factors	Knowledge	M.	Sd.	Sig.
Price	Low	4.29	.926	.980
	Medium	4.26	.670	
	High	4.25	.840	
	Total	4.26	.786	
Country of origin	Low	3.97	1.098	.182
	Medium	4.05	.953	
	High	4.29	.983	
	Total	4.13	.997	
Region of origin	Low	3.29	1.060	.000
	Medium	3.33	1.003	
	High	3.93	.935	
	Total	3.56	1.028	
Grape variety	Low	3.63	1.140	.001
	Medium	3.74	1.076	
	High	4.26	.882	
	Total	3.94	1.052	
Brand	Low	3.54	1.146	.692
	Medium	3.36	.903	
	High	3.43	1.117	
	Total	3.42	1.035	

Table 11. One-way ANOVA. New World Wines.

Independent variables	Sig.
Price	.737
Country of origin	.461
Region of origin	.090
Grape variety	.104
Brand	.555
Knowledge	.309

Dependent variable : New World Wine.

Table 12. One-way ANOVA. Old World Wines.

Independent variables	Sig.
Price	.045
Country of origin	.955
Region of origin	.478
Grape variety	.651
Brand	.737
Knowledge	.138

Dependent variable: Old World Wine

How Do Signals Shape Wine Shoppers Value Perception?

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Abstract (250 words):

This research examines the resiliency of the impact of objective wine ratings on consumer value perceptions in light of influences from the regional origins of the wine and the business orientation of the winery. The research examines authenticity as a facilitating construct linking signal cues such as ratings and their interactions with region of origin and business orientation with value in the form of both get (hedonic value) and give (what you pay). The results support higher value with higher ratings. However, this is qualified by an interaction such that wines from a country highly associated with wine production (France) are affected more by low ratings than a new wine producing country and by the impact of authenticity as a mediator of rating's effect on hedonic value.

Purpose

Examine the effect of ratings across varying conditions.

Design/methodology/approach

Standard between subject experimental design.

Findings

Main effects of ratings on both value aspects, give and get, and rating X country of origin interactions on authenticity and hedonic value. In addition, a rating X business orientation interaction is observed on willingness to pay. Authenticity displays significant relationships consistent with a mediating role between various signals and perceived value.

Practical implications (if applicable)

Ratings seem to influence all wines in terms of perceptions of authenticity and hedonic value. French wines seem to be most affected by low ratings because low ratings lower authenticity. Consumers expect a certain level of quality from French wines and when a cue signals that quality is not there, a contrast effect lowers consumer perceptions significantly. Countries who shun the heritage of a terroir may also be perceived well if the wines produce very high ratings.

Key words: Authenticity, country of origin, rating, willingness to pay, hedonic value

1. INTRODUCTION

Wine epitomizes experiential consumption. Although wine must be experienced to extract value, consumers of all knowledge levels use various cues to try to ascertain the value resulting from a given wine's consumption during the search process. Prior to purchasing any good or service, consumers engage in an evaluation process characterized by the assessment of a variety of different attributes associated with desirable factors, such as quality, taste, and feel. While some products are more easily appraised, other products have shown to be more challenging with regard to pre- and even post-consumption evaluation (Nelson, 1970).

In the absence of sufficient knowledge, customers therefore rely on other means to assess the quality and determining attributes of a product as part of the decision making process. As defined by Spence (1973), signal theory provides one explanation of consumers' evaluative behavior by examining signals of a product or a service within their consideration set. These signals represent credible information about unobservable quality characteristics that can be appraised via different strategies such as firm reputation, premium price, or brand. One of the most common signals provided by sellers is the price of a product or service (Dutta et al., 2007). However, prior studies have shown that the relation between quality and price is relatively weak leading to the conclusion that higher prices tend to be a poor signal of higher quality (Gerstner, 1985). As a result, consumers need additional quality indicators to distinguish between potential alternatives. Research has identified third-party evaluation as effective signal for consumers to infer quality of a product (Dean and Lang, 2008).

Here, the lack of personal experience or product knowledge is complemented by product quality information provided by a third party (De Maeyer and Estelami, 2011). According to Akdeniz et al. (2013), the perceived quality of a product is judged as higher when supported by a third-party rating rather than by the individual alone. A frequently applied signal of a high quality rating issued by a third party is an award, ranging from J.D. Power and Associated Award to Malcolm Baldrige Quality Award. The award is offered by a supposedly independent organization to the winner of a competition (Dean and Lang, 2008). This competition can have follow several different formats, such as a product ranking against competing products in its class or a "seal" of approval within a certain category (Dean and Biswas, 2001). Within the wine industry, the most commonly referenced wine rating system is the Parker grading system published by American wine critic Robert Parker (*Wine Advocate*) and ratings published in the *Wine Spectator* (Hadj Ali and Nauges, 2007). As stated by Hadj Ali et al. (2008), the Parker grading system is based on a 50-100 point scale, which differentiates between single scores for mature wines and grade intervals for *en primeur* wines. The quantitative rating component is complimented by a verbal tasting note that contains an overall description of the wine. Prior research studies have validated the relationship between Parker rating scores and price sensitivity, namely that a higher rating results in a higher willingness to pay (Hadj Ali et al., 2008). This research looks at how these "objective wine ratings" serve as cues along with regional information to shape consumers' expectations of value associated with the wine's consumption.

2. BACKGROUND

2.1 Product Cue – Country of Origin

Certain products are difficult to evaluate through advertising and label information leading consumers to rely on product cues that infer quality of the product's actual attributes (Olsen, 1973). Wine is one of these products that lack easily comparable attributes (Schiefer and Fischer, 2008), which motivates consumers to seek out supplementary cues, such as country or region the wine was produced in or overall wine rating. While country of origin relates to extrinsic cues or image variables, aroma or taste of the wine are recognized as intrinsic cues or actual attributes. The lack of ability to evaluate a product based on intrinsic cues prompts consumers to rely on extrinsic cues to form quality perceptions about a product (Olsen, 1973). Thus, inexperienced consumers will rely more heavily on cues such as country of origin and wine ratings when assessing overall wine quality.

The importance of country-of-origin, on in wine markets regional, effects is based on the consumers' perceptions of the country or region's image. As defined by Roth and Romeo (1992), country image is influenced by prior perceptions of the market strength or weaknesses and production capabilities displayed by the country. These a priori perceptions in turn determine the overall consumer perception of the product in question. With regard to conceptualization of the construct, country image is represented by a set of general beliefs about representative products of the country and other country characteristics including economic environment, political maturity, and level of industrialization (Bannister and Saunders, 1978). Considering that a product associated with a country that has a favorable image not only results in higher perceived quality, but also lower perceived risk leading to increased purchase intention, the inclusion of country-of-origin can be a valuable attribute for consumers that have lack knowledge or experience with a certain wine.

The classification of a product based on the described attributes can be linked to categorization theory, which suggests the existence of a category structure that prompts individuals to group together objects and events to improve information processing (Cohen and Basu, 1987). These categories contain details of various events or objects that are summarized by exemplars that serve as the single best representative of a category. Considering wine as a product category, the specific country, French wines serve as the exemplar based on country-of-origin. Wine also is the product most associated with France. Other countries also may be prototypical of wine producing areas, such as Italy. When people think of the United States, wine is not one of the first products that comes to mind.

Old-world countries such as France, Italy, and Germany are perceived as traditional wine producing regions (Spielmann and Babin, 2011). In turn, wine is also one of the most prominent products from each of these countries. Not only is Italy a country most associated with wine, but wine is one of the best known products from the country. The appropriate location and climate necessary to produce good fruit in addition to manufacturing know-how contribute to the strong association between these old-world countries and quality wine.

In contrast, new-world countries with regard to wine lack this strong association making them less likely to be the exemplar of wine-producing countries. This new-world country category

includes examples such as Australia, New Zealand, and South Africa, which are not perceived as being known for producing wine as an exemplar product. As such, consumers are more likely to attribute a higher quality and a more positively overall evaluation to wines produced by old-world countries rather than new-world countries. This effect has been validated in previous research studies. Guidry et al. (2009) observed a higher perceived quality rating for French (old-world country) wine than for Texas (new-world country) wine, even though both tasted wines were actually identical. In addition, the consumer willingness to pay was higher for the assumed French wine than for the Texas wine. Arias-Bolzmann et al. (2003) confirm the positive effect of perceived quality and traditional wine producing countries on the consumers' willingness to pay. The findings of their study concluded that differences in country of origin and quality is not only recognized by the market, but also significantly influences wine prices with a price premium being awarded to French wines. The previous discussion leads to the following research question:

RQ1: How do region of origin and third-party ratings together influence value perceptions?

2.2 Authenticity

The notion of authenticity has been a widely discussed phenomenon within the wine literature (Beverland and Luxton, 2005; Speilmann and Babin, 2011). While there has been a differentiation between iconic and indexical authenticity (Grayson and Martinec, 2004), the current paper focuses on the overall effect of authenticity on consumer perception. Specifically, prior research has validated the increase the perception of the wine's authenticity if the wine is related to a specific place. Consistent with categorization theory, objects that align with one's exemplar or standard of a category will be perceived as authentic. Based on the previous discussion about country-of-origin effect and the notion of being an exemplar for wine producing countries, old-world regions belong to a consumer's preexisting template for wines. In contrast, new-world regions are not likely used as a template for wine. New-world regions lacking the heritage necessary for high authenticity, old-world countries will be associated with a higher level of perceived authenticity because such wines correspond to the consumer's template for "true" wine.

Hedonic Value

The consumer's perception of value attributed to a product has been shown to significantly influence a variety of outcome measures, such as willingness to pay and repurchase intention. Specifically hedonic value has been suggested to positively contributed to the overall shopping experience (Babin et al. 1994). Here, hedonic value is associated with be a more subjective and personal component of value and reflects an emotional worth attached to the purchase experience. Most importantly, perceived enjoyment is a hedonic benefit often linked to the consumption of products. Especially wine has been identified as being one of the most hedonic consumer experiences.

Value, a function of benefits and sacrifices, is captured in two ways in this study (Babin and Harris 2013). The get component is represented by the perceived hedonic value associated with consumption of the wine. Subjects rated hedonic value using a five-item adjective description scale derived from the personal shopping value hedonic items (Babin, Darden and Griffin, 1994). Authenticity ($\alpha = 0.80$). Perceived authenticity was assessed with three 10-point items asking subjects to use the adjectives, authentic, worthy of the name and connected to place ($\alpha = 0.78$). The give component is captured by the consumer's willingness to pay; price representing the sacrifice aspect of value.

3. RESEARCH METHODS

Following previous experimental studies (i.e., Spielmann and Babin, 2011), a 2 X 2 X 2 between subjects experimental design provides data for the study. The two experimental variables of most interest here are country of origin (France and Australia) and the wine ratings from Wine Advocate and Wine Spectator (average 95 in high condition and 80 in low condition). In addition, the research explored the orientation of the winery by manipulating it across two levels (market oriented – the winery changes with today's trends in the market place and product oriented – the wine has a history of producing traditional wines that do not change with time). All subjects were first exposed to a warm-up wine (Italian wine with 91 point average ratings) and asked to rate it for willingness to pay and the expected hedonic value from drinking the wine. Following the warm-up, subjects were exposed to the target wine. All information was presented as label information (front and rear). Both objective and subjective wine knowledge also was assessed. No name for the wine was provided but all information other than that comprising the manipulations was held constant.

A total of 71 subjects from a U.S. consumer panel provided data for the experiment. Multi-item scales were included to measure perceived authenticity and hedonic value expected from consumption. Willingness to pay (WTP) was measured with a single slider scale ranging from \$0 US to \$100 US per bottle. The WTP dependent variable was computed by subtracting the price for the warm-up wine from the target wine as a way of controlling for individual price expectation variation from consumer to consumer.

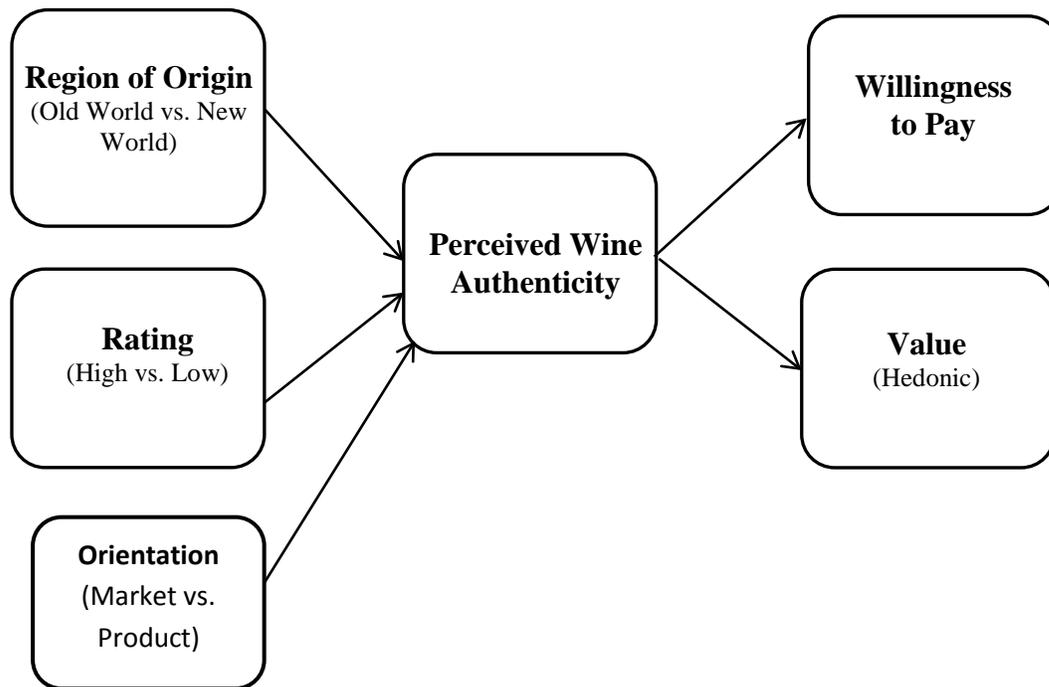


Figure I: Conceptual Model

3. RESULTS

3.1 Authenticity Results

Multiple full-factorial ANOVAs Authenticity Results. The first examines the effects of the experimental variables on Authenticity as a dependent measure. All analyses were conducted using wine knowledge as a covariate. Surprisingly, wine knowledge had little effect on any dependent measure nor did it interact with experimental variables. Thus, the results reported below do not include effects due to wine knowledge (objective or subjective).

The overall model $F = 2.96$ ($p = .007$) is significant. Looking more closely, neither country ($p = 0.13$) nor orientation ($p = 0.90$) exhibit significant main effects, but wine ratings does affect perceived authenticity significantly ($p = 0.005$). Moreover, the only significant interaction is the country X rating interaction ($p = 0.003$). Table 1 displays the means by country and rating conditions. Figure 2 displays the results graphically. The results show the significant main effect with higher rated wines displaying higher perceived authenticity scores (19.0) as opposed to lower rated wines (14.5). In addition, the interaction suggests a much greater difference for the ratings in the French wine condition (French-high 20.2, French-low 11.0 versus Australia-high 17.8 versus Australia-low 18.0). The results suggest that wine ratings do influence

authenticity ratings and seem to create a greater difference for French wines than Australian wines.

Rating	Country		Total
	Australia	France	
High	17.8	20.2	19.0
Low	18.0	11.0	14.5
Total	17.9	15.6	16.8

Table I: Authenticity Means by Condition

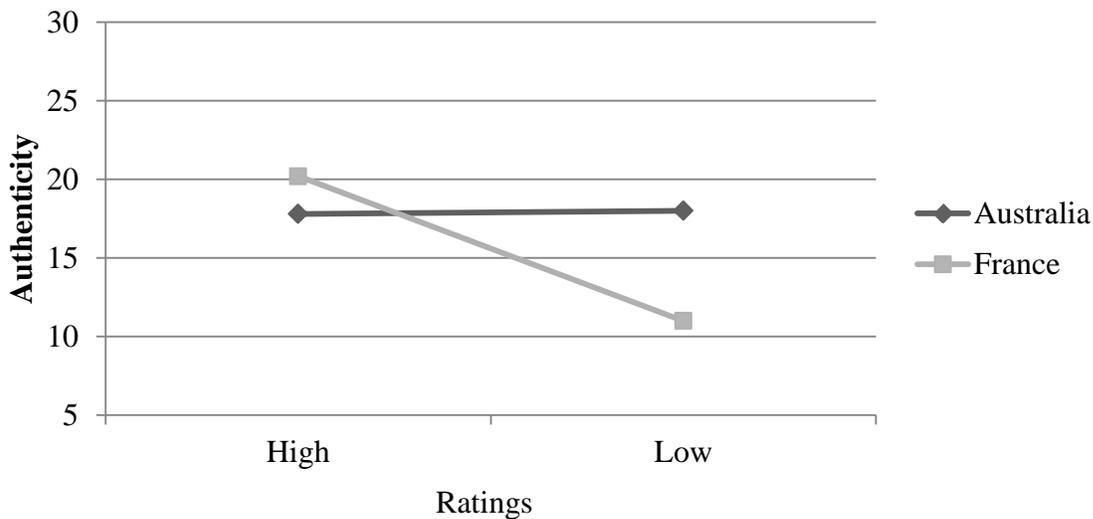


Figure II: Authenticity Means by Condition

3.2 Hedonic Value Results

The overall model predicting hedonic value, including perceived authenticity as a covariate, yields a model $F = 4.11$ ($p = .001$), which is statistically significant. Looking more closely, country ($p = 0.05$) and rating ($p=0.01$) both exhibit significant main effects, but winery orientation does not ($p = 0.66$). Moreover, the only significant interaction once again is the country X rating interaction ($p = 0.001$). Table 2 displays the means by country and rating conditions. Figure 2 displays the results graphically. The results show the significant main effect with higher rated wines displaying higher perceived hedonic value scores (40.7) as opposed to lower rated wines (30.0). In addition, the interaction suggests a much greater difference for the ratings in the French wine condition (French-high 43.1, French-low 21.6

versus Australia-high 38.3 versus Australia-low 38.5). The results suggest that wine ratings do influence hedonic value expectations and seem to create a greater difference for French wines than Australian wines. Figure 3 displays the results graphically. Additionally, authenticity provided a significant and positive influence on hedonic value expectations ($b = 1.79$, $t = 16.3$, $p < .001$).

Rating	Country		Total
	Australia	France	
High	38.3	43.1	40.7
Low	38.5	21.6	30.0
Total	38.4	32.3	35

Table II: HV Means by Condition

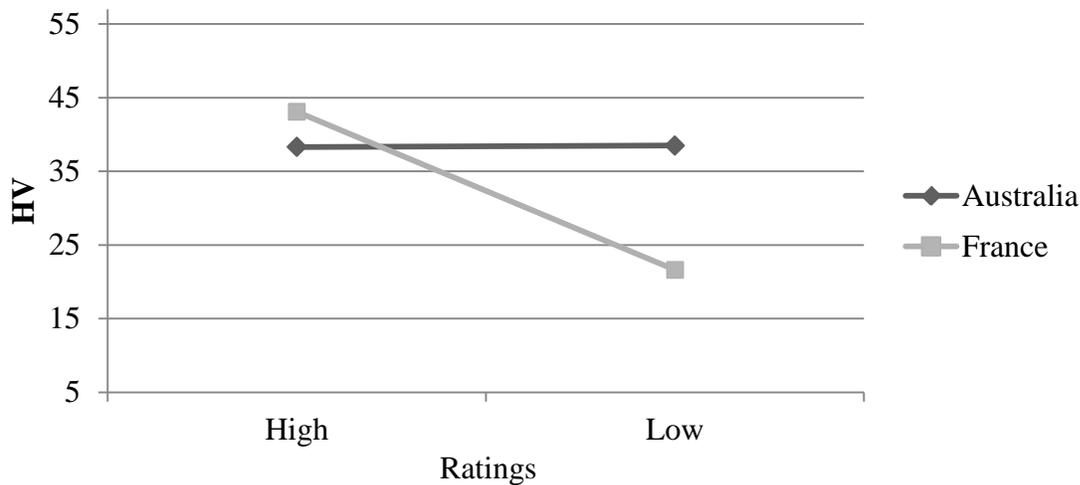


Figure III: HV Means by Condition

3.3 Price Difference Results

The full-factorial ANCOVA model including authenticity as a covariate significantly predicts WTP ($F = 6.9$, $p < .001$). The only significant main effect is wine ratings ($p < .001$). In this case, the only significant interaction is the two-way wine rating by orientation interaction (0.05). Table 3 and Figure 4 displays the means by condition. As expected, the higher ratings yield higher WTP (+7.9 in the high rating condition versus -7.7 in the low rating condition). The interaction suggests a greater difference in WTP in the market oriented condition (11.9 versus -8.5) as opposed to the product oriented condition (3.9 versus -5.7). The country by rating interaction is not significant, nor is the covariate for authenticity ($b = 0.20$, $t = 1.00$, ns). The results suggest that ratings matter, particularly when a winery is market oriented.

Rating	Orientation		Total
	Market	Product (Terroir)	
High	11.9	3.9	8.3
Low	-8.5	-5.8	-7.1
Total	1.7	-0.9	0.7

Table III: Price Difference Means by Condition

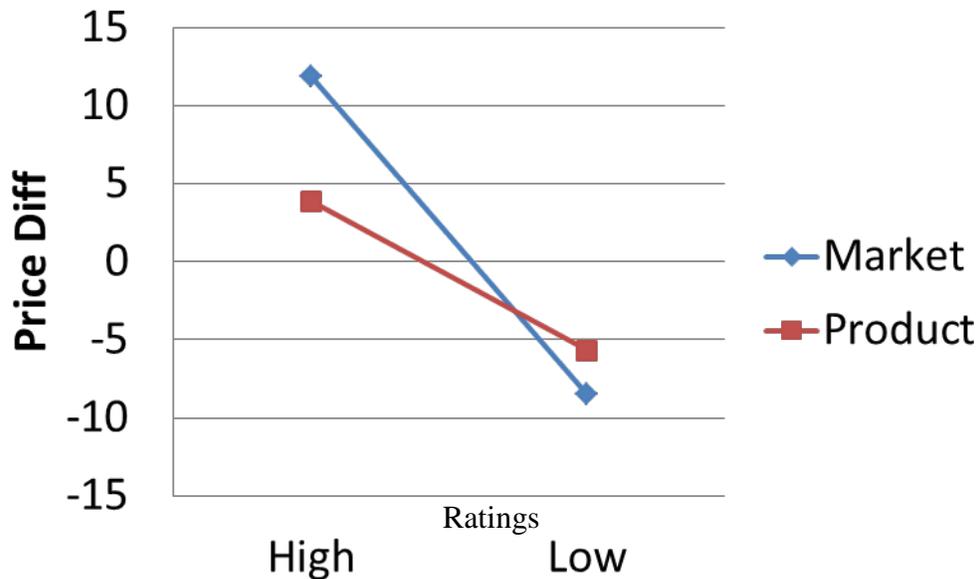


Figure IV: Price Difference Means by Condition

4. DISCUSSION

The results speak to authenticity and the value consumers assign to a wine – at least from a monetary perspective. Although this simple study begins to explore the potentially different roles played by authenticity across different categories of wines, perhaps the key role of the research is in stimulating further discussion and research. Key findings from the study include:

- Further corroboration of the strength of the French wine stereotype among consumers – in this case new world wine consumers. One of the prices the exemplar plays is high

expectations. When those high expectations are not met (as in the case of low ratings for a French wine), the wine pays a price in perceived authenticity and in perceived hedonic value expectations.

- The important mediating role played by perceived authenticity in shaping value perceptions. Label presentation style affects perceived authenticity which in turn has a positive influence on perceived authenticity and hedonic value.
- Perceived authenticity does not influence WTP.
- For an avant-garde winery that is very market oriented, as we've seen in the case of many U.S. or Southern Hemisphere wines, the ratings matter a great deal. WTP is highest for a market oriented winery that follows trends and lowest for the market oriented winery that gets low ratings. The tradition oriented winery (true to the terroir) sees less variation with ratings.

5. CONCLUSION

One potential limitation the current study is the application of only two ratings for each wine. Also, the implemented measures included a scenario what prompted participants to imagine what the wine would taste like and thus did not include actual consumption of the product. Therefore, assessment of value was limited to imagining the wine attributes. Future studies should include actual sampling of the wine to make more conclusive inferences on perceived value.

The documented effect of ratings on overall product evaluation is proposed to be expandable to other product categories, such as whiskey or wine. The nature of the products predispose consumers to rely on additional quality indicators as part of the decision making process leading to the suggestion that the influence of ratings should be broaden to additional product categories.

These exploratory results require additional studies to extend the results beyond French and Australian wines and to perhaps better represent the orientation of the winery.

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**Skills Desired by Recruiters for Graduates from Food, Agriculture and
Wine Fields of Study**

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Skills Desired by Recruiters for Graduates from Food, Agriculture and Wine Fields of Study

Purpose: Examine the skills recruiters desire in college graduates in the food, agriculture and wine industries to provide guidance in curriculum evaluation and development. Further, identify how recruiters use social media as a means to contact students and as an instrument to evaluate potential candidates to inform students.

Methodology: Survey research was conducted among 296 recruiters from firms that hire college graduates from all fields of study. There were 118 respondents that hire students from the food, agriculture and wine fields of study. Two methods were used to conduct the survey research: personal interview method and internet survey method. The personal interview method was used to collect 138 surveys at a Career Fair at California Polytechnic State University on October 9 and 10, 2012. In addition, emails and LinkedIn connections were used to add 159 survey respondents to the sample during October and November 2012.

Findings. Recruiters indicate that soft skills are the most desirable skills of potential job candidates. The use of an info-graphic resume or portfolio that communicates soft skills was considered useful to recruiters of college graduates in the fields of food, agriculture and wine. Social media was used by most of the respondents to contact and evaluate student recruits.

Practical implications: Developers of curriculum should include courses that allow students in the fields of food, agriculture and wine to develop their soft skills and clearly communicate them to recruiters. Students must be aware of the importance of their image on social media sites such as Facebook when searching for a job in the fields of food, agriculture and wine.

Key Words: College graduate skills; Soft skills; Recruiters; Students in the fields of Food, Agriculture and Wine; Social Media

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1. BACKGROUND

1.1 Research Concerning Skills Required by College Recruiters

Recent research by Noel and Qenani (2012) found that employers in the agribusiness industry are looking for graduates that are creative and have strong communication and critical thinking skills. A national survey of the Association of American Colleges and Universities (AAC&U 2013) with business and non-profit leaders sheds light on the employer's priorities for the kinds of skills in college students today. Employers surveyed indicate that they give hiring preference to college graduates with skills that will enable them to contribute to innovation in the workplace, and demonstrate a capacity to think critically, communicate clearly and solve complex problems. A study conducted by Hart Research Associates (2006) revealed that employers value graduates with attributes such as teamwork, critical thinking and oral communication skills. What skills do recruiters in the the food and wine industries desire of the graduates they hire?

1.2 Use of Social Media for Recruiting

A recent report by Stonebridge Research Group estimates that the wine industry contributes approximately \$50 billion to the US economy and employs over 300,000 people across the US (Stonebridge Research Group 2012). A survey conducted by Jobvite with 1,000 human resources professionals indicated that 92% of employers used or planned to use social media as a recruiting tool in 2012 (Jobvite 2012). Another survey conducted by ABLE Social Media Marketing revealed that 94% of American wineries are on Facebook and 73% are on twitter (ABLE Social Media Marketing 2012). The heavy use of social media has changed the way business is conducted. Since the wine industry contributes significantly to the US economy and the industry is heavily using social media, it is important to understand how recruiters use social media in their recruitment process of college students.

Recruiters proactively use social media to identify potential candidates instead of waiting for resumes from candidates. If a job candidate doesn't have a social media presence – on LinkedIn, Twitter, or personal website – chances to get noticed are diminished. Companies utilize social media for various purposes and social media will become even more important in the future.

1.3 Research Objectives

There are several objectives of this research. First, to identify the skills recruiters value the most in college graduates in the food, agriculture and wine fields. Second, to examine how recruiters use social media to contact students, and how social media is used as an instrument to evaluate students for specific positions. Finally, this research examines uses of social media to showcase students' use of their desirable skills such as: written communication skills, critical thinking, and a passion for the field through industry news readership and discussions.

2. RESEARCH METHODOLOGY

Survey research was conducted among 296 recruiters from firms that hire college graduates. Two methods were used to conduct the survey research: personal interview method and internet survey method. Through personal interviews, a total of 137 surveys of college recruiters were obtained at the Career Fair at California Polytechnic State University, San Luis Obispo on October 9 and 10, 2012. In addition, email and LinkedIn recruiters' connections were used to add 159 completed surveys to the sample

during October and November 2012. The composition of the recruiters' sample makes it most applicable to student recruits from Cal Poly. Over half of the respondents (59%), were Cal Poly alumni. The respondents hire students from all fields of study: accounting/finance, architecture, business, communication or graphic arts, computer programming, education, engineering, environmental sciences, food, agriculture and wine, health and medicine, humanities and arts information technology, science and math, social science, politics and law, and technology. The top four fields of study hired by respondents were business, engineering, accounting/finance, and food, agriculture and wine. There were 118 respondents that hire students from the fields of food, agriculture and wine. This research statistically compares the responses for the recruiters of students from the fields of food, agriculture, and wine to respondents that do not recruit from those fields using chi-square and t-tests. When significant differences were not found, only total sample responses are reported.

3. EMPIRICAL RESULTS

3.1 Importance of Major and Desirable Characteristics

Forty-seven percent of recruiters agree that “when evaluating college students for a position at my firm, the most important characteristic is the major field of study”. Recruiters of students in the food, wine and agriculture fields are more likely to indicate that field of study is not the most important characteristic they look for in a future hire. Only 36% of recruiters in the food, wine and agriculture fields indicate that major field of study is the most important attribute, compared to 54% of recruiters for other fields that consider student' major to be the most important attribute in their search process (Table 1).

Table 1. Major Field of Study as the Most Important Attribute during Recruitment

	FAW ¹	Not FAW	Total	P ²
Strongly agree	4%	16%	12%	
Agree	32%	38%	36%	
Disagree	53%	38%	44%	
Strongly disagree	11%	7%	9%	.003**

¹Food, Agriculture and Wine ² Chi-Square Test ** Significant at .05 level

If major is not the most important characteristic recruiters desire in college graduates, what is? Recruiters were asked to rate the desirability to them of 17 characteristics or skills of a college graduate. A five-point interval desirability scale was used where: 5 = extremely desirable, 4 = very desirable, 3 = somewhat desirable, 2 = slightly desirable, 1 = not desirable at all. Most of the top ten desirable skills were soft skills: strong oral communication skills, team player, self-starter, shows a passion for field, strong written communication skills, evidence of high ethical and moral standards, strong critical thinking skills, highly focused, creative thinker and strong social skills (Table 2).

Recruiters of students in the fields of food, agriculture and wine rate the soft skills such as strong oral communication skills, evidence of high ethical and moral standards, and strong social skills higher than other recruiters. Although it appears to be less important, knowing a foreign language is perceived as a more valuable skill by recruiters

in the fields of food, agriculture and wine (Table 2). Recruiters of students from other fields rate: strong critical thinking skills, strong quantitative skills, specific technical skills, and strong IT/MIS skills higher (Table 2). Designers of curriculum for food, agriculture and wine studies should incorporate soft skills that develop the collegiality of team players that can also work with little guidance and demonstrate strong oral communication skills.

Table 2. Skills Desired	Total Mean	P ²	FAW ¹	Not FAW	P ³
<i>Very to Extremely Desirable</i>					
Team player	4.51		4.49	4.53	0.578
Strong oral communication skills	4.51	0.82	4.55	4.49	0.353
Self-starter	4.49	0.75	4.57	4.44	0.067*
Shows a passion for field	4.43	0.16	4.42	4.45	0.669
Strong written communication skills	4.40	0.69	4.42	4.39	0.78
Evidence of high ethical and moral standards	4.37	0.64	4.52	4.28	0.003**
Strong critical thinking skills	4.36	0.70	4.27	<u>4.42</u>	0.09*
<i>Very Desirable</i>					
Highly focused	4.26	.06*	4.27	4.42	0.945
Creative thinker	4.19	0.22	4.26	4.26	0.147
Strong social skills	4.19	0.90	4.41	4.04	0**
<i>Somewhat to Very Desirable</i>					
Strong quantitative skills	3.92	0**	3.83	3.98	0.096*
Has specific technical skills for field of work	3.81	0.11	3.53	4.00	0**
<i>Somewhat Desirable</i>					
Internship experience	3.57	0**	3.67	3.51	0.114
Strong information technology/MIS skills	3.51	0.32	3.32	3.63	0.004**
<i>Slightly to Somewhat Desirable</i>					
Has certificates and/or licenses in field of work	3.13	0**	3.14	3.12	0.912
Study/work abroad experience	2.72	0**	2.79	2.67	0.227
Good foreign language skills	2.61	.02**	2.75	2.51	0.031**

¹ Food, Agriculture, and Wine ² Paired Sample T-Test Comparing Skills

³ Independent Sample T-test, comparing ratings between groups.

** Significant at .05 Level * Significant at .10 level

3.2. Social Media Methods Used to Contact and Evaluate Students

Social media was used by most of the respondents, 85%, as a means to contact student recruits. The top three social methods used to contact students were company websites, LinkedIn, and Facebook (Table 3).

<u>Table 3. Methods Used to Contact</u>	<u>Percent</u>
Company website	63%
LinkedIn	63%
Facebook	37%
Twitter	13%
YouTube	8%
Blogs	6%
Mobile apps	6%
Google docs/reader/+	5%

Social media is also used by most of the respondents as an instrument to evaluate potential candidates. Two-thirds of respondents (67%) use one of the listed social media platforms to evaluate students. The top two social methods used by recruiters to evaluate students were LinkedIn and Facebook. Over a quarter of the recruiters indicated that they use the students' personal websites to evaluate them (Table 4).

<u>Table 4. Used to Evaluate Students/Recruits for Firm</u>	<u>Percent</u>
LinkedIn	55%
Facebook	41%
Personal website	28%
Blogs	13%
Twitter	10%
Google docs/reader/+	8%
YouTube	7%
Mobile apps	2%

It is interesting to note that while 37% of the recruiters contact students using Facebook, 41% indicate that they evaluate students using Facebook (Tables 3 and 4). Further, only 49% of the recruiters that contact students using Facebook also evaluate them using Facebook. Therefore, "stealth" evaluations were observed in this research. "Stealth" evaluations occur when recruiters do not contact students through Facebook, but actually evaluate them through Facebook. Respondents that hire students in the food, agriculture and wine fields were more likely to evaluate students using Facebook and engage in "stealth" evaluations (Table 5) than other recruiters. Almost half of recruiters use Facebook to evaluate job candidates in the food, agriculture and wine fields. Forty-five percent of the recruiters for food, agriculture and wine industry that do not to contact students through Facebook actually evaluate them through Facebook. Only 25% of the recruiters of students in other fields engage in these "stealth" evaluations (Table 5).

Table 5. Facebook Used to Evaluate Students	<u>FAW¹</u>	<u>Not FAW</u>	<u>P²</u>
Evaluate Using Facebook	47%	32%	.014**
"Stealth" Facebook Evaluations	45%	25%	.005**

¹Food, Agriculture, and Wine ² Chi-Square-Test ** Significant at .05 level

3.3 Using Social Media to Showcase Industry Activity

The research indicates that recruiters are using social media to contact and evaluate students for jobs. Students need to be creative with social media to show recruiters that they are worthy candidates. They can create their own websites and blogs or use Facebook and LinkedIn to show their knowledge. Students at Cal Poly are using a new social content and discussion forum, ValuePulse, to supplement outdated texts and journals with current content. The forum enables students to read current news about the wine and food industries and discuss the news in written form with no character limit like on Twitter.

Recruiters were given an explanation of the new social platform and shown how a student's activity on it can be used to showcase knowledge and skills in a portfolio and summarized in an info-graphic resume. Recruiters were shown an info-graphic resume that summarized a student's activity on the social site. Recruiters for the food, agriculture and wine fields rated the soft skills higher and were more likely to indicate that such a resume is useful for evaluating recruits. Almost half indicated it is extremely or very useful in evaluating job candidates and 87% it was at least somewhat useful (Table 6).

Table 4. Info-graphic	<u>FAW¹</u>	<u>Not FAW</u>	<u>Total</u>	<u>P²</u>
Extremely useful	<u>8%</u>	5%	6%	
Very useful	<u>41%</u>	27%	32%	
Somewhat useful	38%	38%	38%	
Not very useful	9%	<u>19%</u>	15%	
Not at all useful	5%	<u>11%</u>	9%	.01**

¹Food, Agriculture, and Wine ² Chi-Square-Test ** Significant at .05 level

4.0 MANAGEMENT IMPLICATIONS

Recruiters rate soft skills as the top skills desired for college candidates for their jobs. In addition, many aspects of business including recruiting have adopted the use of social media. Designers of curriculum for food, agriculture and wine studies should incorporate soft skills that develop the collegiality of team players that can also work with little guidance and demonstrate strong oral communication skills. Perhaps social media can be used to help students engage in collaborative social skills development. Recruiters use social media to contact and evaluate students. They find an info-graphic resume that showcases the soft skills to be very or extremely useful. College career centers and students should use these results to improve their opportunities for being hired in the food, agriculture and wine industries.

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Optimising the impact of wine education on Asian international students

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Abstract

Purpose: The research compared two ways of categorising wines, either by region or grape variety, for teaching wine appreciation to Asian students to find which worked better.

Design/methodology/approach: Three similar groups of Asian students at a major Australian university tasted a set of six wines blind and rated them for liking, willingness to purchase, perceived price point, as well as choosing the grape variety, wine region, and wine style from a series of wine choices. One group was then exposed to three sessions of wine appreciation organised by grape variety; one group had the same course and wines organised by wine region; and the third group (the control) had no course. All three groups then tasted the same six wines blind and made the same ratings and choices.

Findings: The students trained using region of origin had significantly greater improvement in ratings for liking, willingness to purchase and perceived price compared to the other two groups. Students trained using region of origin and grape variety also improved their picking of grape variety in the blind test. There was no difference among the groups in choice of wine style after the treatments or compared to the control group.

Practical implications: This research shows that organising the wines by region of origin provides better results for the Australian wine sector: increases in willingness to pay, liking and perceived price point. Australian wine courses, especially in Asia, should organise wines by region of origin. Other countries and target markets should be examined.

Key words: wine appreciation, wine training, Asia

1. Introduction and literature review

Asia is on the radar of most wine industry professionals. However, many new world producers, Australia included, suffer at the expense of the strong perception of French wine in Asia and in particular, China. Education is a core component of the Australian economy. Eighty percent of Australian international students come from Asia (The Times, 2013). This presents a unique opportunity to investigate how this cohort best learns to appreciate wine. Increasing their knowledge of wine during a formative and positive period of their lives living abroad could increase their likelihood to become ambassadors for Australian wine when returning home.

Education plays a fundamental role in helping to develop preferences such that one might influence new Asian wine drinkers to prefer Australian wine styles. However, the role of education in the wine sector has barely been investigated scientifically. To the best of the authors' knowledge, only a couple of papers dealt with this issue, but none in Australia. LaTour et al. (2011) showed that when novice consumers were exposed to a conceptual type of training (e.g. explanation about how the wine is produced and discussion about wine varietals), they were better able to identify wines previously tried and they were less influenced by fictitious advertising. In addition, these consumers thought the wine was of higher quality and they were willing to pay a higher price for it. Another study by Sagala (2013), a Canadian wine educator, showed that participation in a wine course led to an increase in perceived subjective knowledge, the importance of varietal and regional attributes, and the willingness to talk about wine.

While LaTour et al. (2011) tackled the issue of different training methods, they did not study how to plan a traditional type of wine education course. Conversely, Sagala (2013) analysed the effect of a real wine education course, but didn't test different delivery approaches. Therefore, the purpose of this research is to fill the gaps left by these two studies by understanding what educational approach is most able to improve the perception of Australian wines among younger Asian students via a realistic wine education course.

In this base study, the authors tested whether education based on regions of origin or based on grape varieties improves the likeability, willingness to pay and perceived price points for a series of red wines tasted blind. This research represents the first of a series of four studies funded by the Grape and Wine Research and Development Corporation (GWRDC) to understand how to better educate Asian students about Australian wines. However, the outcomes should aid the development of wine education courses in general.

2. Method and sample

The method used in this study is divided in two sections: a) the selection of the wines to be assessed in the blind sessions by the participants; b) the organisation of the education courses.

For the first part of the method, the Australian Wine Research Institute (AWRI) helped the researchers select six red wines, which are representative of the main styles of red wines available in Australia. The focus on red wines is obvious as they represent 85% of Australian exports to China.

For the second part of the method, a convenience sample of university students living in the Adelaide metropolitan area was recruited via different social media platforms to take part in the experiment. In order to quality for participation, students had to be between 18 and 30 years old, be born in an Asian country and lived there for at least ten years. The students had to attend all the scheduled sessions in order to receive a gift card as compensation for their time.

Dependent variables: All the students participated in a central location hedonic test in Adelaide. Each participant evaluated all six wines, which are representative of the main styles of red wines available in Australia and potentially able to be exported to Asia. The wines were characterised by the AWRI sensory descriptive panel, and are as follows:

- 2011 Australian Shiraz: light flavour, sweet, soft, red fruit and vanilla
- 2010 Barossa Valley Grenache Shiraz Mouvedre: red fruit, soft, low oak, moderate alcohol
- 2009 Margaret River Cabernet Sauvignon: green, dark fruit
- 2010 Coonawarra Cabernet Sauvignon: green, stalky, high alcohol
- 2008 McLaren Vale/Clare Valley Shiraz: complex, well regarded, neutral
- 2010 Barossa Valley Shiraz: rich dark fruit, oak, high alcohol and astringency

The wines were presented monadically using a balanced randomised presentation order across respondents with three-digit coded ISO standard wine glasses. Each glass contained 30 ml of wine. Participants were advised to rest between the wines and drink some water. Assessments were made on paper with an individual questionnaire presented for each wine. The participants rated each wine on two sets of variables, continuous and categorical:

- Continuous:
 - overall liking on a nine-point hedonic scale ('dislike extremely' to 'like extremely');
 - willingness to purchase on a five-point Likert scale ('definitely would not purchase' to 'definitely would purchase');
 - perceived price point on a five-point Likert scale ('\$8 or below' to 'over \$25').
- Categorical:
 - grape variety (choice among five different grape varieties)
 - region (choice among five different wine producing regions)
 - wine style (choice among five different wine styles, from 'light and sweet' to 'dark and oaky')

Three groups of participants attended the central location hedonic test. Two groups took part in a wine education course between the two blind tasting sessions, while the control group didn't receive any training.

Independent variables: the students who took part in the education courses were randomly assigned to join one of the two scheduled courses – education by grape variety (Anderson, 2009; Szolnoki et al., 2010; Boatto et al., 2012) or education by region of origin (Perrouy et al., 2006; Remaud and Lockshin, 2009; Bruwer and Johnson, 2010). These two approaches have been selected because these two attributes often represent, after price, the key choice drivers for wine, especially among Generation Y consumers (Lockshin and Corsi, 2012), which are the target population in this study. Each course was comprised of three one-hour sessions over a 10 day period. Each session consisted of a theoretical component (25 minutes approximately) where the wine educator gave information about the grape variety or the region of origin planned for the session.

This was followed by a tasting of three wines (35 minutes approximately) for a total of nine wines per course. The students were invited to taste the wines on their own and then the floor was open for discussion between students and the wine educators about the visual, olfactory and tasting characteristics of each wine and the relationships with the elements of theory discussed in the first part of the lecture. These nine wines were identical for all students, but the order in which the wines were presented differed in relation to the course the students attended. The selection of the grape varieties took into account the level of popularity these varieties have in the Asian market. The regions of origin were located in different states to

make the study more representative of the Australian wine industry, and quality wines from each of the three grape varieties had to be able to be sourced from each region. Table 1 below summarises the way in which the wines were presented to the participants.

Table 1: Organisation of wines for the wine education courses

SESSION	EDUCATION BY GRAPE VARIETY		EDUCATION BY REGION OF ORIGIN	
	THEORY	TASTING	THEORY	TASTING
1	Pinot Noir	Margaret River Yarra Valley Adelaide Hills	Margaret River	Pinot Noir Cabernet Sauvignon Shiraz
2	Cabernet Sauvignon	Margaret River Yarra Valley Adelaide Hills	Yarra Valley	Pinot Noir Cabernet Sauvignon Shiraz
3	Shiraz	Margaret River Yarra Valley Adelaide Hills	Adelaide Hills	Pinot Noir Cabernet Sauvignon Shiraz

A total of 111 students took part in the study. The socio-demographic profiles of the three groups were not significantly different. All students came from an Asian country with a prevalence for China (48%), they were mostly 20-24 years old (60%), and they moved to Australia less than six months prior to the beginning of the course (29%). The students are almost equally spread between males and females.

3. Results

This section will first provide the results of the continuous variables and then those of the categorical variables. Figure 1 to Figure 3 present the average values of hedonic liking, willingness to purchase, and perceived price points across the six wines tasted blind before and after the two wine education courses and 21 days apart for the control group.

Education by region of origin generated a significant positive change in overall likeability, willingness to purchase and perceived price point. In particular, the average likeability value across the six wines increased by 11% from 5.2/9.0 to 5.8/9.0 ($p=0.001$), which is the highest average score across the three treatments. Similarly, the willingness to purchase the six wines improved by 11% from 3.0/5.0 to 3.3/5.0, once again the highest score across the three treatments. Finally, the perceived price point moved from 2.4 to 3.2 ($p=0.000$), where 2 = “\$9-\$15” and 3 = “\$16-\$20”, and 4 = “\$21-\$25”. In this case, the average perceived price point after the education course is not the highest among the three treatments, as the education by grape variety led to a final value of 3.4/5.0. However, education by region of origin improved the score by 30%, while education by grape variety showed an improvement of only 22% between the two conditions.

Figure 1: Likability – before vs. after wine education

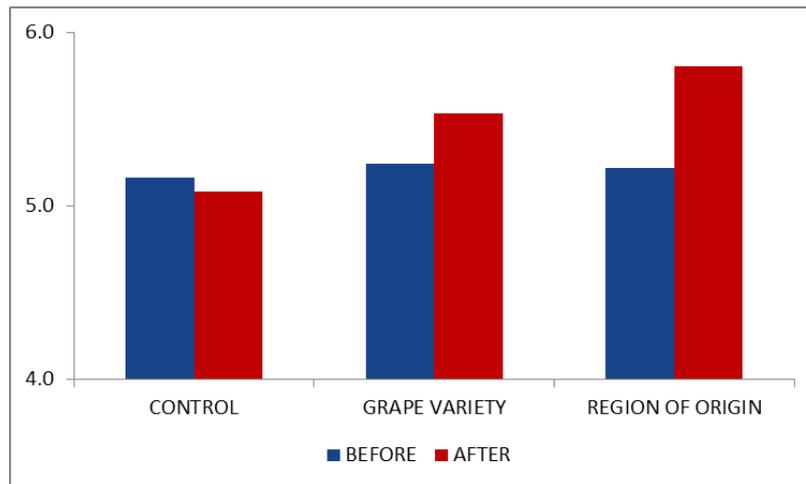


Figure 2: Willingness to purchase – before vs. after wine education

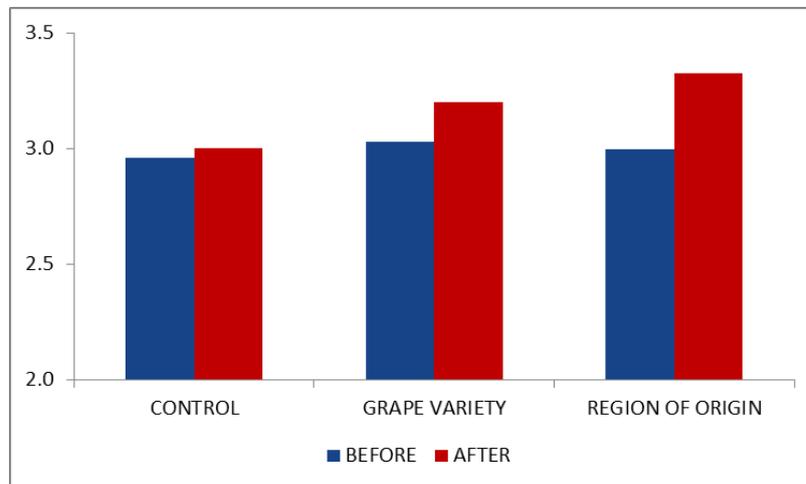
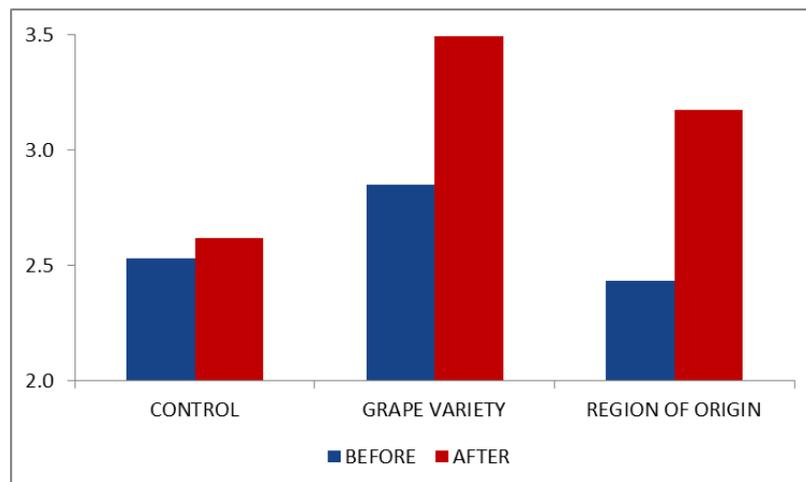


Figure 3: Perceived price point – before vs. after wine education



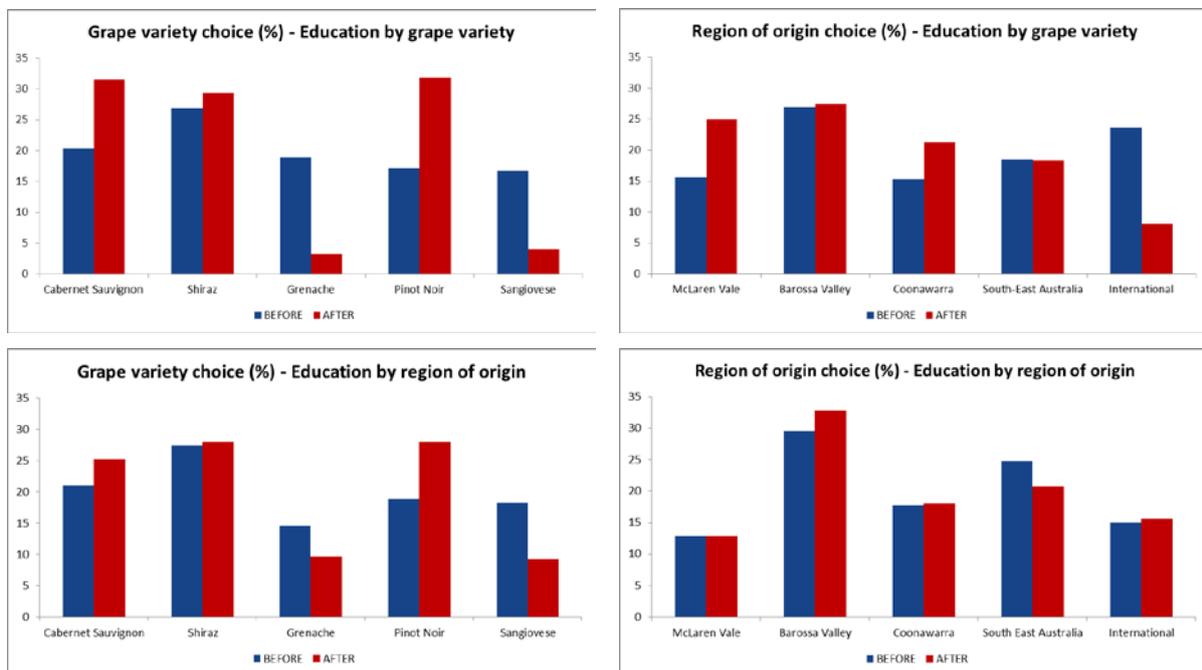
The control group score for likeability remained substantially identical and statistically insignificant between the two sessions (5.1/9.0 and 5.2/9.0, respectively). Similarly, we didn't observe any significant change in willingness to purchase for the control group (2.96/5.0 and 3.02/5.0 for the first and second evaluations, respectively) or for education by grape variety (3.0/5.0 and 3.2/5.0, respectively). Finally, no significant difference in terms of perceived price point was registered for the control group (2.5/5.0 and 2.6/5.0).

The results for the categorical variables (see Table 2 and Figure 4) show that education by grape variety leads to a significant difference in choice of grape varieties and regions of origin between the two sessions. Participants shifted towards the grape varieties - Pinot Noir, Cabernet Sauvignon and Shiraz – and regions of origin – McLaren Vale and Coonawarra – as they learnt more during the course. No significant changes are shown for the choice of wine style, with a dark & oaky still leading the way followed by rich & bold. The education based on regions of origin only generated a significant change for grape variety. It is believed that the lack of significant changes in terms of regions of origin choices between the two evaluations is due to the fact that the regions discussed during the three courses were not represented among the six blind tasted wines. No significant change was recorded for the wine styles. Dark & Oaky and Rich & Bold were the two most selected wine styles. There were no significant differences for the control group between the two sessions.

Table 2: P-values of the distributions of choices for the three categorical variables between the two sessions

	Control	Education by grape variety	Education by region of origin
Grape variety	0.931	0.000	0.021
Region of origin	0.661	0.000	0.661
Wine Style	0.881	0.836	0.970

Figure 4: % distribution of choices for the categorical variables



4. Discussion and conclusions

This study provides insights into the effectiveness of different structures for wine education classes, which should influence the strategies employed by Wine Australia, Australian wine producers and wine educators in Australia and Asia. Findings of this first phase of research demonstrate that education by region of origin is more effective than by grape variety and can improve the likeability, willingness to purchase and perceived price points of wines.

However, while an education by grape variety is able to make respondents more consistent in the selection of grape varieties and regions of origin, an education by regions of origin make respondents more consistent only in the selection of grape varieties. These elements are beneficial for the positioning of Australian wines in the Asian market, where Australia still suffers from the image developed by France. Prior research has shown that higher involvement consumers focus more on regions than grape varieties, or region/grape variety interactions (Perrouy et al. 2006; Lockshin et al., 2006), so this method may also work to increase involvement among the students. This would help all wine producers, as higher involvement buyers spend more money in the category.

Of course this is an initial study with three groups of students in one wine appreciation course. Further research should extend this research to show whether the effect works for wines from other countries and for other cohorts of wine appreciation students. It may be that the results stem from the way information is organised in the brain and that further improvements in the outcomes of wine appreciation training can be developed by understanding how information is coded and added to existing mental networks.

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Wine Business Education in a Networked World

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Abstract

Purpose. The global wine industry urgently needs to improve the business and management skills of its professionals at the background of profound changes impacting the global higher education industry. The purpose of this paper is to discuss current trends in higher education generally and their implications for the wine business education more specifically.

Design / methodology/ approach. The paper reviews the trends drawing on a range of academic and industry sources. We build on our experience as post-graduate business educators with a strong research and teaching interest in the wine industry.

Findings. The most important drivers of change in the higher education sector have been the surging costs of higher education; globalisation of the sector, in part driven by disruptive online technologies; and an increased interest by private equity and venture capital looking for restructuring opportunities. The drivers of change have several implications for the higher education sector – bifurcation of the industry, price competition and emergence of low-cost providers leveraging online technology, and the rise of MOOCs.

Practical implications. We are proposing that collaboratively developed and widely used online courses is one way the wine business education sector can deal with the imminent threats facing higher education. This is best achieved through a global alliance of wine b-schools.

Key words: higher education, trends, wine business education, collaboration, e-learning.

1. INTRODUCTION

The global wine industry urgently needs to improve the business and management skills of its professionals, as noted by the participants of the 1st Global Conference on Wine Business Education. While a passion for wine is a pre-requisite and technical wine knowledge is an advantage, a good understanding of finance, sales and marketing together with the softer skills required to succeed in business, are equally important for industry participants (Sonoma School of Business and Economics, 2012). Such urgency is warranted, because major wine producing countries have either lost their international competitiveness since the early 2000s, with Australia being the most telling example, or are struggling to maintain their strategic positions and high prices in major export markets (see Lewis et al., 2013).

Nevertheless, wine-producing countries such as Argentina, Canada, Chile, China, Germany, New Zealand and Spain have not established degree programs particular to wine business. This contrasts sharply with the experience of other Old World and New World wine producers, such as France, the U.S. and Australia. France, with its Burgundy School of Business and KEDGE Business School, among others, has well-established traditions in wine business education. The Sonoma State University Wine Business Institute is the first programme in the U.S. to offer under-graduate and post-graduate degrees focussed exclusively on the business aspects of the wine industry. In Australia, the origins of a specialisation in the business of wine go back to 1977 at what was then Roseworthy Agricultural College, today part of the University of Adelaide's School of Agriculture, Food and Wine (Sonoma School of Business and Economics, 2012).

Most researchers and observers agree that the global higher education industry is on the cusp of profound change (e.g., Christensen et al., 2011; Barber et al., 2013; Lenox, 2013; Ernst & Young, 2013). Given the need for business skills improvement in the wine industry, how should b-schools respond to this change? The purpose of this paper is to discuss current trends in higher education generally and their implications for the wine business education more specifically. Noting that there is a need for innovative solutions, we outline some practical steps and advance the idea of cross-institutional and cross-border collaboration.

2. TRENDS IN HIGHER EDUCATION

Over the last three decades, the costs of higher education in the developed world have surged. In the U.S., for example, the costs have increased much faster than inflation or wages, from \$10,000 p.a. in 1970 to about \$23,000 p.a. in 2012 (in constant 2011-2012 dollars, for an average four-year residential college degree, inclusive of total tuition, fees, room and board) (The Economist, 2013b). According to another estimate by the National Centre for Educational Statistics in the U.S., quoted in Barber et al., (2013), between 2001 and 2011 prices for undergraduate education (inclusive of tuition, room and board) rose 42% for public and 31% for private institutions (after adjustment for inflation). On the supply side, much of this "remorseless" increase in cost (Christensen and Eyring, 2011: 82) is predominantly driven by the 'bigger and better' tendency, resulting in bloated administrative overheads and faculty salaries to subsidise research which, in turn, supports university rankings and academic career structures. This situation has become unsustainable, as the recent financial difficulties at Thunderbird Business School have demonstrated (see Ellis, 2013).

On the demand side, one of the driving factors has been availability of cheap student loans resulting in a nearly \$1 trillion debt which exceeds the entire U.S. credit card debt (Reynolds, 2012; Barber et al., 2013). This is coupled with a deep-seated – but unsubstantiated – belief that investment in higher education will eventually pay off, even though the value of a degree has been falling dramatically, as exemplified by high levels of youth unemployment in the EU (Barber et al., 2013).

In addition to increasing costs, amongst the most pervasive trends has been globalisation of higher education, partly driven by disruptive online models. Disruptive innovation is an innovation that replaces the original complicated, expensive product with one which is so much more affordable and simple that a new customer segment has the skills and wealth to use it (Christensen et al., 2011). Disruptive innovations are invariably driven by new entrants who grow to dominate the industry by moving technologies upmarket to reach the mainstream customer, until complete or partial substitution occurs. Online education represents one such disruptive technology which is easily scalable (Christensen et al., 2011).

Increased interest by private equity and venture capital has also been an important driver of change, as entrepreneurial investors see an opportunity to restructure the ailing sector. Recent examples include the Minerva University start-up (with Bob Kerrey and Larry Summers as investors) which raised \$25 million in seed capital (Reynolds, 2012) and Coursera, a MOOC (Massive Open Online Courses) platform which so far has received two rounds of funding from venture capitalists, of \$22 million and \$43 million. In general, venture capital investments in ed-tech companies in 2012 exceeded \$1 billion, up from \$438 in 2011 (InformationWeek, 2013).

3. GENERAL IMPLICATIONS FOR HIGHER EDUCATION

The drivers of change outlined above have several implications for the higher education industry – bifurcation of the industry, price competition and emergence of low-cost providers, and the rise of MOOCs, which we discuss below.

Bifurcation of the industry. The trends are bifurcating the industry into what might be described as ‘luxury goods’ and ‘commodities’. The former are institutions such as Harvard, Stanford and MIT leveraging their exclusivity, reputation and networks, with high price built into their value proposition. The latter are low cost providers such as Walden University and University of Phoenix leveraging economies of scale and online technology. In parenthesis, such bifurcation is not unique to higher education, and indeed many industries – including airlines and PCs – experienced a major shake-out akin to what we are facing in higher education today. Because these two strategic positions entail vastly different value propositions, resources (e.g., athletic teams and state-of the art-facilities) and activities (e.g., fundraising from alumni as a major source of revenue), they are, by definition, mutually exclusive (see Porter, 1996). For example, a recent report by Ernst & Young (2012) on the future of higher education predicts that in Australia three distinct strategic positions will emerge: (1) streamlined broad-based research and teaching universities, (2) established providers and new entrants dominating specialised niches and (3) private providers and new entrants who will carve out new positions in the traditional market, in part through merging higher education with other sectors (such as media and venture capital). The implication is that universal providers will be under pressure, and some may go into bankruptcy (Lenox, 2013; The Economist, 2013b).

Price competition. The imminent bifurcation of the industry suggests that universities will need to compete on price and new, low-cost providers such as Brigham Young University – Idaho will emerge leveraging technology (Christensen and Eyring, 2011). The economics of price competition seems to suggest that online universities are able to drop prices by 60% and still be profitable; while the vast majority of traditional universities may go into bankruptcy if their prices fall by as little as 10% (Christensen, quoted in The Economist 2013b).

The rise of MOOCs. MOOCs are widely regarded as an innovation building on the technological and pedagogical advances in e-learning (Lawton and Katsomitros, 2012), enabling a fast and consistent student engagement with high-quality content as well as measurable results (McKinsey & Co., 2013). Since the recent launch of leading MOOC platforms (Coursera, edX, Udacity, Khan Academy), MOOCs have generated unprecedented interest from students and partner universities worldwide (Daniel, 2012). The distinguishing characteristics of MOOCs (e.g., online delivery, a range of assessment methods, short videos and online forums) are claimed to have pedagogical benefits such as retrieval and mastery learning, enhanced attention and focus, peer assistance, and ability to ‘flip the classroom’ (see Glance et al., 2013). The available evidence seems to suggest that some aspects of MOOCs may considerably enhance student learning (Glance et al., 2013) and that, on average, online learning is as effective as face-to-face learning (U.S. Department of Education, 2009). The emergence of MOOC providers – who charge no or very modest fees – will make it harder for traditional universities to overcharge students, especially undergraduates, in order to subsidise research that nobody else will pay for (The Economist, 2012; 2013a).

Clearly, institutions, including providers of wine business education, will need to work out innovative responses to these trends in order to retain a competitive edge or even relevance (Lawton and Katsomitros, 2012). What do these developments mean for post-graduate education and, specifically, for b-schools? Will they suffer the same fate as the traditional university? Or will they find a way of leveraging the benefits of scale and low cost without sacrificing prestige and individuality? What innovative responses are required? We address some of these issues in the next section of the paper.

4. THE FUTURE OF WINE BUSINESS EDUCATION

4.1. Practical Steps

Traditional b-schools are finding themselves “stuck in the middle” – not being able to drive customers’ willingness to pay high enough to be a luxury good, nor having scale and online capabilities to be a commodity provider. We argue that b-schools with a specific industry focus, such as specialisation in wine and spirits, may be better positioned to deal with the changing higher education sector. This is consistent with the findings of the Ernst & Young’s (2012) report that one sustainable position for the sector may be specialised niches. The bifurcation of the industry discussed earlier is a natural market outcome. Yet the optimal outcome, in our view, particularly given the pressures of globalisation and disruptive technologies, would be to find ways to collaborate and pool resources within a specialised niche. This will involve the low-cost benefits of the online component without sacrificing the b-schools’ unique strategic positioning and brands. To be successful the right blend of competition and collaboration will need to be established.

Practical steps will involve:

- An establishment of an association of wine business educational institutions. The 1st Global Conference on Wine Business Education was a step in the right direction, with participants committing to collaboration across countries and universities in the creation of new teaching cases, sharing curricula and internship opportunities, as well as conducting cross-national research surveys. Anecdotal evidence would suggest however that, at least in the Australian context, not much has actually been done following the Conference. We propose that lead institutions need to emerge who will be willing to act as a catalyst for change.
- Further, we need collaborative faculty arrangements not only around research, but also around educational processes and materials.
- Low-cost, online accredited courses can be a useful solution for busy wine industry practitioners. We present ideas on one such course further in the paper.

Individual b-schools can then differentiate themselves through a hybrid model which blends face-to-face learning with e-learning by attracting a distinctive pool of students, excelling in certain areas of wine business research and having close engagement with the local / national industry. The latter may involve having senior wine industry executives running parts of the programme. Location of the b-school (e.g., Burgundy, South Australia, Italy, Spain, Chile or California) can also be a differentiating factor. Joint research, cross-border student projects, creation of internship opportunities for students, and faculty and student exchange are possible avenues for collaboration.

4.2. A Possible Model

In this section of the paper we would like to share our experience in the development of an online strategy course for the wine industry, which is well under way as a collaborative arrangement between educators from Melbourne Business School, University of South Australia and Torrens University on the Australian side and Burgundy School of Business in Dijon, France. The delivery of the course – which we named *Strategic management in the international wine industry - a course in applied strategic thinking* will ideally involve collaboration around, for example, course materials, student exercises, and student projects.

The Australian wine industry is one of the countries leading the world in viticulture and oenology (Lewis and Zalan, 2007), and is the fourth largest wine exporter globally. In addition, Australia's supporting research and educational institutions (e.g., the AWRI and the University of Adelaide) are of high international standing, so the course will have credibility with an international audience. Strategic thinking is, however, lacking, as the recent industry crisis in Australia demonstrated. Our analysis of the Australian wine industry suggests that Australia has lost its international competitiveness since the early 2000s, largely as a result of a lack of clear strategic positioning relative to other global competitors (Lewis et al., 2013). Thus, in terms of technical qualifications, the Australian industry has been traditionally well served, but business management education, particularly at post-graduate level, is deficient. This seems to be an issue not specific to Australia, as discussed in the introductory part of the paper.

The underlying principle is that this is an online higher education course, not a MOOC. It is a structured course in terms of pedagogy, and is limited to the enrolled students who will be accepted as post-graduate students, with certain prerequisites. The student numbers are likely to be limited, but the course design and technology can accommodate a very large number of

students compared with traditional face-to-face delivery methods. Hence, the benefits of scale will be significant. The assessment is designed to be more rigorous than in a typical MOOC, and no less rigorous than most post-graduate courses. Students will be given credit for passing the course. Field projects, syndicate work, case study discussions and weekly assignments are an integral part of the course.

In terms of content, the course has been built on our extensive experience as educators in strategic management and our in-depth knowledge of the wine industry as researchers. The course comprises three modules – Business Strategy, Corporate Strategy and Strategy in a Networked World. All materials are up-to-date and have a heavy international component to make them relevant to an international audience. Their practical relevance is ensured through the extensive business experience and involvement in the wine industry of one of the authors of the paper.

In conclusion, we are proposing that collaboratively developed and widely used online courses is one way the wine business education sector can deal with the imminent threats facing higher education. This is best achieved through a global alliance of wine b-schools.

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Exploring self-reported wine reviews as a means to measure the effectiveness of wine education?

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Purpose: To understand if self-reported wine reviews can be used as an indicator of the effectiveness of wine education on novice wine drinkers.

Design/methodology/approach: Chinese international students participating in a wine education research project were given the opportunity to self-report reviews of the wines tasted during each session. Blind tastings were administered before and after education and to the two tested education groups and the control (no education) group. Various descriptive statistics on the size and complexity of the reviews are reported. Leximancer software is used to content analyse the reviews and further statistical analyses are applied.

Findings: Self-reported wine reviews are useful in understanding the effectiveness of wine education on novice wine drinkers.

Practical implications: Wine education is an effective tool in equipping wine drinkers with the conceptual knowledge to describe wine.

Key words: Wine reviews, wine education, novice drinkers, China

1. Introduction and literature review

The Chinese wine market is a major opportunity for the global wine sector. Certain wine producing countries have the added benefit of having a large number of Chinese visitors to their countries. For example, the French are the 3rd most popular tourism destination for the Chinese. There is evidence of targeted programs to reach Chinese tourists with designer, culture-specific wine experiences (Drinksbusiness, 2013). Australia is also a popular tourist destination for China. However, more interesting, it is a major provider of tertiary education for the future Chinese leaders of tomorrow (News.com.au, 2014). These Chinese students are the genesis of this research.

There is evidence (Bowe et al., 2013) that just visiting a country has a positive impact on a person's appreciation of food products. This is fortuitous for any country that has a large influx of Chinese visitors. However, an international student cohort is potentially more valuable in that they will pass a significant amount of time in the country and have the opportunity to acculturate. This presents an opportunity at a strategic level to engage the wine buyers of tomorrow and shape their preferences. Upon returning to China, these young potential oenophiles will hopefully act as 'influencers' and continue to shape the preferences of their friends and family.

The data for this research was collected as part of a Grape and Wine Research Development Corporation (GWRDC) grant issued to investigate the optimal approach to educate millennial international Chinese students living in Australia. A peculiarity of this cohort is their usage of social media and the Internet. The explosion of review websites on the Internet and other forms of digital media for brand and product information have helped online WOM and user generated content become prevalent themes in the marketing literature in recent years (Chevalier and Mayzlin 2006; Chen and Xie, 2008; Kamakura and Moon, 2012). These communication media have made the 'product review' much more prevalent and available to just about anyone rather than just the serious 'wine lover' who might be the only one willing to buy a 500 page wine guide. Product reviews are even more important for an experiential product such as wine as they are difficult to sample before consumption/purchase (Kamakura et al., 2006; Sennecal and Nantel, 2004). There is growing evidence that young people in China not only participate in social media at a higher rate than other countries, but also engage more often and pay more attention to product reviews (Chiu et al., 2012).

Kamakura and Moon (2012) put forth a methodology for drawing online wine reviews from the Internet, content analysing them and creating perceptual maps of the particular reviewer. Their study provides a major contribution into techniques for the future analysis of online reviews. An important distinction between their research and this study is that they are analysing description preferences within reviewers, where this research looks for patterns across reviewers. We take a further divergent approach in this study and look to deconstruct the reviews of novice wine drinkers. However, a limitation of our research could be the inability for these novices to externalise their perceptions of the tasted products (Alba and Hutchinson, 1987). An added concern for this investigation could be the limited language capabilities of the respondents as English is a second and relatively new language.

This research is a pilot study to begin the process of deconstructing the impact of wine reviews on product choice for Chinese consumers. During one wave of this funded research program on wine education, participants were encouraged to write wine reviews of the wines tasted. The basic question of this presented study is whether self-reported wine reviews can be used to measure the effectiveness of wine education using pre- and post-education blind tastings. It is important to note that the cohort investigated should be considered as a convenience sample. They were accessible due to funding provided for a broader wine

research program. The method and results are exploratory. There is certainly value in replication across other markets trying to gain access to the Chinese consumer. This sample is not representative of China as a whole, but they do represent an emerging young cohort of highly educate and future higher income earners with western leaning tendencies and from a commercial perspective are of value to comprehend the most effective tools to form their preferences for wine as is the goal of the broader research grant that this study is a part of.

2. Data collection

The respondents were recruited through Facebook and various international student organisations across three universities in South Australia. They received compensation in the form of a gift voucher from a major retail group in Australia. All data were transcribed from pencil and paper surveys into excel spreadsheets.

Three groups of students were recruited for this study: one control group and two experimental groups. All groups of respondents were asked to participate in a blind tasting of six wines, 20 days apart and asked to do a number of tasks related to rating their preferences, identifying the various generic and specific taste terms they could notice and writing a wine review (this was not forced) of each wine tasted. The two experimental groups attended three one-hour wine education classes and tastings between the blind tastings. There were functional differences in the method of education. However, the nuances of this are left for discussion in other research manuscripts. The control group received no wine education. The data analysed in this paper was drawn from the before and after blind tasting sessions by comparing the control group to the two experimental groups. A total of 103 students took part in the research, with the majority of them taking part in all sessions of their particular group. There were 35 participants in the control group (drop-out rate=5%), 36 participants in group 2 (drop-out rate=10%) and 32 participants in group 3 (drop-out rate=35%).

3. Method and analysis

Descriptive analysis was conducted initially on the reviews. The total number of reviews submitted for all the times tried in both sessions was counted, followed by the average number of words used per review. Upon completion of this analysis, the data was cleaned and placed into a suitable format for analysis using Leximancer (Version 2.23). Leximancer is a text analytics tool. The software is deigned to investigate the content of groups of text or documents and to present the information visually. Leximancer conducts conceptual and relational content analysis and determines core concepts using seed words and an inbuilt thesaurus without the bias of human intervention. Using word frequency and co-occurrence, Leximancer presents a concept map displaying the key concepts and a frequency table of mentions and relations with other concepts (Leximancer Manual, 2007). The pictorial representations of these concepts are not reported due to Campbell, Pitt, Parent and Berthon's (2011) conclusions of the limitation of subjective interpretation of meaning of the graphical outputs. For the purpose of this study, it was used to generate frequency counts of concepts discussed in the reviews for interpretation. The frequency counts of the usage of each specific concept in each wine session are calculated, and the results are compared between sessions for each group and between groups for each session using an independent sample t-test.

4. Results

The results (see Table 1) show that all three groups increased the number of reviews given to the six wines between the two sessions. The control group (G1) increased from 73% to 86% of reviews written per wine tasted, the group who received an education using one particular educational priming (G2) increased from 80% to 100%, while the group who received an

alternate educational priming (G3) increased from 59% to 96% of reviews written per wine tasted. When looking at the average number of words used per review, one can see a decrease of 6% from 8.9 to 8.4 words for the control, compared to G2 and G3 where the number of words went up by 40% (from 9.2 to 12.8 words) and 54% (from 9.4 to 14.4 words). The slight drop in word count for the control group is unexplainable. The increased magnitude, however, in both groups that received education is notable.

Table 1: Summary statistics for the three groups

	G1 Before	G1 After	Diff (%)	G2 Before	G2 After	Diff (%)	G3 Before	G3 After	Diff (%)
No. of participants	37	35		40	36		35	32	
No. of potential reviews	222	210		240	216		210	192	
Total no. of reviews written	161	181		192	216		123	185	
Reviews (%)	73	86		80	100		59	96	
Total no. of words used	1448	1525		1762	2755		1151	2659	
Avg. no. of words (excluding blank reviews)	8.9	8.4	-6	9.2	12.8	40	9.4	14.4	54

A qualitative analysis of the concepts elicited by the participants demonstrates that there are a few concepts - taste, strong, wine, smell, and light - mentioned across all groups and sessions. There is variability among the other concepts listed.

In the control group, the words alcohol, aroma, flavours, mild, nice, rich and time are not mentioned in the 'after' session, while colour, dark, heavy, left, sour and spicy appear. The participants have had no exposure during any aspect of their participation to any form of wine education. Their only interaction was with the tasting and survey instrument. It is possible that exposure to the survey instrument could be the cause of the variation.

In group 2, the terms aroma, bold, cherry, deep, feeling, food, oaky, staying, tongue, weird, and woody are not mentioned in the 'after' session, while the terms alcohol, colour, fruity, mouth, purple, red, rough, smooth spicy and sweet emerge. In group 3, there is no mention of bitter, dark, dry, feel, sour and time in the 'after' session, but the terms alcohol, anise, dates, long, mouth, smooth and star appear. There is a notable aspect in this shift in conceptual elicitation. It is apparent that the key words related to how to taste wines that are presented to the cohort during their three wine education sessions appear in high frequency. (see Table 2)

Table 2: Comparison of frequencies of mentions between sessions - By group

GROUP 1			GROUP 2			GROUP 3		
CONCEPTS	BEFORE	AFTER	CONCEPTS	BEFORE	AFTER	CONCEPTS	BEFORE	AFTER
Alcohol	11	0	Alcohol	0	23	Alcohol	0	20
Aroma	4	0	Bold	3	0	Bitter	11	0
Colour	0	8	Dark	0	36	Dark	4	0
Dark	0	7	Drinking	10	0	Dates	0	10
Drink	24	11	Feeling	2	0	Drink	7	21
Flavours	4	10	Food	4	0	Dry	5	0
Grape	5	0	Fruity	0	24	Fruity	13	33
Heavy	0	9	Light	0	35	Light	12	20
Left	0	5	Mouth	0	17	Long	0	17

Light	10	0	Oaky	4	0	Mouth	0	21
Mild	3	0	Purple	0	11	Smell	16	28
Smell	0	13	Rough	0	23	Sour	9	0
Sour	0	7	Smell	0	28	Spicy	9	38
Strong	13	0	Smooth	0	22	Star	0	8
Sweet	15	0	Spicy	0	46	Strong	23	21
Taste	24	31	Strong	0	17	Sweet	16	25
Time	3	0	Taste	49	63	Taste	15	82
Wine	26	26	Wine	25	39	Wine	21	36

Finally, the number of times each concept emerged in each of three groups and each of the two sessions was analysed (see Table 3). The results were compared for each pair of before-after conditions, and across each of the three pairs of groups before and after the education sessions. The results show that the number of concepts identified in each of three sessions is fairly similar, but the number of times each concept was mentioned in the reviews significantly increases only for the groups that received educational sessions (p-value=0.715 for the control group before vs. after, p-value=0.001 for group 2, and p-value=0.002 for group 3).

In the control group, there is stability across the total frequency of mentions across all reported concepts (147 mentions before and 163 mentions after) showing no statistical significant difference (p-value=0.715). However, there are significant differences in both groups who received education (with different priming) between sessions. In group 2, the number of conceptual mentions increases from a frequency of 97 to 355 (+265% - p-value=0.001), and from 121 to 376 (+210% - p-value=0.002) for group 3.

It is also interesting to note that no significant difference was reported between groups in the first session (p-value=0.252, p-value=0.482, and p-value=0.541 respectively), a result which signals that the three groups are suitable for comparison. Conversely, the results are significantly different in the second session (p-value=0.005 and p-value=0.011 respectively) between the control group and the two groups who received a form of wine education. This result illustrates that education has a positive effect on the respondents' ability to craft a wine review. However, the differences in the educational delivery to each group does not have a significant impact on the frequency of concepts reported (p-value=0.815). This indicates that education has an effect, however our education programs may not have been robust enough to cause a measurable difference.

Table 3: Concept counts and comparisons between groups and sessions

	No. of Concepts	Count of no. of concepts		No. of Concepts	Count of no. of concepts	T-test sig.
Group 1 - Before	16	147	Group 1 - After	15	163	0.715
Group 2 - Before	16	97	Group 2 - After	16	355	0.001
Group 3 - Before	15	121	Group 3 - After	16	376	0.002
Group 1 - Before	16	147	Group 2 - Before	16	97	0.252
Group 1 - Before	16	147	Group 3 - Before	15	121	0.482
Group 2 - Before	16	97	Group 3 - Before	15	121	0.541

Before			Before			
Group 1 - After	15	163	Group 2 - After	16	355	0.005
Group 1 - After	15	163	Group 3 - After	16	376	0.011
Group 2 - After	16	355	Group 3 - After	16	376	0.815

5. Discussion and conclusions

Despite the exploratory nature of this research, the findings are both academically and managerially useful. Academically, this study extends the work of Kamakura and Moon (2012) in three notable areas: 1) demonstrating the applicability of the analysis from within reviewers to between reviewers; 2) proving that it is possible to content analyse novice wine reviews; and 3) illustrating that the impact of education can be measured through the evolution of wine reviews. Managerially, it can be expected that new/novice wine drinkers who are formally educated will be able to communicate more effectively about their wine experiences. The increased breadth in conceptual description will be useful as these people not only communicate with their friends and family, but through social media and review websites where strangers will have the ability to access their opinions (Chiu et al. 2012). This pilot study serves to inform and will assist in scoping future research on self-reported reviews and evolving wine preferences. The collected reviews themselves will be utilised in a future experiment looking at the impact of novice versus expert reviews on wine choice.

6. Acknowledgments

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**WHERE IN THE WORLD ARE VARIOUS WINEGRAPE
VARIETIES GROWN? EVIDENCE FROM A NEW DATABASE**

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Abstract

*The **purpose** of this paper is to alert readers to a new, freely available, database that provides information on which winegrape varieties are grown in what regions of the world. Its **approach** is to report vine bearing areas and a range of indicators in two periods (circa 2000 and 2010) for more than 2000 varieties, of which nearly 1,300 are 'primes' and the rest are their synonyms. The data refer to 611 regions in 44 countries that together account for 99 percent of the world's wine production. To aid use of the database, there is an accompanying e-book that contains dozens of charts and more than 150 tables that report shares and other indicators to summarize developments in winegrape bearing areas over the first decade of this millennium. The **findings** include several non-trivial changes that have taken place over this period, perhaps the most striking being the increase in the share of the global area that is devoted to red varieties, which has risen from 49% to 56%. Cabernet Sauvignon and Merlot are now the most-planted varieties, pushing Airen into 3rd place, and Tempranillo and Syrah now 4th and 6th, having been 24th and 35th in 1990. Another striking finding is the increased concentration in plantings, particularly on French varieties. In 2000, 21 varieties accounted for half the bearing area globally, but by 2010 that number had fallen to 15. In the New World the top 7 varieties cover half the area. One **practical value** of the database is that it reveals how similar each region is to other regions and to the world in terms of their varietal mix, and how rapidly each region is changing its relative position globally. This is important as producers seek to boost their competitiveness in the wake of wine's globalization by exploiting their geographical and varietal distinctiveness.*

Key words: Winegrape bearing area, Regional specialization by variety, Varietal intensity index, Varietal similarity index

WHERE IN THE WORLD ARE VARIOUS WINEGRAPE VARIETIES GROWN? EVIDENCE FROM A NEW DATABASE

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I. INTRODUCTION

Globalization of the world's wine markets over the past two or three decades has added to both the opportunities and competitive challenges for producers seeking to differentiate their product to attract the attention of discerning consumers (Anderson 2004). The traditional practice of displaying regional names on wine bottle labels is increasingly being supplemented by grape varietal names. Its commercial success, especially for lower-priced New World wines, has led to some freeing up of labelling laws in the European Union to allow that practice. Meanwhile, producers in the New World are realizing the marketing value of following Europe's traditional producers in going beyond country of origin to regional and sub-regional labelling so as better differentiate their product.

In addition to striving to product-differentiate, producers are also well aware of the impact climate change is having on their winegrapes. Adaptation strategies include switching to warmer-climate or more-resilient grape varieties, and re-locating to regions at higher latitude or altitude so as to be able to retain the firm's current mix of grape varieties. Especially in the New World, where regions are still trying to identify their varietal comparative advantages and where regulations do not restrict varietal choice, winegrowers are continually on the lookout for attractive alternative varieties that do well in climates similar to what they expect theirs to become in the decades ahead. Moreover, the biotechnology revolution is providing new opportunities for breeders, which is increasing their interest in exploring traits of little-known varieties.

Also of concern is that the diversity of winegrapes is narrowing to a few 'international' varieties. Some vigneronns in the Old World are beginning to respond by reverting to neglected local varieties, while in the New World a small but growing group of producers are exploring alternatives to the dominant varieties. How concentrated is the current bearing area compared

with earlier times, and how different is that concentration in the Old World compared with the New World?

Such biodiversity concerns, together with the above marketing and climate adaptation needs, are generating a rapidly growing demand for information on which winegrape varieties are grown in the world's various wine regions. Wine atlases such as Johnson and Robinson (2013) provide a great deal of information about where winegrapes are grown, and Robinson, Harding and Vouillamoz (2012) draw on the latest DNA research to provide a detailed guide to the world's commercially grown 'prime' varieties and their various synonyms. However, neither of those seminal books, nor any other wine atlas or wine encyclopaedia, provides comprehensive global data on the bearing areas of winegrapes by region and variety.¹

To fill this lacuna, we have compiled such a global database and provide several indicators to capture changes over the first decade of this century in the varietal mix of the world's wine regions (Anderson and Aryal 2013). Its features include the following:

- it has data for 2010 as well as 2000, plus some limited varietal data for the world in 1990;
- it covers 44 countries which together account for 99 percent of global wine production;
- it has 611 regions and more than 2,000 varieties (of which nearly 1,300 are 'primes' and the rest are their synonyms); and
- it has removed spurious differences in varietal mixes resulting from different varietal names being used for what have been shown recently to be DNA-identical varieties; and
- it is accompanied by an e-book (Anderson 2013) that contains dozens of charts and more than 150 tables that report shares and other indicators to summarize developments in winegrape bearing areas over the first decade of this millennium.

The purpose of this paper is to provide a brief guide to the types of information compiled in this new database and in an accompanying e-book (Anderson 2013). Section II of the paper describes the database in more detail. Section III then provides an empirical picture of the changing varietal distinctiveness of the world's wine regions. This is necessarily very selective, but at least it provides a sense of the breadth of the database. Because of the Bulletin's space limitations, it is not possible to also highlight here the depth of the database in terms of its within-country regional detail.

II. THE GLOBAL DATABASE

¹ The handbook by Fegan (2003) provides information circa 2000 on key regions in the main wine-producing countries, and on the key varieties in those countries, but it does not provide a matrix of variety by region data. Anderson (2010) assembled a preliminary database for a dozen countries and covered 166 regions and 258 varieties, but many of those varieties were not unique as that study did not re-name the synonyms of primes.

Most key wine-producing countries provide some data on bearing area of winegrapes by variety and region. Data for most of the member countries of the European Union are available from one source (Eurostat 2013), while for other countries they are typically available online from a national wine industry body or the national statistical agency. Key exceptions are the United States and Canada, whose data are collected at the state/provincial level and only for those jurisdictions with significant wine production.

The database relates to two periods: the turn of the century, and a decade later. The reason for choosing those periods is that they correspond to the most-recent decadal agricultural census periods of the European Union, which were 1999 or 2000 and 2009 or 2010. In the case of non-EU countries, data have been sought for the earlier year in the Northern Hemisphere and the latter year in the Southern Hemisphere, in which the data refer to vintages that were only 6 months apart (although not all other countries or regions had data for exactly those years).

Table 1 lists the 44 countries included and the number of winegrape regions and prime varieties within each of those countries for which bearing area data are available in the two chosen periods.² The availability of area data by region within each country varies considerably across countries, and is not identical in the two periods. The available data for France has more regions in 2010 than in 2000 while the opposite is true of Italy, for example. For the United States the greatest regional detail is of course for California, where 80-90% of the winegrapes are grown, but there was also regional detail within New York State and Oregon by 2000 and also by 2010 for what is now the state with the second-largest winegrape area, Washington. Australia has an unusually large number of regions because data began to be collected by Geographical Indication following the introduction of that GI legal institutional arrangement in the 1990s. In 2010, there are just 12 of our 44 countries for which no regional breakdown is available, and most of them are small wine producers.

The relative importance of those countries in the global bearing area of winegrapes and in global wine production is shown in Table 2. That table also shows the other countries reported by FAO to be producing wine, which collectively account for just 1 percent of global wine output (1.06% in 2000, 0.96% in 2010). So as to be able to estimate the global winegrape area, we assume that 'Rest of the world' group's share of the world's winegrape area is the same as its share of world wine production in each of our two periods (see second-last row of Table 2). There are some other countries (especially in the Middle East) that are substantial grapegrowers, but the vineyard areas devoted to table and drying grapes are ignored here.

As for winegrape varieties, our key source for identifying DNA-identical varieties is Robinson, Harding and Vouillamoz (2012). It provides a detailed

² The number of varieties reported to Eurostat by Germany was 57 in 1999 and 48 in 2009, but more-detailed data are available nationally at www.germanwines.de. Our database was revised in April 2014 to incorporate those more-detailed varietal data (which raise the relative importance of red varieties), and the tables and figures below have been revised to incorporate those changes.

guide to 1368 commercially grown 'prime' varieties, and it also identifies their various synonyms used in various countries. Those authors chose the 'prime' name according to the name used in its currently perceived country or region of origin.³ In addition, the *Vitis International Variety Catalogue* (JKI 2013) provides additional DNA-based varietal information. The Robinson/Harding/Vouillamoz book's prime varieties account for 93% of the global winegrape area in 2010 and 86% in 2000, VIVC accounts for 2%, and the rest were listed in neither of those sources. The list of varieties maintained by the OIV (2012) was not used because it is based on the names used in member countries and thus does not identify primes. A little over one-quarter of the global winegrape area is devoted to varieties that are known locally by their synonyms rather than their prime; and just under one-quarter is planted to primes that have no known synonym.

All but a few winegrape varieties (and 1% of the total global area) are from the *Vitis vinifera* species.⁴ Berry colours are adopted from Robinson/Harding/Vouillamoz, although we simplified their five categories to just three: the darkest two we call red, the lightest two we call white, and the middle grey colour we call 'non-red/white' (which accounts for just 2.1% of the global area in 2010, of which almost half is Pinot Gris/Grigio, and 1.3% in 2000).⁵

Reliable area data for 2000 were unavailable for nine of those 44 countries (China, Japan, Kazakhstan, Mexico, Myanmar, Peru, Thailand, Turkey, and Ukraine). The combined share of global wine production of those nine countries in 2000 was only 1.6% (compared with 5.1% in 2010). Nonetheless, to capture their unusual varietal contributions in the earlier period, they are included as a group (called "Missing 9 in 2000") by assuming each of them had (i) the same varietal mix in 2000 as in 2010 and (ii) a national area that was the same fraction of its 2010 area then as was its national wine production volume.

³ There are two exceptions to our use of prime names. One concerns Pinot, which is thought to have existed for two millennia and which therefore has many clones. Until recently the most popular clones – which include all three of our colour categories – were thought to be distinct varieties, and have been marketed separately to different niches in the market. For that reason we retain separately the following five, each of which has several synonyms: Pinot Blanc, Pinot Gris, Pinot Meunier, Pinot Noir, and Pinot Noir Précoce. The other exception is Garnacha, which also has both red and white mutations. In that case we retain separately the following four, each of which has several synonyms: Garnacha Blanca, Garnacha Peluda, Garnacha Roja, and Garnacha Tinta.

⁴ A total of just 22 varieties have been identified as not *Vitis vinifera*: Baco Blanc, Bailey, Bordo, Campbell Early, Catawba, Concord, Couderc, Couderc Noir, Delaware, Fredonia, Herbemont, Isabella, Jacquez, Juliana, Landot Noir, Niagara, Noah, Norton, Oberlin, Patricia, Seibel, and Venus. More than half of those are in Brazil, and one-sixth are in each of Moldova and the United States.

⁵ Numerous countries have an 'other varieties' category for each region, some of which may include varieties that are not *Vitis vinifera*. Only some countries sub-divide that category according to berry colour. When no sub-division is provided, we assume the proportions of 'other varieties' that are red and white are the same as the proportions in the named varieties for that region.

The number of regions is not the same for each country in the two periods, which means that some regional detail is necessarily lost through aggregation when we seek to compare varietal mixes of each region in the two sample years. Even so, there is as many as 410 matching regions globally. In the next section we will have space to report only the extent of similarity of varietal mixes between countries, however. We also provide aggregate data for the Old World and the New World sets of countries. For that purpose we define the Old World as all of continental Europe (not including the United Kingdom but including Cyprus, Lebanon, Turkey and all the countries that were part of the former Yugoslavia or Soviet Union). For simplicity all other countries are considered here as the New World. The latter therefore include, somewhat unusually, the Asian winegrape-growing countries for which we have data (China, Japan, Myanmar and Thailand), although their winegrape area in aggregate is still small.

In short, the database involves two years (2000 and 2010), up to 611 regions (in 44 countries), and up to 1289 varieties (once synonyms are re-named). It is thus possible to slice this three-dimensional database (which has 1.3 billion cells, but of course the bearing area in many of those cells is zero) in any of three ways: across regions, across varieties, or across years. There are also some global data for the 50 or so most important varieties for 1990, drawn from Fagen (2003).

To assist in digesting such large spreadsheets, we summarize the data through calculating numerous shares and a pair of share-based indexes.

III. A SELECTION OF FINDINGS

In this section the macro picture of developments in the global vineyard, in terms of the changing diversity of winegrape varieties, is first presented. Attention then turns to two sets of indicators. One indicates the importance of a variety in a region not relative to other varieties in that region but rather relative to that variety in the world (called the Varietal Intensity Index). The other measures the extent to which the varietal mix of one region or country matches that of another region or country or the world (called the Varietal Similarity Index).

III.1 The global macro picture

Countries differ markedly in their winegrape bearing areas with the big three, Spain, France and Italy, accounting for 54% of the world's winegrape vineyard area in both 2000 and 2010. The next biggest is the United States, but its share is less than 5%. The same four countries dominate global wine production volume and value,⁶ accounting for 60% in aggregate. However, the 2010 rankings among them in wine production differ considerably from that in winegrape area: France and Italy are ahead of Spain in wine production volume, and France and the United States are well ahead of Italy

⁶ The value data are estimated for 2009 by Anderson and Nelgen (2011, Table 175).

and Spain in terms of pre-tax value of wine production, followed by Germany and Australia (Figure 1). One reason for these differing rankings is that the huge La Mancha region of Spain has bush vines sparsely planted to the drought-resistant but low-quality Airén variety, much of whose grapes are used to produce brandy.

There is also a huge variance across countries in the shares of national cropland under winegrapes. It ranges from 6-13% in the six countries where this indicator is highest (Portugal, Chile, Italy, Georgia, Moldova and Spain) to less than 0.2% in Australia, China and the United States (Figure 2).

The global area of winegrapes has declined by almost 6% over the first decade of this millennium, adding to the 8% fall in the final decade of the 20th century. This is despite increases of around 30% in the United States and Georgia, 40% in the Czech Republic, and 220% in New Zealand in the most recent decade. The biggest falls were in Spain (13%), Portugal (20%) and several countries in southeastern Europe (Table 3).

Turning to the global area under different varieties, the data reveal that the extent of varietal concentration in the world's vineyard has increased non-trivially over the decade to 2010. Half the world's plantings in 2000 were accounted for 21 varieties but, by 2010, that total had dropped to 15 varieties. This varietal concentration is more apparent in New World countries, where the top seven varieties account for over half of all plantings, whereas 16 varieties are needed in the Old World to get to the half-way point (Figure 3).

Those changes in varietal concentration in the world's vineyard are reflected in the marked changes in the global rankings of varieties over the period since 1990. Cabernet Sauvignon and Merlot have more than doubled their shares to take them from 8th and 7th to 1st and 2nd places, and Tempranillo and Chardonnay have more than trebled their shares to take 4th and 5th places, while Syrah has jumped from 35th to 6th. Sauvignon Blanc and Pinot Noir are the other two to move into the top ten. These have all been at the expense of Airén which has fallen from 1st to 3rd, Garnacha from 2nd to 7th, and Trebbiano from 5th to 9th. The fastest-growing and fastest-contracting varieties are depicted in Figure 4.

These changes ensure that the chart of the world's top 35 varieties as ranked in 1990 shows a quite different mix and rank ordering to the comparable chart for 2010 (Figure 5). The decline in varietal concentration in the world's vineyard in the 1990s was due to the large fall in the importance of the six most-common winegrape varieties in 1990 (especially low-quality Airén and Sultaniye) and the beginning of the rise in importance of Merlot, Cabernet Sauvignon, Chardonnay and Syrah as regions sought to improve the quality of their winegrapes.

Even in just the decade to 2010 there have been considerable changes in the relative importance globally of the top 30 red and top 30 white varieties (Figure 6). The two largest non-red/white varieties are Cereza, whose global ranking over that decade fell slightly from 30th to 34th, and Pinot Gris/Grigio, whose global ranking rose very considerably from 44th in 2000 to 19th by 2010.

In aggregate these changes have meant that the overall share of red

varieties in the global winegrape area has risen considerably, from 49% to 56% in the decade to 2010. That share varies hugely across countries though, from 96% in China and even higher in North Africa to just 12% in Georgia and 8% in Luxembourg; and it has changed far more in some countries than in others, whether looked at in terms of red's share of the national total or in national hectares (Figure 7). Of the countries that have increased the share of red varieties in their national mix, the majority are in the Old World. In actual area, the largest rises in red's share are in Spain, the United States and Italy while the largest falls are in Romania, Bulgaria and France. Within the red and white winegrape categories, the varietal concentration summarized in Figure 3 has increased almost equally for red and white winegrapes over the 2000 to 2010 period.

Another way to express varietal concentration is to examine the share of global area devoted to varieties by their country of origin. Between 2000 and 2010 the global winegrape share devoted to varieties of French origin rose from 26% to 36%. French varieties are especially dominant in the New World's vineyards, where their share averaged 67% in 2010, up from 53% in 2000; but they also increased their share of Old World's vineyards, from 20% to 27% over that decade. Spain is the next most important country of origin, accounting for 26% of the world's area in 2010, down from 28% in 2000, which is just a little above Spain's own share of the global bearing area of 22-24%. Italian varieties are third at 13%, the same as Italy's share of the global area.⁷ Portugal's are fourth at 3%, followed by Croatia's and Germany's at a little over 2% each.

Declining varietal diversity is also reflected in the share of the total area of winegrapes for a country or the world that is held by the top variety, or the cumulative shares of the top few varieties. Globally, the top 35 varieties accounted for 59% of the world's winegrape bearing area in 2000, but by 2010 that share was 66%. At the national level, as many as 12 of the 44 countries in 2010 (up from 7 in 2000) had more than one-third of their total area under just their top variety. Perhaps even more striking is that only 6 of the 44 countries have less than one-third of their total winegrape area under their top three varieties.

III.2 Varietal Intensity Indexes

Attention can now turn from the above macro picture to examining the extent to which individual regions or countries are differentiating themselves from others by specializing in certain varieties. In doing so it is helpful to

⁷ In terms of *number* of varieties, however, Italy's global winegrape share is more than three times that of Spain. Of the nearly 1300 prime varieties identified for 2010, the most popular country of origin is Italy with 328, followed by Portugal (196), France (120), and Spain (88). Then three other countries contribute between 55 and 70 varieties each (Hungary, the United States and Croatia). Most of the remaining varieties are from Southeastern Europe and the countries surrounding the Black Sea.

calculate a Varietal Intensity Index (VII), defined by Anderson (2010) as a variety's share of a region's total winegrape area divided by that variety's share of the global winegrape area. This index is thus a complement to the regional or national share information in that it indicates the importance of a variety in a region not relative to other varieties in that region but rather relative to that variety in the world as a whole. It also complements information on a region's or country's share of the global area for a variety: like that share, the VII can change for a region – even if its area remains unchanged – when that variety's area in the rest of the world changes.

For example, France's total area and varietal mix altered relatively little over the decade to 2010, yet its VIIs altered considerably. On the one hand, the VIIs for its four biggest varieties of French origin (Merlot, Syrah, Cabernet Sauvignon and Chardonnay) each fell by 10% or more, in each case because bearing areas of those varieties expanded considerably in the rest of the world. On the other hand, France's VIIs for two of its three biggest varieties of non-French origin (Garnacha Tinta and Trebbiano Toscana) rose by about 10%, in those cases because their bearing areas fell much more in the rest of the world than in France. Mazuelo was the big exception: its area in France fell 45% over that decade, compared with a fall of 37% globally, so France's VII for that variety VII fell (from 4.3 to 3.6).

By contrast, the global area of each of Spain's seven biggest varieties apart from Tempranillo contracted, and so even though the Spanish areas of each of those seven also contracted, the contractions were smaller in Spain than globally and hence Spain's VII rose for almost all of them (the exception being Garnacha Tinta, whose VII fell slightly).

Another example of global interest relates to Argentina, where Cot (main synonym: Malbec) was the country's 3rd biggest variety in 2000 but its biggest in 2010 (15.4% of the national winegrape area), when it accounted for 76% of the world's Cot plantings. Since that variety represented only 0.88% of the global area of all varieties in that year, Argentina's VII for that variety was $(0.154/0.088 =) 17.5$ in 2010. But that was only slightly larger than its VII of 16.2 in 2000, because over that decade the global area of Cot rose by two-thirds. Note also that for Argentina, Cot is not even ranked in the top 25 varieties in terms of VIIs in 2010, because there are numerous varieties that are unique to Argentina and that therefore have the even higher VII of 23. (When a variety is grown only in one country, its VII is necessarily the inverse of the proportion of the global winegrape area accounted for by that country – and so is identical for each unique variety in that country and year.)

As a final example, consider Syrah (main synonym: Shiraz). This is the most important variety in Australia, and its share of Australia's total winegrape area rose from 22% to 28% in the decade to 2010. However, because Syrah has become more important in other countries as well, its share of the global vineyard area has almost doubled, rising from 2.1% in 2000 to 4.0% in 2010. As a result, Australia's share of Syrah's global area has fallen from 29% to 23% and so Syrah's VII for Australia has fallen from 11 to 7 over that decade. Even so, Australian regions continues to dominate the list of the top 25 regions in the world in terms of regional VIIs for Syrah

– just as regions within the United States dominate the list for Tribidrag (main synonym: Zinfandel), Spanish regions dominate the Airen list, and Argentinean regions dominate the Cereza list.

The fall in the VII for Australia is not unique to Syrah. Indeed of all 15 varieties for which there were more than 1000 hectares in Australia in 2010, there are only four whose VII has risen since 2000. Only a small fraction of that can be explained by Australia's share of the global area becoming larger, since its share has risen only marginally over that decade (from 2.7% to 3.3%). The main reason for the VII falling for most of the key varieties in Australia is that – as with France – the country's mix of varieties is becoming more similar to the global average. The next sub-section provides a way of quantifying the extent of varietal mix similarity of regions and countries with the world (and also with each other).

III.3 Varietal Similarity Indexes

While the Varietal Intensity Index is helpful in indicating the extent of specialization of a region or country in any particular variety vis-à-vis the rest of the world, it would also be helpful to have a measure of how similar or different a region's overall mix of varieties is to that of other regions or the world. For that purpose an index of similarity of varietal mix between regions or countries or over time has been developed (Anderson 2010), adapting an approach introduced by Jaffe (1986). This index provides an indication of how closely the shares of different varieties in the winegrape bearing area in one location match the shares in another location or in the world (or in that same location in another time period). The closer (further away) that match, the closer the index is to one (zero). That is, the index will be zero for pairs of regions with no overlap in their winegrape varietal mix, and one for any pairs of regions with an identical varietal mix. For the in-between cases, the index is conceptually similar to a correlation coefficient. Like a correlation coefficient, it is completely symmetric so the results can be summarized in a symmetric matrix with values of 1 on the diagonal, plus a vector that reports the index for each region relative to the global varietal mix.

Various questions can be addressed with the help of this Varietal Similarity Index (VSI), given the heterogeneity across regions and even countries in their winegrape varietal mixes. The most obvious is: how similar is each country to the global average mix of varieties? The range of national-world VSI's is quite wide, with a handful of countries above 0.55 and another handful below 0.15 (Figure 8). Not surprisingly, the mix in France is closest to the global mix, but there have been major changes since 2000: France's is now closer to the world average, reflecting the fact that many other countries have adopted more French varieties over that decade. That global move toward French varieties has also contributed to the sharp rise in the VSI for the United States and the small drop for Spain. Australia's VSI has risen in part because so many other countries have expanded their plantings of Australia's most-popular variety, namely Syrah.

The fact that the VSI with the world rose between 2000 and 2010 for

each of the five biggest New World countries and for two of the three biggest Old World countries is a further reflection of the recent increase in varietal concentration in the world's vineyard over that decade. Meanwhile, the VSIs for many of the former communist countries of the Old World have fallen substantially since 2000 as those countries continue to restructure their vineyards and move toward more-profitable (including local) varieties. Hungary, for example had just under a quarter of its winegrape area under varieties of Hungarian origin in 2000, but by 2010 that share was 37%. The countries with the lowest VSIs vis-à-vis the world include those that are highly specialized in just white wines (e.g., Austria, Georgia, Luxembourg).

The VSI is also useful for indicating, for any one region or country, how close its varietal mix in 2010 is to that in 2000. Figure 9 lays that out for each country for which there are comparable data for the two periods. While some countries have an across-time VSI close to one (Switzerland 0.99, France and Austria 0.97), others are much lower (United Kingdom 0.32, Russia 0.25) which reflects considerable changes in their varietal mix of bearing areas over that decade.

The main use of the VSI is in examining the extent to which a region or country has a varietal mix similar to that of other regions or countries. In both 2000 and 2010, the New World countries have varietal mixes closest to other New World countries, whereas the varietal mixes of Old World countries are closest to one of their neighbours (Table 4, including last rows). The latter is especially the case among the countries of Eastern Europe and the former Soviet Union. This shows up in Figure 10, which ranks countries according to their VSI with the country that has the closest varietal mix to theirs: eleven of the first 14 countries are former communist countries of the Old World, and their closest-matched country is also from that region – as are several of their other five closest-matched countries shown in Table 4. So even though those countries tend to have varietal mixes very different from the world average (they are biased toward the right-hand side of Figure 8), those mixes are very similar to each other. By contrast, several West European countries have no other country with a similar varietal mix, notably Italy, Portugal, Spain and Greece. Such varietal distinctiveness may or may not be a good thing economically, depending on how unique their terroir is and how valued their varieties are by consumers.

There are of course considerable differences in varietal mixes between regions within each country as well, as detailed in Section VII of Anderson (2013) where information is presented for more than 500 regions within 29 of the 44 sampled countries. For example, the VSIs across the regions within Australia, even vis-à-vis the world, range from 0.30 to 0.70 in 2010. Such regional VSI information may be helpful for producers thinking of altering their varietal mix or re-locating to a region with a higher latitude or altitude so as to maintain their firm's current varietal mix in the wake of global warming.

IV. POSSIBLE EXTENSIONS TO THE DATABASE

This paper provides just a few snapshots of a great deal of the newly assembled information on which winegrapes have been grown in various parts of the world during the first decade of the 21st century. It does not explain *why* those varieties are produced where they are though. Is it driven mainly by what grows best in each location (the terroir explanation)? Are non-French producers concentrating on major French varieties because – particularly in newly expanding wine-producing countries – France’s strong reputation with those varieties makes it easier for them to market their product? Do those varieties just happen to do well in a wide range of growing environments? Have they been found to be desirable for blending with traditional varieties of a region? These and myriad other questions can be addressed more easily now that a comprehensive global database of winegrape bearing areas. Furthermore, hopefully that database will be built on in the years ahead as more countries assemble new data that are more disaggregated regionally and by variety.

Acknowledgements

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Figure 1: National shares of global winegrape area, wine production volume and wine production value, 2010 (%)

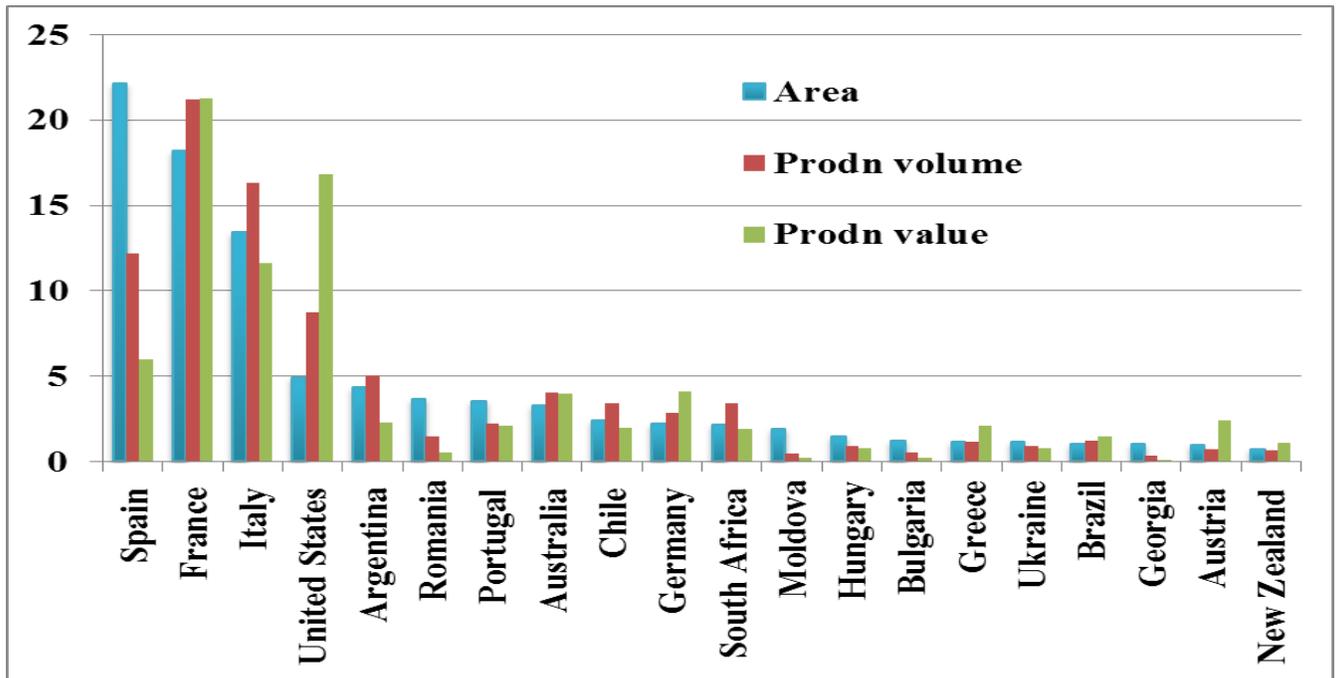


Figure 2: Share of total agricultural crop area under winegrapes, 2009-11 (%)

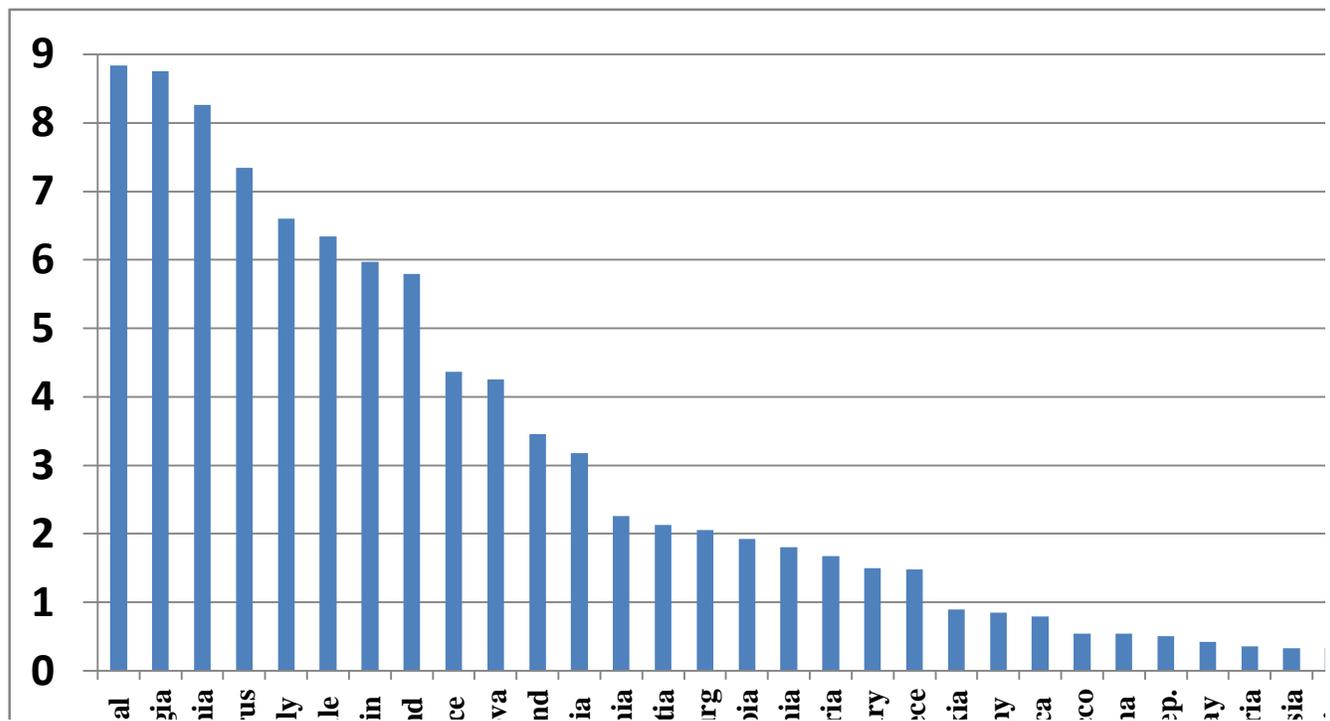
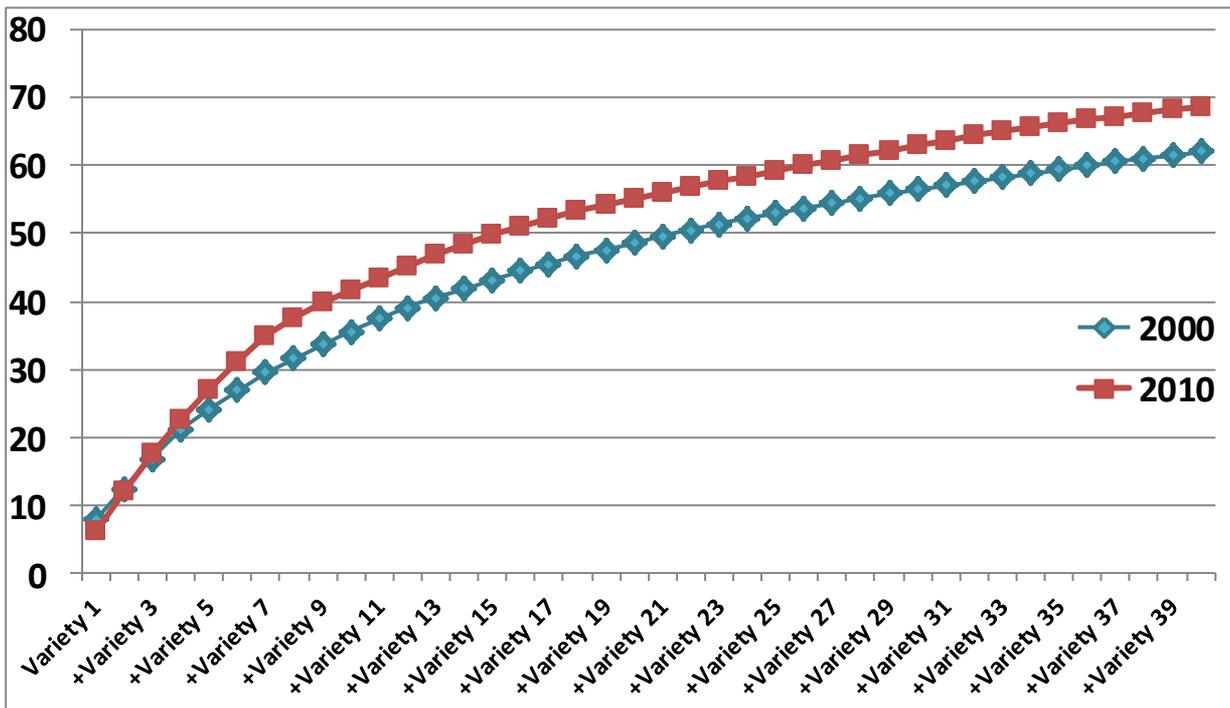


Figure 3: Cumulative varietal shares of global winegrape area, 2000 and 2010 (%)

(a) All countries



(b) Old World and New World countries

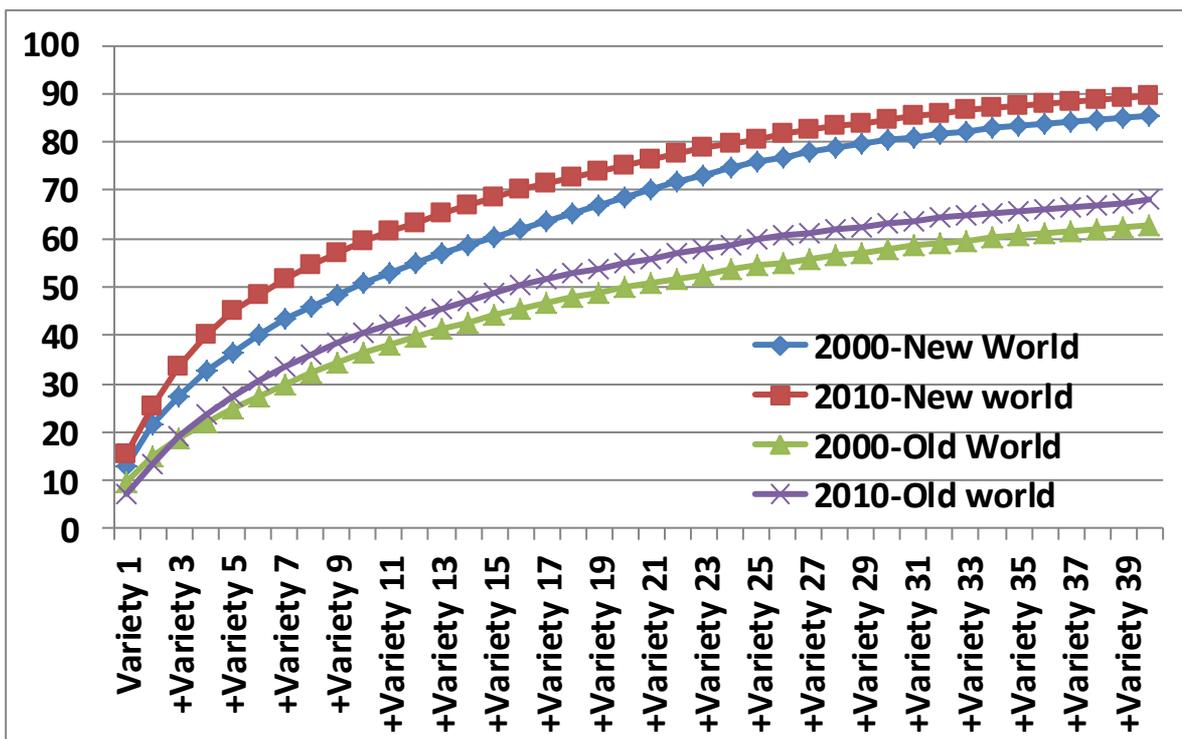
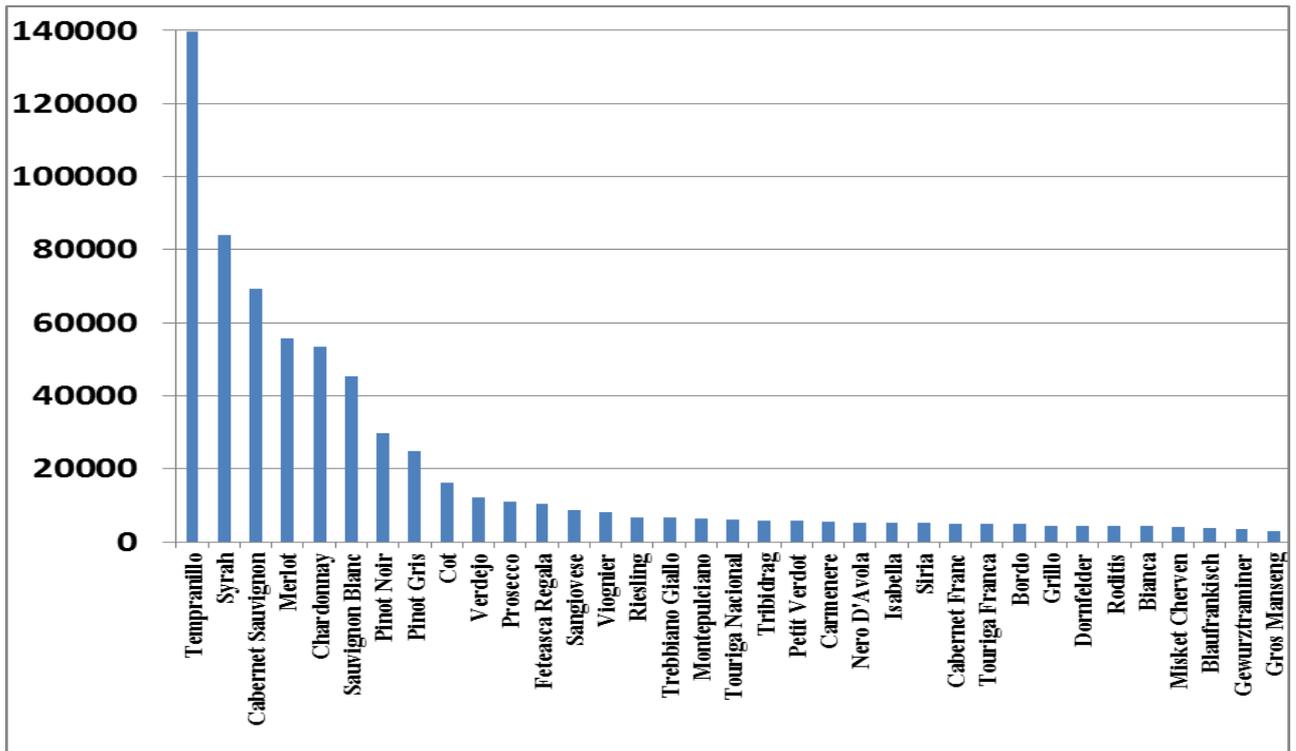


Figure 4: World's fastest-changing winegrape varieties, 2000 to 2010 (ha)

(a) Fastest-expanding



(b) Fastest-contracting

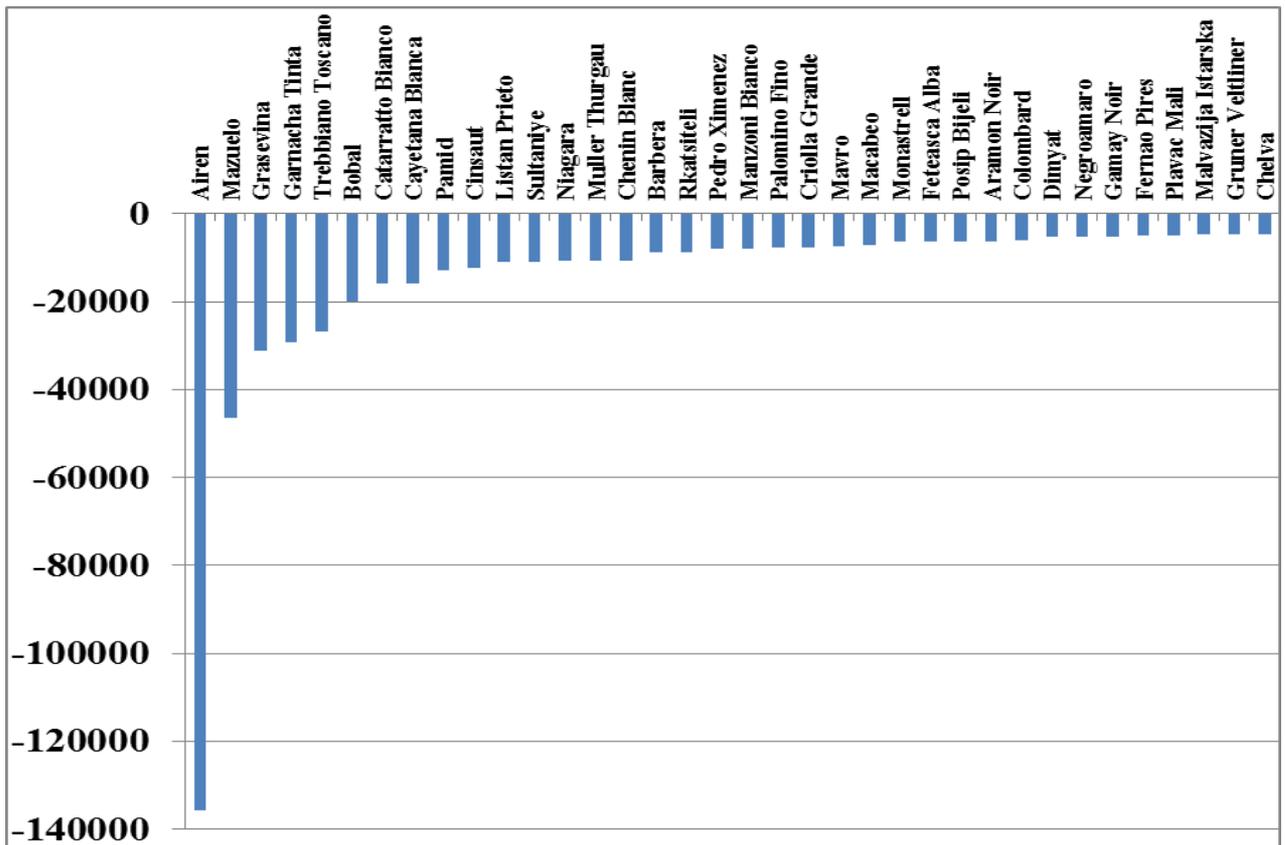
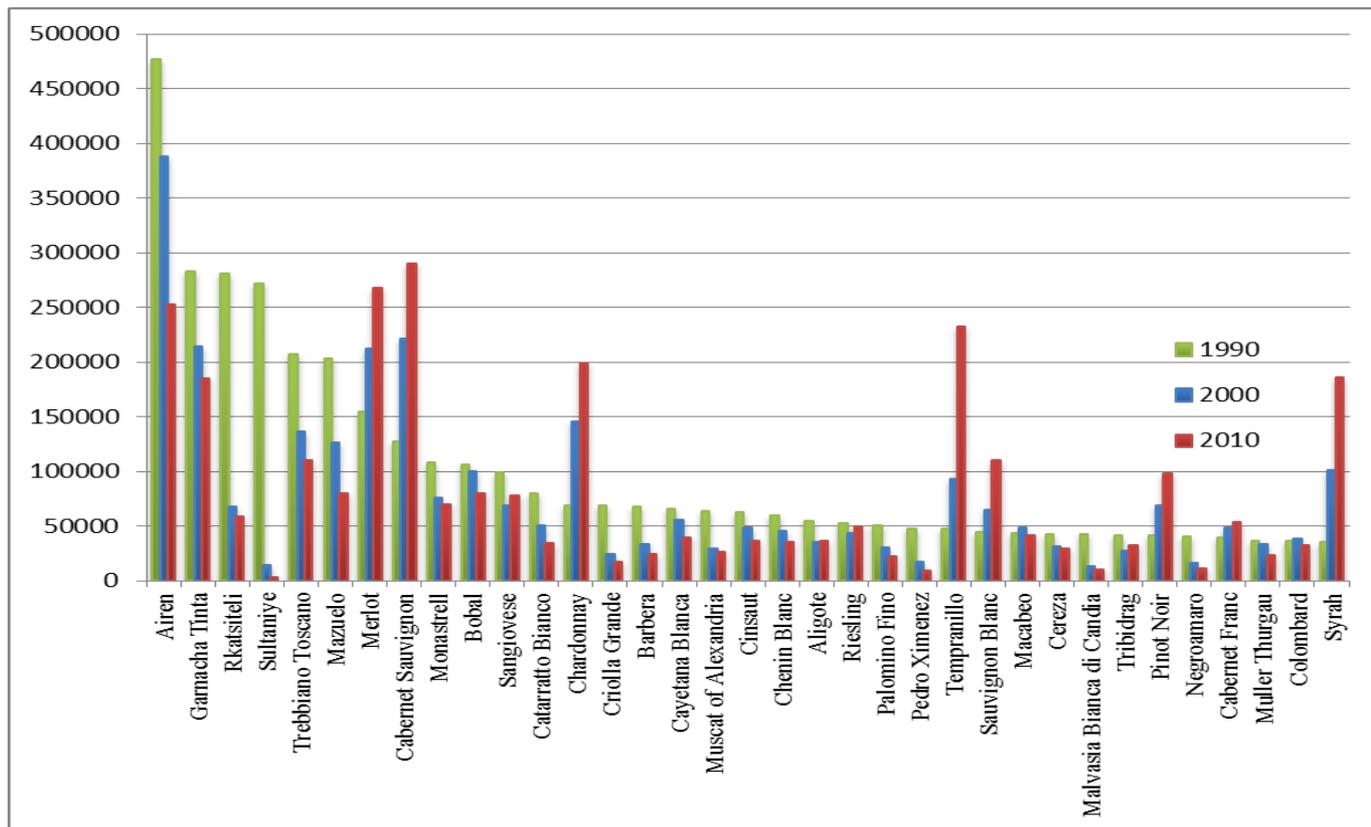


Figure 5: World's top 35 varieties in 1990, 2000 and 2010 (ha)

(a) Ranked by 1990 area



(b) Ranked by 2010 area

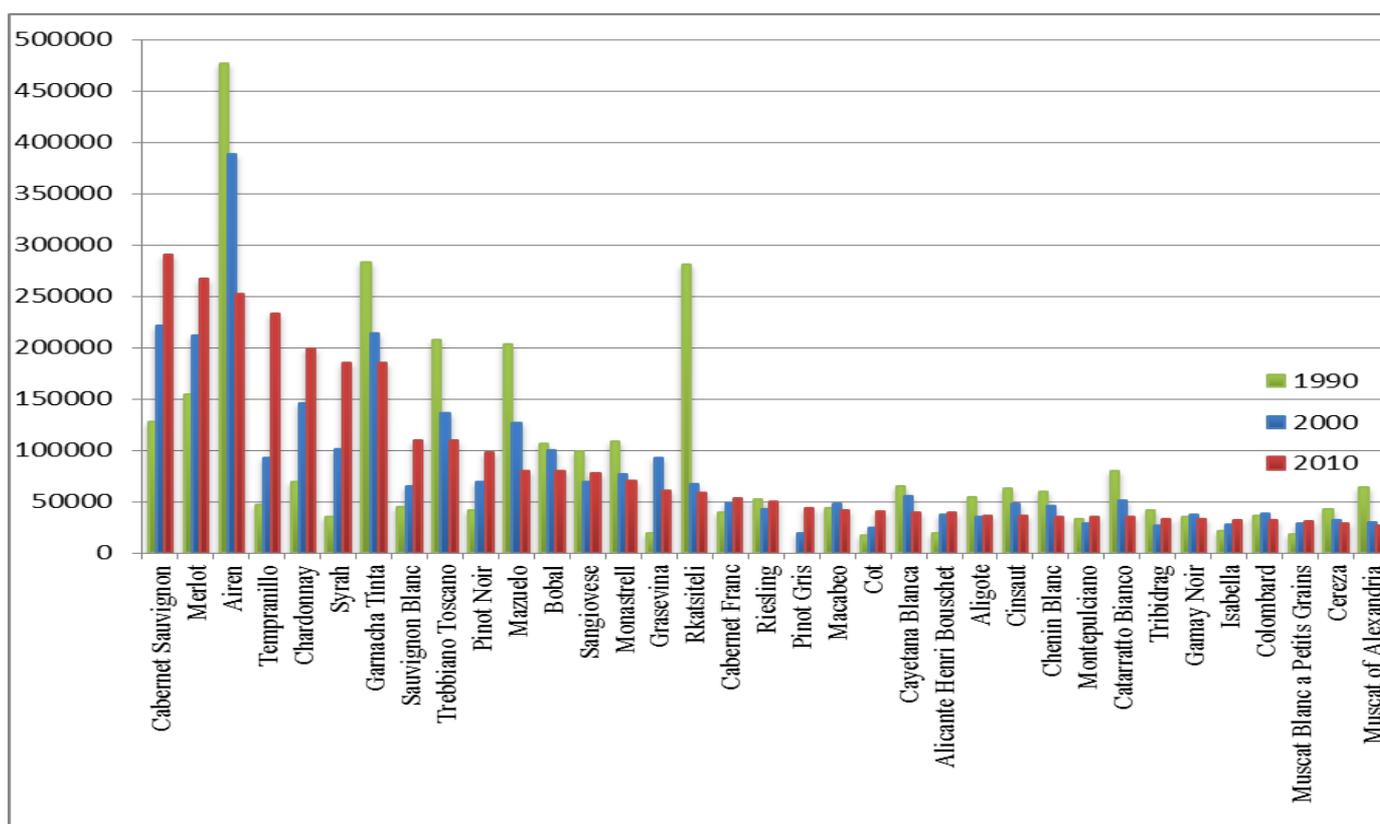
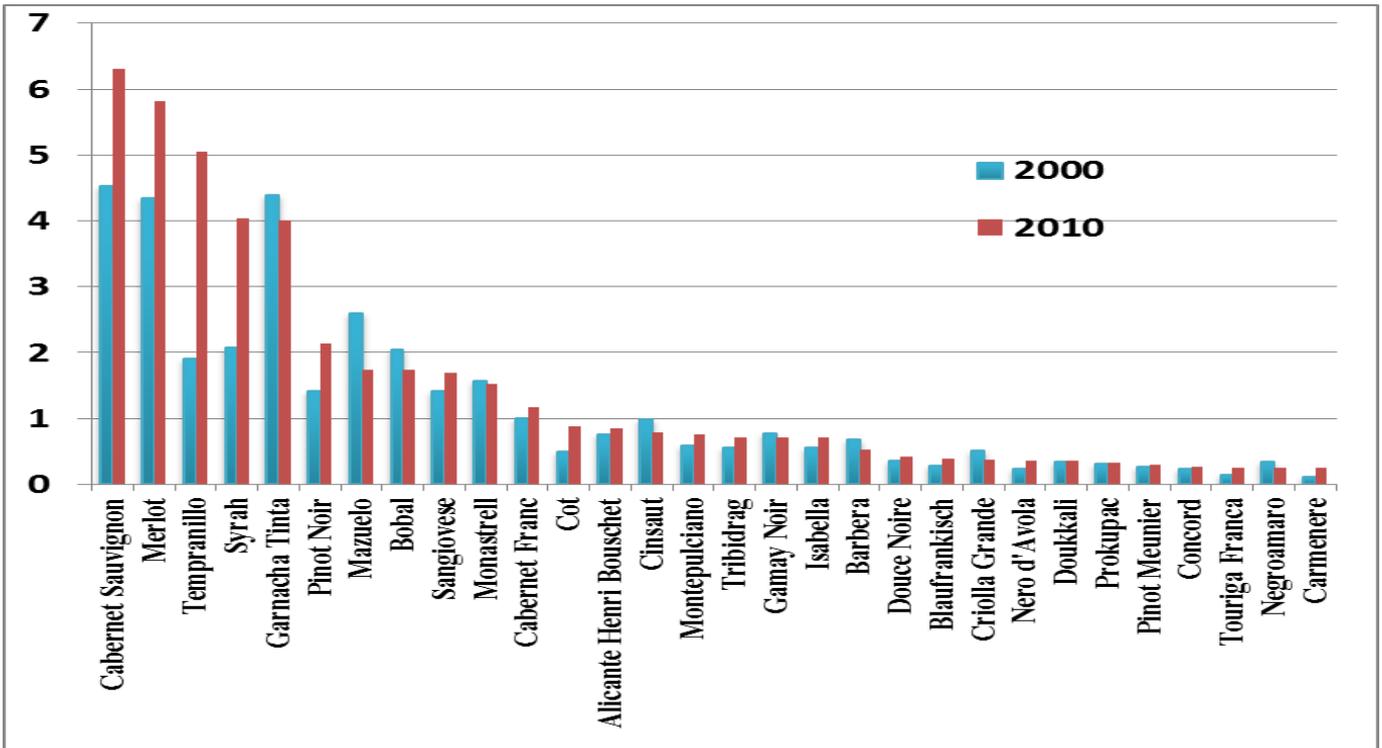


Figure 6: Top 30 red and top 30 white varieties' shares of global wine area, 2000 and 2010 (%)

(a) Reds



(b) Whites

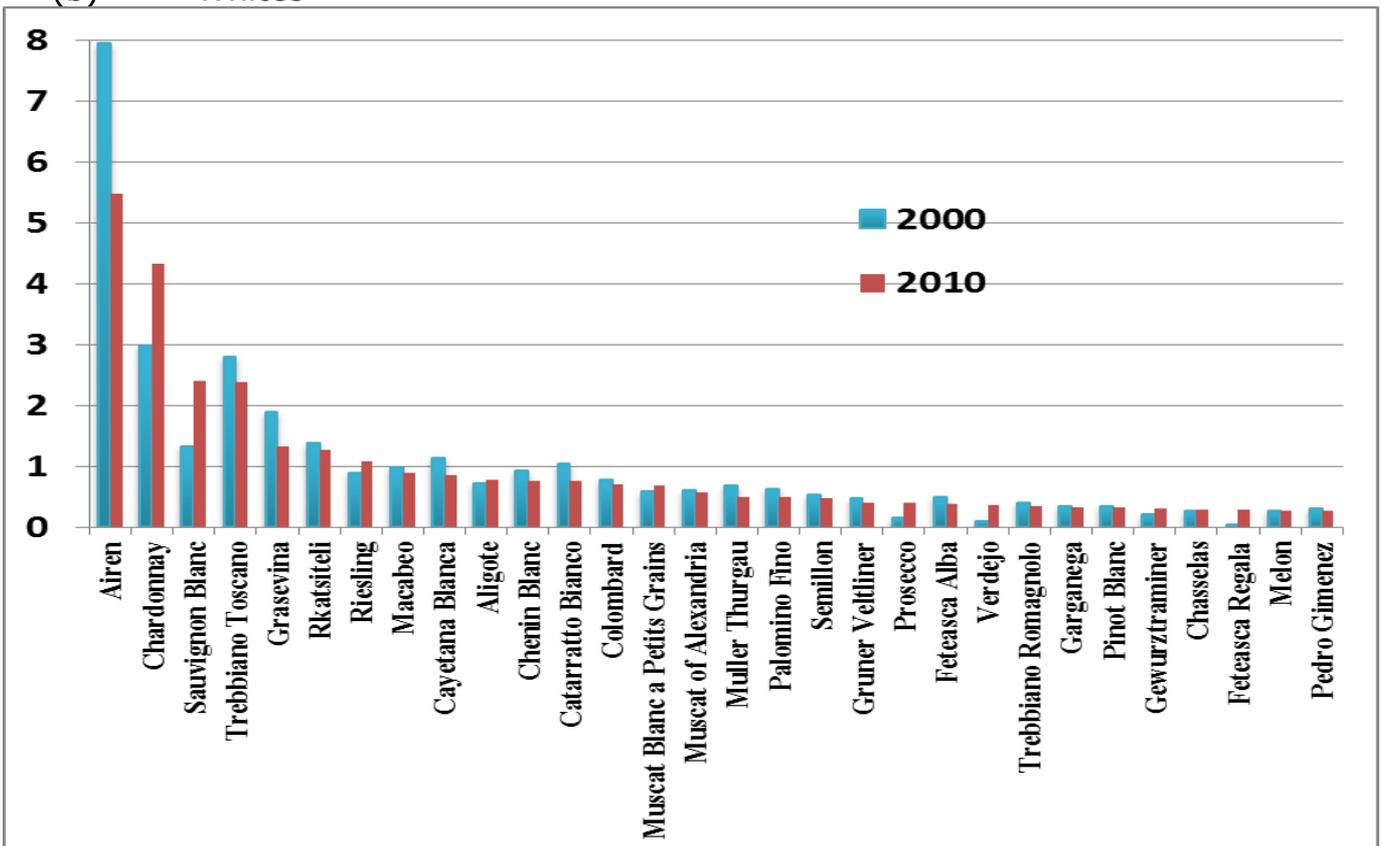


Figure 7: Shares of red varieties in national winegrape area, 2000 and 2010 (%)

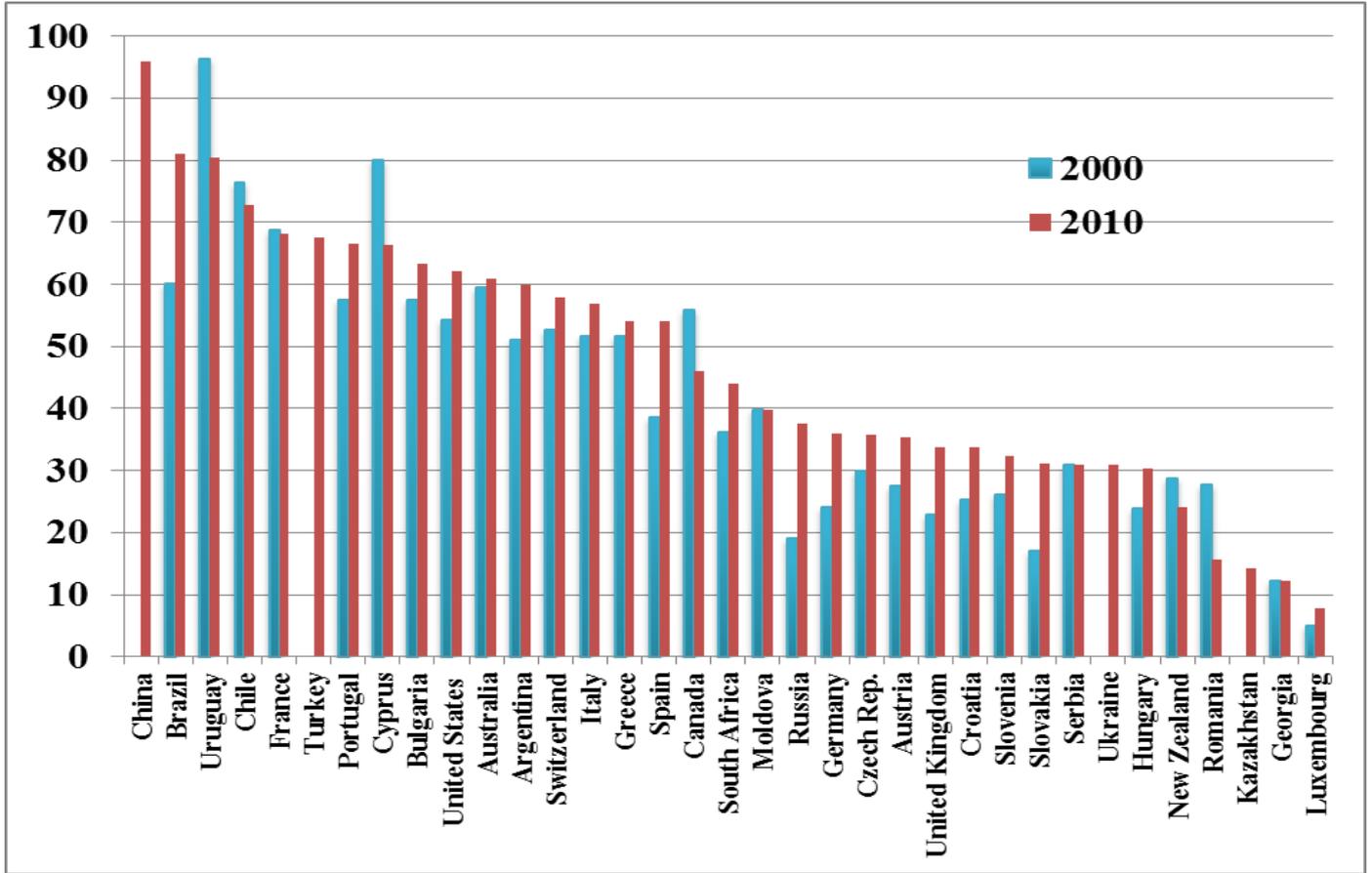


Figure 8: Index of Varietal Similarity of individual countries with the world, 2000 and 2010

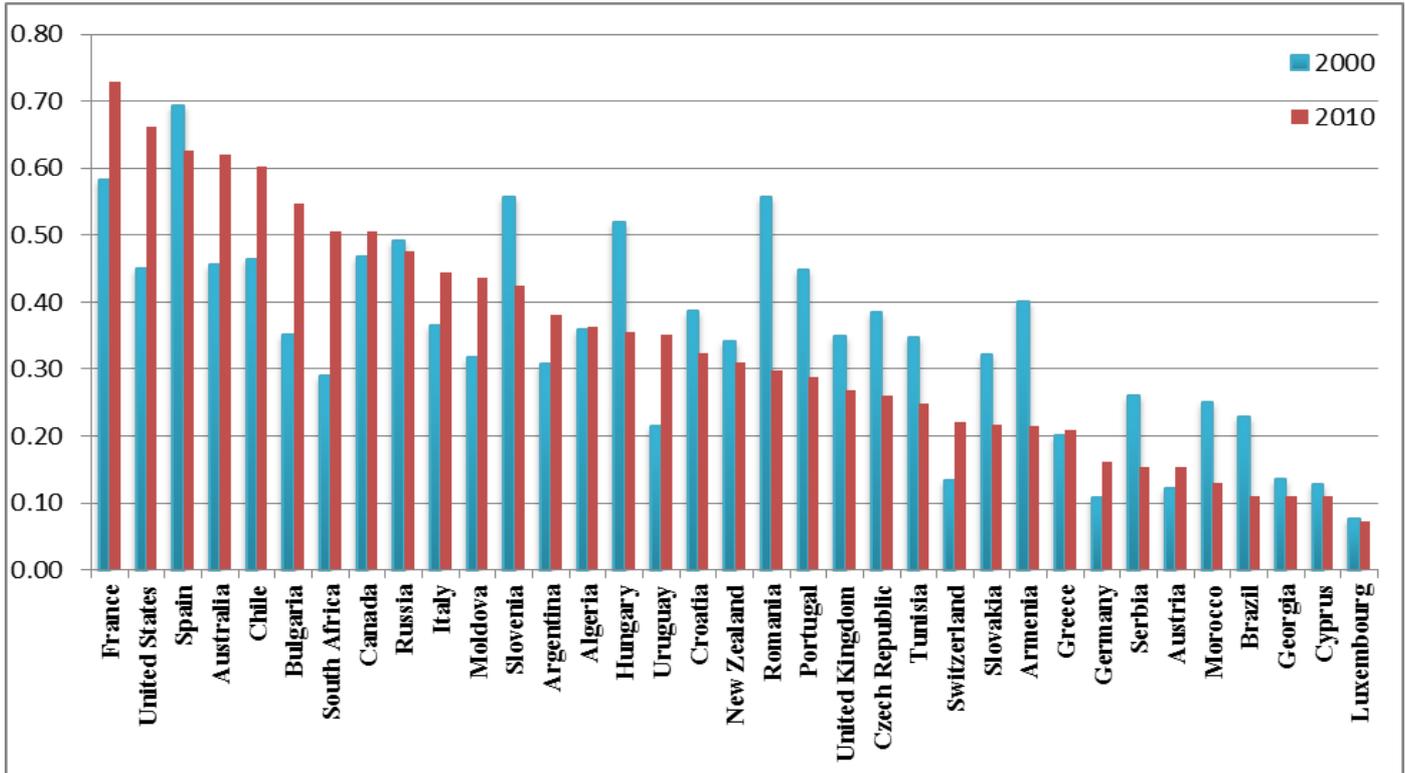


Figure 9: Index of Varietal Similarity between 2000 and 2010 for each country

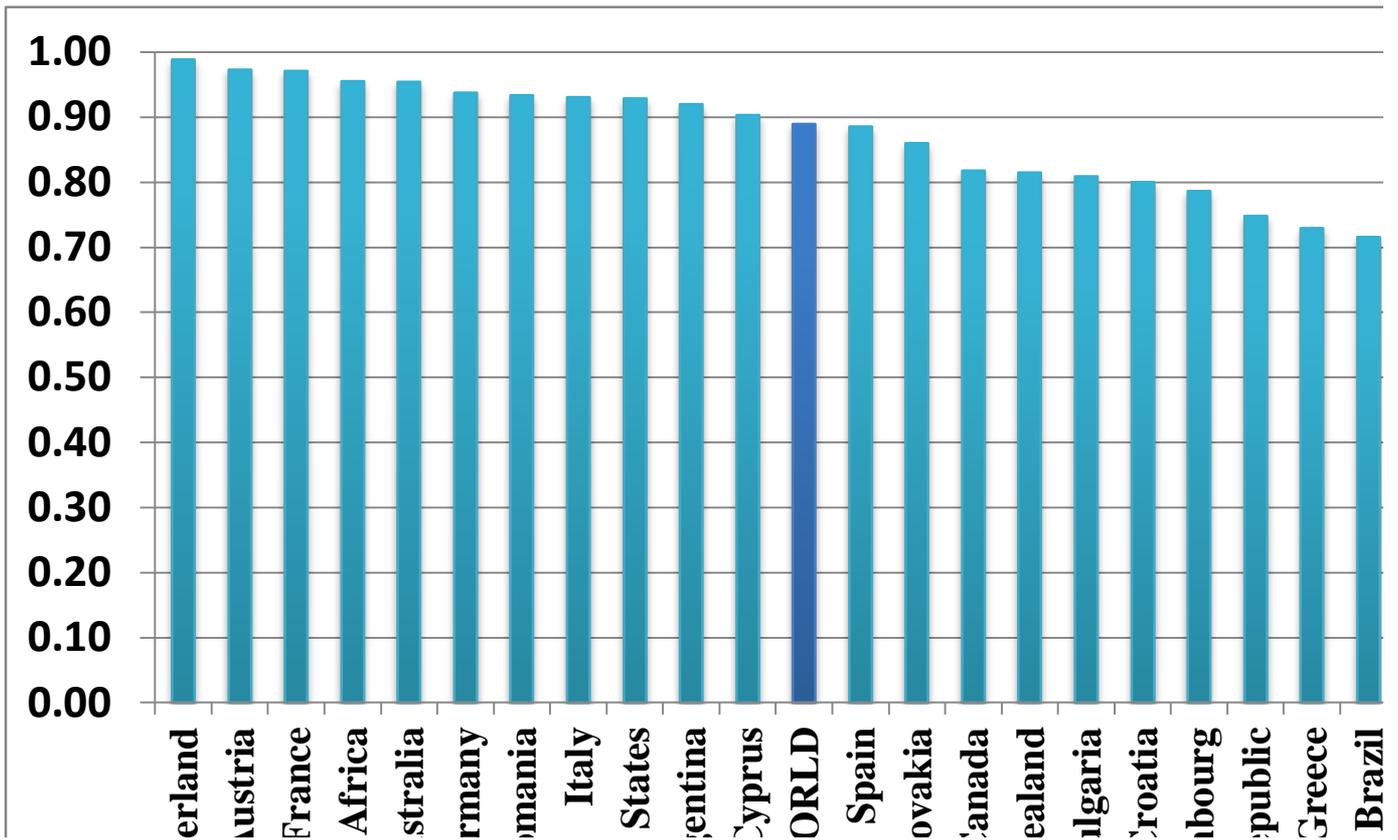


Figure 10: Index of Varietal Similarity of each country with the country with closest varietal mix, 2010

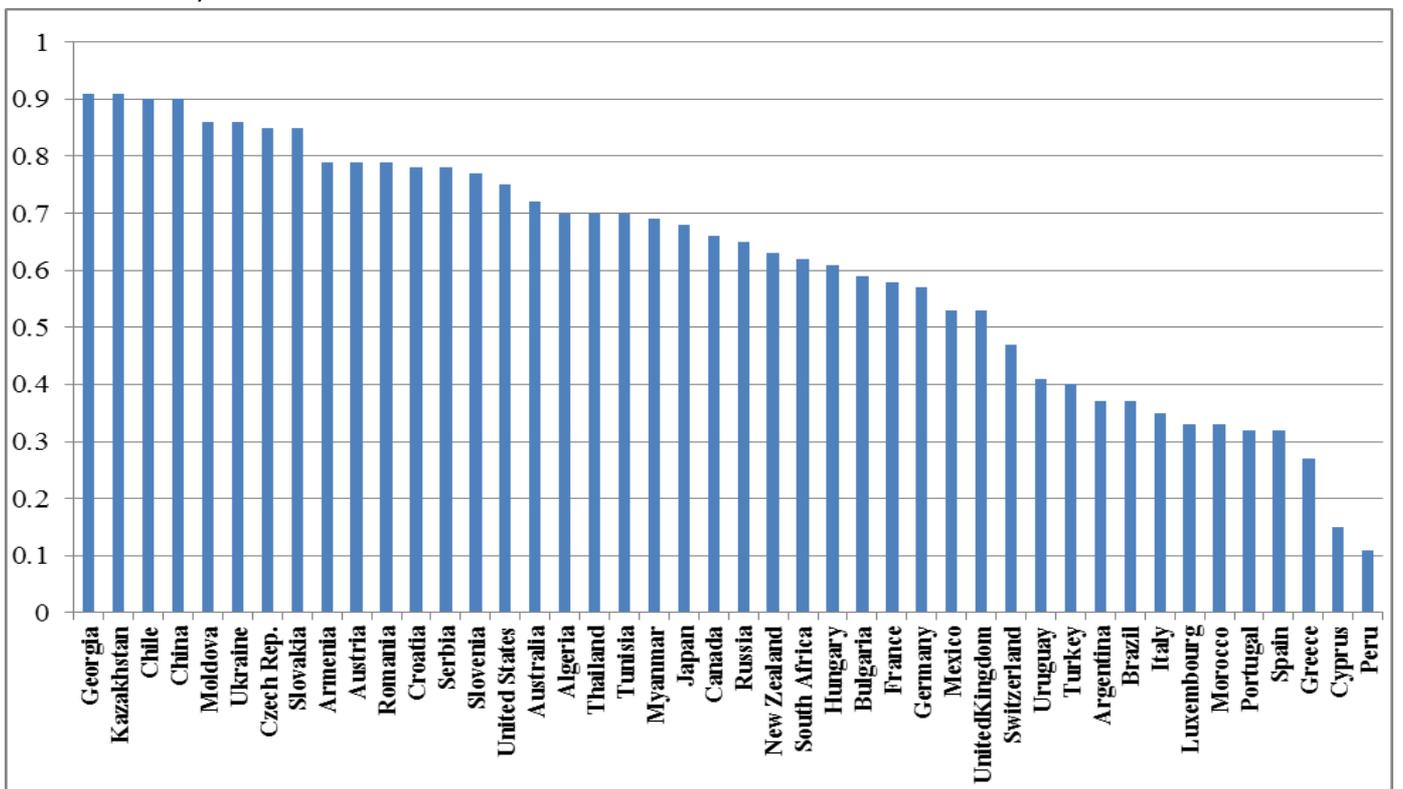


Table 1: Number of regions and prime varieties, by country, 2000 and 2010

<i>Country</i>	<i>Code</i>	<i>2000</i>		<i>2010</i>	
		<i>No. of regions</i>	<i>No. of varieties</i>	<i>No. of regions</i>	<i>No. of varieties</i>
Algeria	DZ	1	8	1	8
Argentina	AR	3	31	28	111
Armenia	AM	1	6	1	6
Australia	AU	76	43	94	40
Austria	AT	4	33	4	35
Brazil	BR	1	19	1	101
Bulgaria	BG	1	21	6	16
Canada	CA	1	20	2	76
Chile	CL	8	38	9	54
China	CN			10	17
Croatia	HR	1	7	13	72
Cyprus	CY	1	2	1	15
Czech Rep.	CZ	1	10	2	32
France	FR	29	285	45	96
Georgia	GE	1	21	1	21
Germany	DE	13	68	13	91
Greece	EL	13	60	13	56
Hungary	HU	1	32	22	137
Italy	IT	103	323	110	396
Japan	JP			5	15
Kazakhstan	KZ			6	15
Luxembourg	LU	1	11	1	10
Mexico	MX			5	17
Moldova	MD	1	39	1	39
Morocco	MA	1	8	1	8
Myanmar	MM			1	11
New Zealand	NZ	10	22	11	45
Peru	PE			4	30
Portugal	PT	9	80	9	266
Romania	RO	1	18	8	86
Russia	RU	1	11	2	55
Serbia	RS	1	4	1	4
Slovakia	SK	1	11	6	35
Slovenia	SI	1	6	10	21
South Africa	ZA	9	68	9	68
Spain	ES	36	159	36	150
Switzerland	CH	18	51	18	58
Thailand	TH			1	13
Tunisia	TN	1	9	1	9
Turkey	TR			7	35
Ukraine	UA			1	22
United Kingdom	UK	1	9	1	44
United States	US	61	84	89	129
Uruguay	UY	1	8	1	41
"Missing 9 in 2000" M9		1	101	na	na
Sample total		414	1018	611	1289

Table 2: National shares of global winegrape area and wine production volume, 2000 and 2010

<i>Sampled wine-producing countries</i>	<i>Share (%) of global area</i>		<i>Share (%) of global wine production</i>		<i>Non-sampled wine-producing countries</i>	<i>Share (%) of global wine prodn, 2010</i>
	2000	2010	2000	2010		
Spain	23.97	22.13	13.11	12.16	Macedonia	0.31
France	17.54	18.23	21.19	21.19	Belarus	0.08
Italy	12.91	13.47	19.72	16.31	Uzbekistan	0.08
United States	3.56	4.91	8.02	8.76	Albania	0.06
Argentina	4.08	4.33	5.00	5.03	Montenegro	0.06
Romania	4.51	3.67	1.95	1.46	Turkmenistan	0.06
Portugal	4.16	3.52	2.72	2.24	Lebanon	0.05
Australia	2.65	3.27	2.91	4.03	Cuba	0.04
Chile	2.31	2.40	2.02	3.40	Madagascar	0.03
Germany	2.11	2.20	3.93	2.86	Egypt	0.03
South Africa	1.90	2.17	2.62	3.40	Azerbaijan	0.03
Moldova	1.82	1.93	0.33	0.45	Bolivia	0.03
Hungary	1.76	1.50	1.34	0.90	Lithuania	0.02
Serbia	1.40	1.49	0.59	0.78	Israel	0.02
Bulgaria	1.95	1.21	0.62	0.56	Bosnia & Herz.	0.01
Greece	1.03	1.17	1.41	1.13	Belgium	0.01
Ukraine		1.13		0.93	Zimbabwe	0.01
Brazil	1.07	1.06	1.09	1.20	Malta	0.01
Morocco	1.01	1.05	0.14	0.11	Paraguay	0.01
Georgia	0.76	1.03	0.25	0.33	Latvia	0.01
Austria	0.98	0.98	0.90	0.72	Kyrgyzstan	0.01
New Zealand	0.20	0.69	0.21	0.65	Ethiopia	0.01
Algeria	0.61	0.65	0.15	0.19		
China		0.64		5.68		
Russia	1.14	0.55	0.99	2.24		
Croatia	1.21	0.45	0.70	0.18		
Tunisia	0.34	0.36	0.15	0.08		
Slovenia	0.48	0.35	0.14	0.09		
Czech Rep.	0.23	0.35	0.19	0.17		
Switzerland	0.31	0.32	0.45	0.38		
Turkey		0.28		0.09		
Slovakia	0.32	0.27	0.16	0.10		
Armenia	0.23	0.24	0.02	0.02		
Canada	0.17	0.22	0.17	0.19		
Cyprus	0.37	0.19	0.20	0.04		
Uruguay	0.18	0.16	0.34	0.22		
Kazakhstan		0.15		0.06		
Mexico		0.12		0.15		
Japan		0.08		0.26		
Peru		0.08		0.22		
Luxembourg	0.03	0.03	0.05	0.04		
United Kingdom	0.02	0.03	0.00	0.00		
Thailand		0.00		0.00		
Myanmar		0.00		0.00		
"Missing 9 in 2000"	1.63	n.a.	5.14	n.a.		
Rest of the world	1.06	0.96	1.06	0.96		
Sample total	98.94	99.04	98.94	99.04	Non-sample total	0.96

Table 3: National winegrape areas and change between 2000 and 2010

<i>Country</i>	<i>Area in 2000 (hectares)</i>	<i>Area in 2010 (hectares)</i>	<i>Changes in area (hectares)</i>	<i>Changes in %</i>
Algeria	30200	30200	0	0.0
Argentina	201113	201060	-54	0.0
Armenia	11206	11206	0	0.0
Australia	130602	151788	21,186	16.2
Austria	48496	45533	-2,963	-6.1
Brazil	52840	49412	-3,428	-6.5
Bulgaria	95997	56133	-39,864	-41.5
Canada	8498	10096	1,598	18.8
Chile	113966	111525	-2,441	-2.1
China		29545		
Croatia	59448	20754	-38,694	-65.1
Cyprus	18282	8608	-9,674	-52.9
Czech Rep.	11331	16242	4,911	43.3
France	864846	846880	-17,966	-2.1
Georgia	37419	48001	10,582	28.3
Germany	104233	102186	-2,047	-2.0
Greece	50878	54389	3,511	6.9
Hungary	86886	69715	-17,171	-19.8
Italy	636662	625700	-10,962	-1.7
Japan		3715		
Kazakhstan		6938		
Luxembourg	1348	1304	-44	-3.3
Mexico		5465		
Moldova	89844	89844	0	0.0
Morocco	49600	49000	-600	-1.2
Myanmar		75		
New Zealand	9942	31964	22,022	221.5
Peru		3831		
Portugal	205003	163522	-41,481	-20.2
Romania	222173	170292	-51,881	-23.4
Russia	56332	25628	-30,704	-54.5
Serbia	68999	68999	0	0.0
Slovakia	15580	12637	-2,944	-18.9
Slovenia	23472	16354	-7,118	-30.3
South Africa	93656	101016	7,361	7.9
Spain	1181805	1028258	-153,547	-13.0
Switzerland	15042	14820	-222	-1.5
Thailand		149		
Tunisia	16836	16836	0	0.0
Turkey		12856		
Ukraine		52293		
United Kingdom	873	1198	325	37.2
United States	175693	227948	52,255	29.7
Uruguay	8880	7657	-1,223	-13.8
"Missing 9 in 2000"	80221	(114867)	(34646)	(43.2)
Old World subtotal	3955626	3569091	-386,535	-9.8
New World subtotal	922575	1032480	109,905	11.9
World total	4878202	4601571	-276,630	-5.7

Table 4: Each country's six most-similar winegrape countries^a in the world according to the Varietal Similarity Index, 2010

Algeria	0.70	TN	0.55	FR	0.31	MX	0.20	TR	0.18	MM	0.18	US
Argentina	0.37	AU	0.36	CL	0.31	US	0.30	CN	0.29	ZA	0.27	FR
Armenia	0.79	RO	0.59	KZ	0.50	GE	0.32	SI	0.30	UA	0.26	HR
Australia	0.72	US	0.70	TH	0.67	CL	0.64	MM	0.62	ZA	0.58	FR
Austria	0.79	SK	0.71	CZ	0.43	HU	0.26	SI	0.26	HR	0.20	RS
Brazil	0.37	MD	0.14	UA	0.12	UY	0.08	RO	0.08	US	0.07	BG
Bulgaria	0.59	JP	0.56	CL	0.55	CN	0.54	US	0.49	MX	0.48	FR
Canada	0.66	US	0.54	JP	0.51	AU	0.49	FR	0.45	CL	0.45	UK
Chile	0.90	CN	0.75	US	0.67	AU	0.65	RU	0.58	ZA	0.57	JP
China	0.90	CL	0.59	RU	0.59	US	0.55	BG	0.53	MX	0.48	AU
Croatia	0.78	RS	0.77	SI	0.50	HU	0.50	SK	0.39	RO	0.39	CZ
Cyprus	0.15	MX	0.12	TN	0.10	FR	0.10	AU	0.10	CL	0.09	DZ
Czech Rep.	0.85	SK	0.71	AT	0.57	DE	0.56	HU	0.44	SI	0.39	HR
France	0.58	AU	0.57	US	0.55	DZ	0.52	JP	0.49	CA	0.49	CL
Georgia	0.91	KZ	0.63	UA	0.50	AM	0.38	MD	0.19	BG	0.13	RU
Germany	0.57	CZ	0.41	LU	0.39	CA	0.35	UK	0.33	CH	0.30	SK
Greece	0.27	BG	0.26	MA	0.24	MX	0.22	RO	0.21	SI	0.18	AM
Hungary	0.61	SK	0.58	SI	0.56	CZ	0.50	HR	0.43	AT	0.37	RS
Italy	0.35	FR	0.35	US	0.29	BG	0.28	JP	0.27	CA	0.25	AU
Japan	0.68	US	0.59	BG	0.57	CL	0.54	CA	0.52	FR	0.49	RU
Kazakhstan	0.91	GE	0.68	UA	0.59	AM	0.44	MD	0.21	BG	0.20	RO
Luxembourg	0.41	DE	0.33	CZ	0.2	SK	0.19	CA	0.12	HU	0.12	SI
Mexico	0.53	CN	0.51	CL	0.49	BG	0.43	FR	0.41	ZA	0.41	US
Moldova	0.86	UA	0.48	RU	0.44	US	0.44	KZ	0.43	CL	0.41	NZ
Morocco	0.33	TN	0.26	EL	0.21	BG	0.19	MX	0.17	DZ	0.14	SI
Myanmar	0.69	TH	0.64	AU	0.63	NZ	0.45	ZA	0.38	FR	0.32	TR
New Zealand	0.63	MM	0.41	MD	0.38	ZA	0.36	CL	0.36	CA	0.35	US
Peru	0.11	HU	0.07	SK	0.06	MX	0.05	CZ	0.05	SI	0.04	MM
Portugal	0.32	ES	0.14	MX	0.14	MM	0.13	TH	0.12	AU	0.10	AR
Romania	0.79	AM	0.46	SI	0.39	HR	0.35	RS	0.32	HU	0.30	BG
Russia	0.65	CL	0.59	US	0.59	CN	0.49	JP	0.48	MD	0.48	UA
Serbia	0.78	HR	0.60	SI	0.43	SK	0.37	HU	0.35	RO	0.27	CZ
Slovakia	0.85	CZ	0.79	AT	0.61	HU	0.50	HR	0.47	SI	0.43	RS
Slovenia	0.77	HR	0.60	RS	0.58	HU	0.47	SK	0.46	RO	0.44	CZ
South Africa	0.62	AU	0.60	US	0.58	CL	0.49	TH	0.47	FR	0.45	MM
Spain	0.32	PT	0.17	MX	0.16	FR	0.13	DZ	0.11	MM	0.10	AR
Switzerland	0.47	UK	0.30	CA	0.28	US	0.25	FR	0.24	NZ	0.23	MD
Thailand	0.70	AU	0.69	MM	0.49	ZA	0.36	TR	0.33	FR	0.24	AR
Tunisia	0.70	DZ	0.40	MX	0.36	FR	0.33	MA	0.17	EL	0.15	IT
Turkey	0.40	MX	0.39	AU	0.36	TH	0.32	MM	0.26	FR	0.23	ZA
Ukraine	0.86	MD	0.68	KZ	0.63	GE	0.48	RU	0.37	CL	0.36	BG
United Kingdom	0.53	US	0.47	CH	0.45	CA	0.34	AU	0.33	JP	0.31	NZ
United States	0.75	CL	0.72	AU	0.68	JP	0.66	CA	0.60	ZA	0.59	RU

Table 4 (continued): Each country's six most-similar winegrape countries^a in the world according to the Varietal Similarity Index, 2010

Uruguay	0.41	FR	0.36	BG	0.32	CL	0.31	JP	0.30	US	0.30	CN
Old World	0.74	ES	0.64	FR	0.46	BG	0.46	US	0.43	MX	0.43	IT
New World	0.87	US	0.87	CL	0.84	AU	0.72	ZA	0.70	CN	0.64	FR
World	0.72	FR	0.65	US	0.62	ES	0.62	AU	0.60	CL	0.55	BG

^a Country codes are Algeria(DZ), Argentina(AR), Armenia(AM), Australia(AU), Austria(AT), Brazil(BR), Bulgaria(BG), Canada(CA), Chile(CL), China(CN), Croatia(HR), Cyprus(CY), Czech Rep.(CZ), France(FR), Georgia(GE), Germany(DE), Greece(EL), Hungary(HU), Italy(IT), Japan(JP), Kazakhstan(KZ), Luxembourg(LU), Mexico(MX), Moldova(MD), Morocco(MA), Myanmar(MM), New Zealand(NZ), Peru(PE), Portugal(PT), Romania(RO), Russia(RU), Serbia(RS), Slovakia(SK), Slovenia(SI), South Africa(ZA), Spain(ES), Switzerland(CH), Thailand(TH), Tunisia(TN), Turkey(TR), Ukraine(UA), United Kingdom(UK), United States(US), and Uruguay(UY).

Niche Strategy and Resources: dilemmas and open questions, an exploratory study

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Abstract:

Niche strategy is often seen by wineries as the best solution to solve the problem arising from a highly competitive market and as a tool capable to ensure high margins. Thus niches can run the risk of getting overcrowded; some critical questions about the sustainability of the strategy and of the competitive advantage in the long run emerge. This paper is an exploratory research that underlines the role that resources have in shaping firm's niche strategy.

Purpose: The purpose of the paper is to investigate the linkages between the type of resources selected by wineries when defining their niche strategy and the sustainability of the competitive advantage.

Design/methodology/approach: Data have been collected through a web based survey sent to 6 wineries (from Italy and US). A qualitative analysis of responses has been carried.

Findings: The paper highlights the importance of combining a resource based perspective to the traditional approach to niche strategy definition. The results suggest directions for further researchers in order to try to fill emerging research gaps.

Key words: Niche; Strategy; Resource Based View; Sustainable Competitive Advantage.

1. INTRODUCTION

Niche strategy is often considered by wineries as the optimal solution for avoiding mass market competition and for finding a sheltered place where consumers are willing to pay a premium price. Nevertheless, background research suggests that niches can get overcrowded with dramatic consequences for the overall sustainability of competitive advantage. Thus, we recommend a general critical reflection upon niche strategy and a focus on those resources that represent the drivers for niche definition. This paper examines the problem of niche definition and the sustainability of competitive advantage by adopting a resource based perspective. After having implemented a configurational approach in research designing, we have interviewed 7 wineries through a web based survey and in depth interviews. This exploratory study aims to answering to the following research questions: what is the role of internal and external resources in niche strategy definition? How do resources contribute to the overall competitive advantage? What is the linkage between resources, the degree of sustainability of competitive advantage and strategy over the time?

2. BACKGROUND RESEARCH

There is an extensive debate on niche strategy among scholars: over the years many definitions of niche strategy have been provided by academicians and besides the discussion upon terms and words (terms like niche strategy, niche marketing, niche segment have been often used as synonyms) some insights emerge: first of all there is a deep linkage between niche and differentiation (Dalgic and Leeuw, 1994; Kotler, 1991); secondly, those who aim to play in a niche have to keep a customer focused approach (Kotler, 2003) and to be strategically focused in general (Miller, 1986) in order to distinguish themselves from mass competitors (Hezar et al., 2006). Nevertheless, in the wine business, niche strategy has, in our opinion, progressively become an overused expression: niches have been seen as a solution for avoiding big players competition or a way for marketing the distinctive features of a certain product. Wineries have seen in niches a sheltered place capable to ensure profits: how can a company compete in a business characterized by fixity of inputs and oversupply? The immediate answer is “by carving out a niche”.

Thus, background research suggests us that niches are a complex matter: first of all because of the dynamics that regulate niche width and sustainability and secondly because of the approach that companies have adopted when defining their niche strategy.

Niches are capable to attract entrepreneurs (Delacroix and Solt, 1987) and research has shown how the degree of market concentration influences the birth of niches (Noy, 2010). Scholars have also underlined how the approach adopted by firms in defining their niche strategy can impact the achievement of a sustainable and effective competitive advantage in the long run (Dalgic, 2006; Delacroix and Solt, 1987). Some preliminary considerations on niche strategy can be made: niches could get overcrowded, with threats for the competitive advantage; secondly, a thoughtful approach to niche strategy is needed both on the academic side and on the practitioners' one.

In this paper we have adopted a resource based approach when investigating niche strategies in the wine business. There are several reasons that motivate our choice. First of all we have been supported by the importance given by academicians to the role that resources have in strategy making not only by Resource Based theorists (see among the others Barney, 2001a; 2001b; Ray et al., 2004) but also by eminent scholars that have focused on strategy models in general (see for instance the work by Hamel and Prahalad, 1989 where the authors examine the traditional view of strategy and the importance of strategic intent in shaping the planned strategy). A Resource based approach is on our opinion, capable to preserve the inner

dynamism of strategy that leads managers to adapt firms to environment (Chakravarthy, 1986). Dehning and Stratopoulos (2003) clearly explain the linkages between performance and resource features with a particular attention to define those elements that provide a sustainable competitive advantage by limiting resource imitation.

Thus, the relationship between resources and niche strategy definition has been explored by several scholars. Besides the importance given to resource deployment when defining niche width (see among the others, Dobrev et al., 2001), background research has underlined the role of distinctive competences and resources in niche strategy and marketing (Dalgic, 2006; Kotler, 2003) or the importance that strategic capabilities have in the formulation of a niche marketing strategy (Toften and Hammervol, 2010).

For what concerns the importance given to niches in the wine business, much of the literature has focused on niche formation: the work by Swaminathan (1995) explains the mechanisms behind niche birth in the wine industry and it highlights the critical role that changes in consumers and consumption have in niche creation.

Still a few has been done to explore the issue of sustainability of niche strategy in the wine business and the work by Santini (2014) has provided us the basis for carrying out this exploratory study.

3. RESEARCH QUESTIONS AND SURVEY DESIGNING

The paper aims to answering to the following research questions: what is the role of internal and external resources on niche strategy definition? How do resources contribute to the overall competitive advantage? What is the linkage between resources and the degree of sustainability of competitive advantage and strategy over the time?

The paper aims to achieve the following objectives:

1. Providing a description of the major relationships between niche strategy definition and resource choice;
2. Outlining the role that structural variables of the firm can have in defining a niche strategy;
3. Classifying niche strategy players into different profiles.

Researchers' work has been shaped in order to maintain a configurational approach to the research problem (Miller, 1986; Ward et al., 1996; Ward and Duray, 2000).

After having been tested, a web based version of the survey has been sent to some wineries in Italy and in the US. The work by Parrish et al. (2006) has provided us some useful inputs for formulating questions regarding how companies define their niche and about the perceived importance of niche strategy for firm's survival.

The model developed by Santini (2014) has been used as a benchmark for grouping profiles and for selecting variables. According to the model selected, companies can be classified as: Selfie niche players, if they give a high emphasis to internal resources and a lower to the external ones; Pull companies, if they give the highest importance to external resources; Combi firms if they combine internal and external resources; and Sleeping niche players if they don't give importance to resources when shaping their niche strategy.

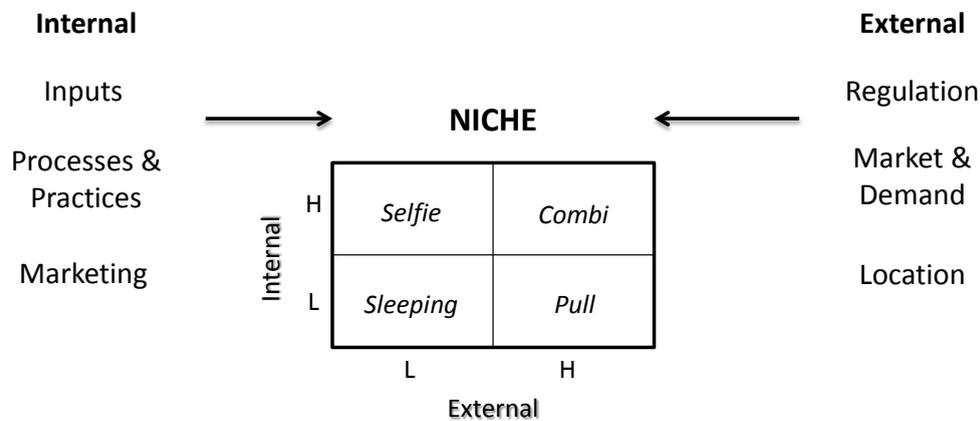
In our view niche strategy is the result of a strategic orientation that is based on a mix of internal and external resources; resources are exploited by the firm with the aim of achieving a focused and differentiated positioning.

Thus, niche players can assume four main different profiles, as it is represented in Figure 1.

We have previously remarked the importance of adopting a sustainable perspective for what concerns niche strategy. The work by Dehning and Stratopoulos (2003) has provided some useful insights for understanding the relationships between resources, strategy making and the creation of a durable and sustainable competitive advantage.

In particular, background research suggests that causal ambiguity, lead-time, path dependency, the role of history, social complex links and time compression diseconomies have a primary role in defining a sustainable competitive advantage, since they limit resource imitation.

Figure 1, Wine nicher profiles (from Santini, 2014)



H = high presence; L = low presence

The academic literature in this field is endless: empirical researches have been carried out from various perspectives with the result of providing many scales that can be employed for empirical investigations. The work by King (2007) offers a detailed overview of the many scales employed over the years by scholars for assessing the relationships between causal ambiguity and competitive advantage; starting from this work two general considerations can be made: first of all there is a growing academic interest towards this issue; secondly, scholars may have difficulties in finding a general model that can be widely implemented.

Given the difficulties above mentioned, we have decided to develop some items measured by Likert scales by starting from the insights emerging from Dehning and Stratopolous (2003); we have used a deductive scale development approach, as indicated by Hinkin (1998).

A further aspect to investigate is how to measure firm's competitive advantage. Background research suggests to consider ROA (see among the others, Dehning and Stratopolous, 2003; Newbert, 2008); a similar approach could sound as a limitation (Ray et al., 2004), since many firms can possess competitive advantages that are not reflected by business performance. For this reason we have decided to include some questions that can be used to describe how companies position themselves in terms of competitiveness with respect to competitors. Useful output have emerged from the work by Gilinsky et al. (2008) and Newbert (2008).

Based on the insights emerging from the literature we can formulate the following assumptions:

Ass 1: Niche strategy is shaped by the role given by firms to resources when planning their strategy.

Ass 2: the overall sustainability of the niche strategy depends on the set of resources that wineries have chosen.

Ass3: the existence of some inhibitors to resource imitation can ensure sustainability to the overall competitive advantage.

A list of the variables examined is available in Table 1.

Table 1, Variables

Variable	Source
Niche strategy definition	Parrish et al., 2006
Importance given to internal resources for niche definition	our elab. On Santini, 2014
Importance given to external resources for niche definition	our elab. On Santini, 2014
Casual Ambiguity	Our elab on Dehning and Stratopoulos (2003)
Lead-time	Our elab on Dehning and Stratopoulos (2003)
Path Dependency	Our elab on Dehning and Stratopoulos (2003)
Role of History	Our elab on Dehning and Stratopoulos (2003)
Socially complex links	Our elab on Dehning and Stratopoulos (2003)
Time compression diseconomies	Our elab on Dehning and Stratopoulos (2003)
Strategic orientation	Gilinsky et al., 2008
Competitive positioning	Gilinsky et al., 2008
Price Segment	Cholette & Castaldi, 2010
Market Segment Positioning	Cholette & Castaldi, 2010; Gilinsky et al., 2008
Competitive Advantage	Our elab on Dehning and Stratopoulos (2003)

4. DATA ANALYSIS

We have interviewed six companies (A,B,C,D,E,F) that differ by size (measured by bottles produced), location and by the type of production: they all produce bottled wines, and compete in different price segments, as it is shown by Table 2.

We have asked wineries to define what niche strategy is in their views and to highlight how they have pursued a niche strategy; then they have been asked if niche strategy is functional to a reduction of competitive pressure. What emerges is that there is a deep difference between the concept of niche that wineries have: some companies conceive niche strategy as a tool for reaching new geographic markets that should be combined with other strategies pursued for different products (B); others, instead, find in niche strategy the way to reach consumers who are willing to pay for a premium price and who can appreciate some features of the wine (A); for others niche is a way of excluding those clients who seek for discounted products, whilst

for other companies further aspects emerge: the need to pursue a differentiation (D) or a planned approach for targeting a specific consumer (F).

Table 3 (that is available in the Appendix) provides a description of how companies define strategy and the role given by wineries to resources when crafting their niche.

Table 2, The profile of the wineries interviewed

Company	Location	Average Year Production (bottles)	Employees		Year of foundation	Price Segments (€)									
			Full time	Part time		Icon (over 75 €)	Super Luxury (37€- 75€)	Luxury (€19 - 37 €)	Ultra Premium (11€- 19€)	Mid-Premium (€7.5 - 11€)	Popular Premium (€ - €7.5)	Fighting Varietals (€2.5 - €5)	Extreme Value (below 2,5 €)	Jug Wine 3 o 5 lt (< 2,5 €)	
A	Tuscany, Italy	220000	20		1982	*	*	*	*	*					
B	Central Italy	800000	20	20	1971					*	*	*	*	*	
C	Tuscany, Italy	20000	2	5	1911				*	*	*	*	*	*	
D	Tuscany, Italy	40000		4	1850	*			*						
E	Piedmont, Italy	7200	1	1	2006			*	*						
F	California, USA	1200000	30	30	1964		*	*	*						

The second step was to analyze on which basis companies shape their niche strategy and to define the niche strategy profile: after having outlined what the external and internal resources are, we have asked companies to rank the relevance of each type of resource in the strategy definition process. We have investigated the role played by resources in the development of a sustainable competitive advantage according to the insights emerging from the literature; we have, then focused on the approach that companies have when planning strategy (see Table 4) and the type of competitive positioning in relation to competitors (see Figure 3).

Results are shown in Figure 2, Figure 3, and Table 4.

Company A combines internal and external resources in niche strategy definition. The company thinks to have outstanding performances if compared to its relative competitors and considers the variables “lead time” and “role of history” as extremely important for maintaining the competitive advantage: for this company the time that goes by between the launch of an initiative and competitors’ reaction is relevant for preserving the sustainability of the overall competitive advantage by limiting resources imitation. Furthermore, the specific set of conditions - that ensure firm’s access to resources at a lower cost than competitors - enables A to maintain a superior competitive advantage and to preserve resources.

Also company B is a *selfie* niche company. Company B pursues a niche strategy by maintaining small volumes and high prices with the aim of reinforcing customer’s loyalty. B combines different strategies; the company competes in several market segments and sees in

niche market strategy an opportunity for reaching new markets or for reinforcing its sales network.

Company C has a profile that is in the middle between *combi* and *pull*: the company, when asked to define its relative positioning with respect to competitors, says that it competes better than competitors for what concerns product quality, price and distribution, but under many other aspects it says to be at the same level, or even lower than its competitors. Company C among the wineries observed is the one who has the lowest scores for what concerns the importance given to mechanisms that can ensure a sustainable competitive advantage by preserving strategic resources; C thinks that competitors would hardly choose to imitate company's set of resources, since imitation is time consuming, although resources are easy or inexpensive to imitate.

Companies B and D who are proactively involved in the local association and in cultivating grapes that have a strong linkage with the territory give a high relevance to the role that historical conditions can have in developing resources at a lower cost.

Company D can be defined as a *selfie* winery and it is the one with the highest "internal orientation" and the lowest "external orientation": the company gives less importance to external resources and the highest relevance to internal ones when shaping its niche strategy. The basic idea pursued by the company is to remain as much loyal as possible to the inputs and to respect the land and the planted vines. The company doesn't think that certification could have a positive role in achieving superior performances and the winemaker, who is also the owner, has spent many efforts for growing typical grape varieties that used to be cultivated in the area. D builds its relative competitive advantage on providing an excellent customer service, new products and services and on the productive philosophy - as it also emerges from the information provided in Table 3 - that it is truly inspired by sustainability.

Company E is in the middle between *sleeping* and *pull*. This company seeks in "time compression diseconomies" the main tool for maintaining a sustainable competitive advantage: winery E although it knows that its key resources and competences can easily be imitated, thinks that the time needed by competitors for gaining them would inhibit the imitation process.

Winery F defines its niche strategy mainly on external resources and can be classified as a *pull* company. The company seeks excellence towards a sustainable orientation. In general F sees itself as extremely competitive if compared to relative competitors, as it emerges from Figure 3, but the importance given to internal resources in strategy definition is limited with respect to other companies.

Another interesting aspect concerns the similarities between some companies: for example B and D who differ for sizes, productive orientation and price segment positioning show similar approaches to resource definition when carving out a niche.

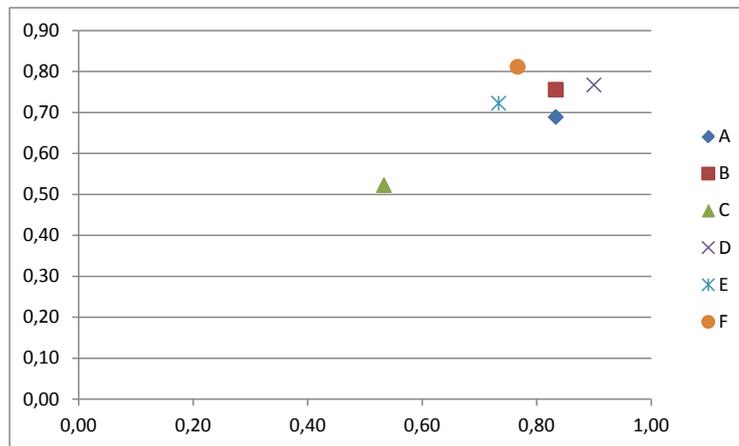
Figure 2, Niche profiles



Table 3, Resource and sustainable competitive advantage and type of approach in planning strategy

Type of approach to strategy planning prevailing	Resource sustainability (importance rank from 1 to 5)						Time compression diseconomies
	Casual Ambiguity	Lead- time	Path Depende ncy	Role of History	Socially complex links		
A Emerging	4	5	4	5	4	3	
B Emerging	2	3	5	4	4	4	
C Emerging	2	2	4	2	2	4	
D Emerging	3	5	5	5	5	4	
E Planned	3	4	4	3	4	4	
F Planned	3	4	4	3	4	5	

Figure 3, Importance given to mechanisms capable to ensure the overall sustainability of competitive advantage (X) and competitive positioning (Y)



5. CONCLUSIONS

The data collected have helped us to highlight the relationship between resources, niche strategy and the capability that companies have to maintain a sustainable competitive advantage. Thus, a clear limitation of the paper stands in the lack of data for measuring competitive advantage. Although we have information about the way companies position themselves in relation to competitors, we could not collect data to be employed for measuring competitive advantage: in fact most of the literature in the field focuses on financial data and more specifically on indexes such as the ROA. In general, smaller companies can't provide accurate financial information. When planning the survey we have decided to employ the same scales and indexes emerging from background research although we knew about the limitations of the approach and about the ongoing academic debate over the employment of proxy variables for measuring competitive advantage. Hopefully, in the next future research should focus on developing the theoretical framework for combining the firm's perception of the relative competitive positioning to competitive advantage definition by adopting a resource based perspective.

Nevertheless, from this exploratory study it emerges that the issue of niche market strategy could not be limited to a problem of size or segmentation; we have collected data with a very high variability, although the sample under investigation is limited, and it is surprising seeing that results were simply unpredictable: there are no similarities between niche profiles and the relative importance given to mechanisms that ensure a sustainable competitive advantage; there are differences in the approach to niche market strategy even among similar companies; it is also difficult to predict a sort of alignment between resources exploitation in crafting a niche strategy and how do firms position themselves with respect to competitors. Neither there is no relationship between size of the company and the vision that companies have about niche market strategy: although we have only two big companies out of the six selected, they don't approach to niche strategy in the same way and consequently they don't give the same emphasis to internal or external resources.

Thus, we can conclude that further researches are needed in order to collect enough data for performing a cluster analysis and for highlighting similarities when defining the set of resources for niche strategy definition and for understanding the reasons behind the high variability in firm's behavior. From the study it emerges that the importance that companies give to the inhibitors of imitation doesn't reflect the importance they give to resources in niche strategy definition. Thus, the problem about the conservation of strategic resources is still open: companies are not used to think about niche strategy in the long run by adopting a resource based perspective; in our opinion, companies are not aware of the strategic implications that resources might have and this could explain why resource exploitation is not

aligned to an approach of preservation and to firm's positioning. Niche strategy is often seen as the emerging response to a situation, or simply the only choice that companies have, but a further step is required to companies, that consists of performing a critical overview of the set of resources used to shape their niche strategy and to adopt a long term perspective. Further researches should be carried also in order to educate firms to critically rethink about their strategy formulation process. Hopefully further researches should be carried in different businesses to evaluate how the characteristics of the wine business influence companies approach to niche strategy definition. This exploratory research doesn't have the merit to solve the dilemmas about niches and resource exploitation, but has the purpose to introduce scholars to a wider academic debate about the complexity of niche strategy definition and to provide a new perspective of analysis both for academicians and practitioners.

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APPENDIX

Table 4, Niche strategy, definition, role, importance for the companies interviewed

Company	The definition of niche strategy	Company's niche strategy (how and why)	Effects of niche strategy on the company	How does the company find a niche market and/or product	Factor of success in a niche market strategy	Niche strategy as help with pressure from competition
A	To offering products that are different from the mass of products to a client who can appreciate their value	We try to reach wine lovers that are willing to pay for a wine that is of superior quality and a symbol of tradition	We achieve success and sales target	We think about those who could appreciate our wine	Knowing the customers and communicating what the product can offer	The pressure of competition depends on the degree of uniqueness of the company if compared to the competitors
B	A business Project for penetrating one or more small markets (smaller compared to the dimension of the company)	We unintentionally adopt a niche strategy: it happens that we have to position ourselves on niche markets because we need to maintain a network, or because we don't have other chances, or even because we want to start a new sales relationship	Small numbers are combined to high prices. This guarantee profitability, but on the other hand new risks emerge because of some variable issues that are linked to highly priced products: sensory quality must be further guaranteed, together with product image	Prices above the average, small productions, high loyalty	High quality, perfect packaging, adopting a politically correct approach in establishing relationships with clients, high media visibility	It helps, but the effect is limited.
C	Defining targets of clients for the products that we want to sell, then try to market the wine through tastings. The policy is to exclude those clients who systematically ask for lower prices	I always seek for niches, because I don't have high volumes to sell through retailers and distributors. I try to use my direct sales channels, by employing also tastings and dinners	We try to enhance customer loyalty: we seek to have loyal customer who link the product to a company and to a place who stimulate positive reminds	I try to understand what is the profile of the customer and what he could buy	I think that the quality of the products come first together with product identity that should be willing to satisfy the expectations given by the price	It can happen that if you find your market segment you can be safe from pressure for lower prices.

D	A way to be founded among the myriad of wines in the World	I don't know: I try to make wines that don't already exist, trying to find an equilibrium between the territory, the environment and myself, and I try to consider the vines and varieties that I have planted over the years. I adopt this productive philosophy because this is what I would like to drink: a product with agricultural roots rather than based on technology	I don't know: I sell all the wine at the price I set and I don't find clients who ask me for price discounts	It happens that "the market" come to my door, sometimes, I establish contacts during wine fairs, other times it happens thanks to word of mouth	I think to be coherent (what you do and what you say); a deep respect for the land and for those who drink my wine.	Competition is part of life. If we all live under a doping effect it would be difficult to find a real champion. The champion is the one who deserve the respect of the other competitors.
E	Niche strategy is clearly defined approach to marketing or other strategic function.	We play in a niche by producing a highly artisanal product (only 2 wines) of the utmost handcraft work. Label design, visits for wine tourists, blog and social media marketing all communicate a highly personalized message to target market. Our winery targets those individuals who are looking for quality wine while at the same time offering broader range of pricing to expand the financial aspect of our key demographics. Although, company's main focus is on sustainability which attracts those with a passion for the environment. These practices of solar energy, drip irrigation, with the natural use of birds, dogs, and bees, are adequately promoted to reach out to a wide audience.	A extremely positive word of mouth and returning customers. Many clients who fall in love with my wine bring new enthusiast along.	By speaking about wine and vineyard work in a new way. We've realized a dream many wine enthusiast have as in purchasing a small vineyard and learning to cultivate wine on our own, for real and this draws to likeminded client.	absolute sustainability and transparency of all aspects of the work. being very honest and straight forward. Not trying to please everyone but rather believe that your story is told by the product.	Absolutely. Having a clearly defined own story supports the entire market and success of competitors products as well. It will turn the pressure from competition into a power of co-operation.
F	A business plan aimed to appeal to a specific audience.	Our winery targets those individuals who are looking for quality wine while at the same time offering broader range of pricing to expand the financial aspect of our key demographics. Although, company's main focus is on sustainability which attracts those with a passion for the environment. These practices of solar energy, drip irrigation, with the natural use of birds, dogs, and bees, are adequately promoted to reach out to a wide audience.	This niche strategy has positively expressed our concern for the environment to the prevailing wine consumers that share in the same goal.	It isn't so much that the company searched for a unique niche to appeal to, it was more about doing what was the right thing to do; in doing so this created an attractive allure to consumers of fine wine who care for their community.	It is vital to be genuine in your mission to gain the trust of your consumers. A niche market strategy must now the audience that is to be attracted and find the missing needs of that group in order to be successful.	With time and effort, competition is able to recreate a similar niche to obtain consumers, but the relationship with the customer is something that cannot be imitated.

Putting a Face to the Brand: How Wishful Seeing Enhances Brand Liking

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◦*Purpose: This paper investigates how brands - through face visuals - can fill a void for consumers experiencing a lack of social connection (operationalized in terms of loneliness and tendency to anthropomorphize).*

◦*Design/methodology/approach: Employing fictitious brand names and mock advertisements, three experiments (including an eye tracking study) test how employing human faces rather than ambiguous figures as visuals influences processing fluency and brand liking.*

◦*Findings: Study 1 shows that seeing faces relates to greater brand liking with processing fluency mediating, and individual loneliness and tendency to anthropomorphize moderating the effect. Study 2 replicates findings with other-race faces indicating that processing fluency but not ethnic self-referencing underlies the effect. Study 3 complements the psychometric measures of Studies 1 and 2 with eye tracking data to demonstrate that fluency correlates with distinct patterns of attention.*

◦*Practical implications: Given the widespread use of ambiguous visuals on wine packages and other brand communications, wine marketers may be interested in benefitting from the findings that the mere process of easily and effortlessly resolving visual ambiguity endows brands with greater liking.*

Keywords: package design, typicality, fluency, brand evaluation, memory

1. INTRODUCTION

Displaying a visual in combination with the brand name and, possibly, a claim is common practice not only in marketing wine. To attract viewer attention (Pieters and Wedel 2004), support positioning (Orth and Malkewitz 2012), and ultimately build strong brands (Park et al. 2010), wine packages, advertisements, and other means of brand communication bear a large variety of visuals ranging from the realistic to the abstract, and depicting objects as diverse as to include wholes or parts of plants, humans, animals, landscapes, buildings, or even obscure and hard-to name entities. Although a deep relationship with a brand hinges on extended interactions (Batra, Ahuvia, and Bagozzi 2012), initial liking must begin in the early stages of brand encounters, and this is where visuals play a key role.

Accompanying brand names with visuals of humans extends previous research that has regarded brands as persons (Delbaere, McQuarrie, and Phillips 2011), assigned human characteristics (Geuens, Weijters, and DeWulf 2009), or treated brands like partners in personal relationships (Fournier and Alvarez 2012). As such, extant studies view brands as resources for the construction of identity (Elliott and Wattanasuwan 1998) and the endowment of consumers with specific human attributes (Escalas and Bettman 2005). Different than these studies, our work sets out to demonstrate that the mere process of seeing human in a visual (rather than the resulting attributions) can increase viewer liking for the brand. We expect this effect because dealing with ambiguity is the hallmark of visual perception and the human visual system routinely resolves ambiguity, especially in faces (Wallis 2013), for the organism's effective adaptation to its environment (Long and Toppino 2004). Our work thus unites fluency research with the evolutionary tendency to categorize visual stimuli as human faces (Öhman and Mineka 2001) to show that "seeing" a face increases brand liking because processing is more fluent than for ambiguous visuals.

Development of consumer liking for a brand via the mechanism discussed above suggests that two individual characteristics may play a role as moderators. Both an individual's loneliness and tendency to anthropomorphize are rooted in the basic human need for social connection. People who feel lonely and lack social connectivity try to compensate by extracting a sense of human with any agent they encounter (Epley et al. 2008). Relating to an individual's greater need-to-belong, loneliness and the tendency to anthropomorphize should enhance the individual propensity to "see faces" and like the brand displayed alongside.

2. LITERATURE AND HYPOTHESES

1.1. Seeing Faces

A key perceptual experience is that of categorizing ambiguous visual information (Balcetis and Dunning 2006). Ambiguous visuals are those that can be interpreted in different ways but where people see only one interpretation at any given time (Long and Toppino 2004). Common examples include Rubin's (1958) vase/faces, Boring's (1930) wife/mother-in-law, Fisher's (1967) man/girl, and Bugelski and Alampay's (1961) rat/man. Humans possess a remarkable perceptual bias when seeing ambiguous visuals which is perhaps most apparent in the case of faces. Because correct classification of visual input as "face" is so central to the survival of the species (Wallis 2013), converging evidence from developmental, neuropsychological, behavioral, and physiological sources indicates that faces are processed differently than objects (Tsao and Livingstone 2008). In other words, human perception is biased in that categorizing visual input as a human face takes precedence over categorizing it as an object (Todorov, Baron, and Oosterhof 2008). It is only after consumers identify a brand

visual as a face that they can form impressions which then transfer to brands (Gorn, Jiang, and Johar 2008). Thus, categorizing a brand visual (i.e., as a face) assumes a key role in brand communication.

1.2. Processing Fluency

Processing fluency, the subjective experience of ease and speed with which an incoming stimulus is handled (Reber, Schwarz, and Winkielman 2004), is an important source of information (Schwarz 2004). As such, the fluency signal is hedonically marked: high fluency elicits a positive affective reaction (Reber, Schwarz, and Winkielman 2004) because fluent stimuli (in our evolutionary past) signaled safety, an inherently preferred state (Winkielman and Cacioppo 2001). Consistent with the affect-as-information model (Schwarz and Clore 1983), positive affect, instantly induced by fluent processing of a stimulus, mediates the impact on attractiveness, hereby generating greater liking (Reber, Schwarz, and Winkielman 2004). This finding has been obtained with abstract stimuli (Cho and Schwarz 2010; Janiszewski and Meyvis 2001), but also with more realistic drawings (Cox and Cox 2002), and images of wine packages (Orth and Malkewitz 2012).

Integrating the superiority of the human visual system in “seeing” faces with the fluency hypothesis implies that displaying a brand with a face should relate to more fluent processing and consequently greater liking of the brand than accompanying the brand name with an ambiguous visual that requires greater processing effort. Taken together, theory and empirics advocate that faces (vs. ambiguous visuals) relate to higher processing fluency and subsequently to greater brand liking:

H1: Viewer liking of a brand will be higher when the visual is perceived as a face rather than an ambiguous visual.

H2: The positive effect of seeing a face on brand liking will be mediated by fluency.

1.3. Lack of Social Connection as a Motivational Driver

What people see is not an exact replica of what is in the world since perception is selective (Drew, Vö, and Wolfe 2013) and often biased (Balcetis and Dunning 2010). Among the key motivational drivers of visual perception are individual needs and goals (Dunning and Balcetis 2013). For example, desired locations appear closer, terrain to be negotiated appears easier to traverse when motivation is strong, and soccer goals appear tighter to the player tasked with executing the penalty kick (Dunning and Balcetis 2013).

Social psychologists have suggested that perhaps the only critical motivational driver of human behavior is other people (Diener and Seligman 2002). Experiencing a lack of connection with other people is not only unpleasant and uncomfortable (Baumeister and Leary 1995), but also unhealthy (Cacioppo et al. 2002). An unsatisfied need for social connection makes people feel lonely (Donthu and Gilliland 2002) and they try to compensate for the perceived lack of social connection (Simenauer and Carroll 1982). Specifically, lack of social connection can change the way people view inanimate objects, such as technological devices, personal keepsakes, and pets, a tendency termed anthropomorphism (Epley et al. 2008). Given that people, chronically or dispositionally higher in their tendency to anthropomorphize, are more likely to “see human,” they should process faces more easily and thus with greater fluency than people low in anthropomorphism tendency:

H3a: An individual’s tendency to anthropomorphize will enhance the positive effect of seeing

face on fluency.

Loneliness describes a state when a discrepancy exists between the interpersonal relationships one wishes to have and those one perceives they currently have (Perlman and Peplau 1981). Because humans have a strong desire for social connection and a basic need-to-belong function, loneliness can trigger behavioral adjustment and cognitive responses (Rubinstein, Shaver, and Peplau 1979). Effects of loneliness also extend to visual perception (Gardner et al. 2005). Paralleling the tendency to anthropomorphize in its consequences, loneliness should increase the processing fluency of faces as brand visuals because individuals who feel lonelier exhibit a stronger propensity to see a face in a visual stimulus than less lonely individuals do:

H3b: An individual's state of loneliness will enhance the positive effect of seeing a face on fluency.

3. EMPIRICAL STUDIES

In line with research on advertising (McQuarrie and Phillips 2008), fluency (Reber, Schwarz, and Winkielman 2004), and visual processing of wine packages (Orth and Malkewitz 2012), we used fictitious brand names combined with a visual (face or ambiguous) and a slogan to represent mock advertisements for a new brand. Three pretests (N=90, N=27 and N=33) yielded two visuals, one seen as ambiguous and another seen as a face, two brand names (Fecci and Abington) low on familiarity, along with the slogan "I like it" for both names.

2.1. Experiment 1

One hundred students (all Caucasian, 23.1 years of mean age, 66% females) participated in a 2 (face vs. ambiguous brand visual) x 2 (brand name: Fecci vs. Abington) between-subjects experimental design. Randomly assigned to one of the four conditions study participants completed questions about the brand, the drawing, and about themselves. Measures included established item batteries including the three-item fluency scale (Landwehr, McGill, and Herrmann 2011; $\alpha=.89$; $M=4.25$, $SD=1.62$), three-item scales for brand liking (Fabrigar and Petty 1999; $\alpha=.90$, $M=4.33$, $SD=1.23$) and purchase intention (MacKenzie, Lutz, and Belch 1986; $\alpha=.90$, $M=4.52$, $SD=1.30$), and the brief versions of the IDAQ (Waytz, Cacioppo, and Epley 2010; non-human animals: $\alpha=.83$, $M=3.17$, $SD=1.18$, $Range=6.0$; natural entities: $\alpha=.80$, $M=4.42$, $SD=1.38$, $Range=6.0$), and the loneliness scale (Russell 1996; $\alpha=.91$, $M=4.90$, $SD=1.14$, $Range=5.0$). We also included a number of covariates to guard against alternative hypotheses. Specifically, we measured attractiveness of the visual (Hirschman 1986: attractive, beautiful, appealing, $\alpha=.91$), and assessed four emotions of the PANAS scale (Watson, Clark, and Tellegen 1988).

Analysis of variance (ANOVA) results indicated a significant effect of the visual on brand liking ($F(1,99)=3.94$, $p=.049$) with the face relating to greater liking than the ambiguous visual ($M=4.58$ vs. $M=4.09$). When the brand name was included as a covariate, results of a two-factorial ANOVA indicated a significant main effect of the visual ($F=3.95$, $p=.049$), a non-significant main effect of brand name ($F=.68$, $p=.411$), and a non-significant visual x brand name interaction effect ($F=.08$, $p=.785$). These results support H1. The influence of liking on purchase intention was strong and positive ($B=.79$, $t=12.82$, $p=.001$), hence underscoring the relevance of our focal dependent construct.

Testing simple mediation (Preacher and Hayes 2004) established that seeing a face was positively associated with fluency, as indicated by a significant unstandardized regression

coefficient ($B=2.06$, $t=8.21$, $p=.001$). Also, the positive relationship between fluency and liking, controlling for the visual, was supported ($B=.36$, $t=3.94$, $p=.002$). Finally, seeing a face was found to have an indirect effect on liking; this indirect effect was positive ($B=.48$, $t=1.99$, $p=.048$), as hypothesized. The formal two-tailed significance test demonstrated that the indirect effect was significant (Sobel $z=3.53$, $p=.001$). Bootstrap results confirmed the Sobel test results, with a bootstrapped 95% CI around the indirect effect not containing zero ($LL=.33$, $UL=1.15$). Thus, Hypothesis 2 received support.

To test for moderation, we conducted stepwise regression analyses (Frazier, Tix, and Barron 2004). Results indicate that the influence of visual x anthropomorphism tendency interaction on fluency is significant ($\beta=.15$, $p<.05$) as is the visual x loneliness interaction effect ($\beta=.23$, $p<.05$). Together, the step 2 interaction effects explain an additional eleven percent of variance beyond a significant main effect of seeing a face and non-significant main effects of anthropomorphism and loneliness in step 1. Thus, Hypotheses 3a and 3b were supported.

Additional findings indicate that face attractiveness and emotional contagion effects can be ruled out as potential alternative explanations. The findings provide initial evidence for the influence of seeing a face in a brand visual on liking, indicating that presenting brand names in conjunction with a human face rather than an ambiguous visual increases liking. Further, this pattern of results trace back to processing fluency as a mediator of the visual – liking relationship. Seeing a face in a brand visual appears to enhance consumer liking of the brand, especially when viewers tend to anthropomorphize, or when they feel lonely.

2.2. Experiment 2

The use of Caucasian faces and Caucasian viewers in Study 1 could raise questions about the generalizability of findings regarding the social connectivity capacity of brands. To provide further evidence for our phenomenon across ethnic groups, we re-used the 2 (face vs. ambiguous visual) x 2 (Fecci vs. Abington brand) between-subjects experimental design employed in Study 1. The key difference was our using Asian rather than Caucasian faces. Replicating the approach used in the original Pilot study, one of the coauthors created a set of six drawings designed to represent human faces of Asian ethnicity that were then evaluated by thirty Caucasian respondents. The face selected for the main study was unambiguously seen as Asian, but was ambiguous regarding gender, and did not reflect any extreme emotion. The ambiguous visual was the same as the one employed in Study 1. 99 students (all Caucasian, 24.5 years of mean age, 63% females) viewed one randomly selected ad, and completed questions about the brand, the visual, and themselves. Measures were identical to study 1.

ANOVA results indicated a significant effect of the visual on brand liking ($F(1,98)=8.26$, $p=.005$) with the face relating to greater liking than the ambiguous visual ($M=4.57$ vs. $M=3.83$). When the brand name was included as a covariate, results of a two-factorial ANOVA indicated a significant main effect of seeing a face ($F=8.35$, $p=.005$), a non-significant main effect of brand name ($F=.38$, $p=.537$), and a non-significant visual x brand name interaction effect ($F=2.73$, $p=.102$). These results provide additional support for H1. The influence of liking on purchase intention was again strong and positive ($B=.89$, $t=14.90$, $p=.001$).

Repeating the mediation test yielded a positive effect of seeing a face on fluency ($B=1.63$, $t=6.31$, $p=.001$), a positive relationship between fluency and liking, when controlling for the visual ($B=.46$, $t=5.07$, $p=.001$), and a positive indirect effect of seeing a face on liking ($B=.75$, $t=2.87$, $p=.005$). The indirect effect was significant (Sobel $z=3.92$, $p=.001$) with a bootstrapped 95% CI around the indirect effect not containing zero ($LL=.37$, $UL=1.12$). Thus, Hypothesis 2

received support.

Re-employing stepwise regression analysis indicates that the influence of the cross-product term between seeing a face and anthropomorphism tendency on fluency is significant ($\beta=.15$, $p<.05$), explaining an additional four percent of variance above and beyond a significant main effect of seeing a face and non-significant main effects of moderators in step 1. Thus, Hypothesis 3a and the expectation that the positive effect of seeing a face on fluency increased with individuals' tendency to anthropomorphize was supported. Further results of the analyses indicate that the influence of the visual x loneliness interaction term was not significant ($p>.05$). This finding stands in contrast to Study 1 and does not support Hypotheses 3b. Attractiveness and emotional contagion could be ruled out again as alternative explanations.

2.3. Experiment 3

Having demonstrated (through Studies 1 and 2) the positive influence of “seeing faces” on brand liking, the main goal of Study 3 was to explore what drives these effects through eye tracking. To test this proposition we re-employed the 2 (Caucasian face vs. ambiguous visual) x 2 (Fecci vs. Abington brand) between-subjects experimental design. One hundred and sixty students (all Caucasian), each viewed the advertisement displayed on a computer screen while a camera tracked their eye movement. After conclusion of the experiment they received a print-out of the advertisement and completed a paper-and-pencil survey containing questions about the brand, the drawing, and themselves.

We used two indicators of visual attention (Pieters 2008): AOI (area of interest) fixation frequency and AOI fixation duration. Fixation frequency is the total number of gazes a consumer spent on a specific AOI. It captures how well an area can retain attention. Fixation duration measures the time spent on each of the AOIs. Psychometric measures included the same ones as in Studies 1 and 2.

ANOVA results indicated a significant effect of the visual on brand liking ($F(1,119)=8.28$, $p=.004$) with the face relating to greater liking than the ambiguous visual ($M=4.33$ vs. $M=3.90$). When the brand name was included as a covariate, results of a two-factorial ANOVA indicated a significant main effect of the visual ($F=8.51$, $p=.004$), a non-significant main effect of brand name ($F=3.36$, $p=.069$), and a non-significant visual x brand name interaction effect ($F=.77$, $p=.383$). These results provide additional support for H1. As with previous two studies, the influence of brand liking on purchase intention was strong and positive ($B=.68$, $t=9.52$, $p=.001$), further underscoring the relevance of liking.

To explore the mechanism underlying our findings, we examined effects of the visual on the attention given to specific ad elements. Analyses of variance revealed a significant effect of the brand visual on the frequency ($F(1,118)=4.29$, $p=.041$) and duration of the fixation ($F(1,118)=9.23$, $p=.003$) with ambiguous visuals receiving both more ($M=12.98$ vs. $M=10.77$) and longer ($M=3.30$ sec vs. $M=2.43$ sec) glances than the face. The effect of the visual on attention given to the claim was also significant with greater fixation frequency ($F(1,118)=3.88$, $p=.047$; $M=1.44$ vs. $M=2.13$) and longer fixation duration ($F(1,118)=3.91$, $p=.049$; $M=0.28$ sec vs. $M=0.43$ sec) given to the claim when viewers saw a face rather than an ambiguous visual. The effects of visual on attention to the brand name were non-significant ($p>.160$).

Computing a measure for relative attention given to a specific AOI (as the percentage of total ad fixation duration given to either the brand name, the claim, or the visual) permitted further detailing attentional effects of seeing a face. ANOVA indicated a significant effect of visual on attention to the claim ($F(1,117)=6.34$, $p=.012$) with more attention under conditions of seeing a

face rather than ambiguous visual ($M=5.68$ vs. $M=3.98$). In addition, the effect of visual on attention given to the visual was significant ($F(1,117)=8.50$, $p=.004$) with more attention given to the ambiguous visual rather than the face ($M=46.27$ vs. $M=33.70$). The visual's effect on attention to the brand name was non-significant ($F(1,117)=1.08$, $p=.300$). However, the effect of relative attention given to the visual on fluency was significant and negative ($B=-.23$, $t=-2.60$, $p=.005$).

As with previous studies, processing fluency mediated the effect, thus supporting Hypothesis 2. Different than the two previous studies, the final analyses test a moderating influence on attention to the visual as an indicator of fluency. While a variation on our hypotheses, this approach seems defensible given the nature of the experiment (eye tracking) and the significant correlation between attention to the brand visual and fluency ($r=.37$, $p<.05$). Results indicate significant effects of the visual x anthropomorphism tendency ($\beta=-.16$, $p<.05$) and the visual x loneliness cross-product terms on fluency ($\beta=.16$, $p<.05$). These findings support Hypothesis 3a (the positive effect of seeing a face on fluency increases with the tendency to anthropomorphize) and Hypothesis 3b (the positive effect of seeing a face on fluency increases with loneliness).

The findings provide another set of evidence for the influence of a seeing a face on brand liking, the mediating role of processing fluency, and the moderating roles of individual differences. Analyzing eye tracking data suggests that the lower fluency of ambiguous visuals traces back to an attention consuming effect as individuals view them relatively more frequently and longer. In contrast, they need to dedicate less attention to a visual seen as a face, and exhibit higher fluency and greater brand liking.

4. DISCUSSION

The present work extends research on using visuals for communicating brands in at least three ways. First, traditional ways of promoting brands as resources for the construction of identity (Elliott and Wattanasuwan 1998) and the endowment of consumers with specific human attributes (Escalas and Bettman 2005) are extended by offering evidence for brands' potential to enhance social connectivity. According to our findings, displaying brand names in conjunction with visuals seen by consumers as human faces, can increase brand liking. This outcome complements previous studies that have treated brands as persons (Delbaere, McQuarrie, and Phillips 2011), with human-like characteristics (Geuens, Weijters, and DeWulf 2009), or even relationship partners (Batra, Ahuvia, and Bagozzi 2012; Fournier and Alvarez 2012) by demonstrating that the mere process of seeing human in a brand (rather than specific attributions or human-like characteristics) increases liking for the brand.

Second, our work integrates fluency research with people's evolutionary tendency to categorize visual stimuli as human faces rather than objects (Dunning and Balcetis 2013; Öhman and Mineka 2001) to show that "seeing" a face increases brand liking because processing is more fluent than for ambiguous visuals. While researchers have frequently focused on consumer evaluative or affective response to brand communications (e.g., Batra and Homer 2004; Orth, Malkewitz, and Bee 2010; Till and Busler 2000), more recent research highlights processing fluency as a possible driver of brand liking (Novemsky et al. 2007; Labroo, Dhar, and Schwarz 2008; Orth and Malkewitz 2012). Our finding that it is the greater fluency of consumers seeing a face that leads to more positive brand evaluation, adds a metacognitive perspective to established advertising frameworks (MacInnis and Jaworski 1989).

Third, the present work unites the literatures on need-to-belong (Baumeister and Leary 1995;

Cacioppo et al. 2002; Donthu and Gilliland 2002) and motivational influences on visual perception (e.g., Balcetis and Dunning 2006) to show that a lack of social connection relates to “wishful seeing”, an enhanced recognition of human faces with subsequent misattribution of fluency-evoked positive affect to the brand. Extending advertising studies on loneliness (Donthu and Gilliland 2002) and research on individuals’ tendency to anthropomorphize (Epley, Waytz, and Cacioppo 2007) indicates that people with a greater need for social connection excel in seeing faces and are more likely to exhibit greater liking for the brand.

Several managerial implications of the present research are worth mentioning. Given the widespread use of visuals in wine advertising, promotion, or packaging, perhaps the most important implication of our work is to alert professionals to the relevance and possible effects of ambiguity in brand visuals. As our findings show, easily and effortlessly resolving visual ambiguity can lead to initial brand liking, especially when viewers “see human”. While this effect is likely to be more pronounced with faces (rather than other human shapes) given the human bias in resolving ambiguous stimuli, managers may be interested in benefitting from the phenomenon, for example in parallel to employing attractive endorsers.

Managers may also be interested in the evidence pointing at the potential of social connectivity as a driver of brand liking. Singles have been identified as an expanding market (Donthu and Gilliland 2002), and our finding that “seeing human” increases brand liking with consumers who feel lonely or tend to anthropomorphize may provide advertising and brand managers with an understanding of how to connect with single consumers. However, an important advantage of such an indirect approach (compared with directly portraying single consumers as a target audience) lies in its additional appeal to non-single consumers.

The finding that the positive effect of “seeing a face” holds not only with one’s own race but additionally with other-race faces may attenuate concerns that the practical relevance of our work could be limited to situations where the ethnicity of viewers matches the one of endorsers. We hope the contribution of this study will stimulate further research in this field.

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Love at second sight: Temporal effects of design typicality on brand liking

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◦*Purpose: Designs typical for a category (i.e., wine) are usually better liked by consumers as they find them more diagnostic. In contrast, atypical designs may be more likely to stand out in a retail environment, and may be processed more deeply, possibly increasing long-term liking. Integrating processing research with studies of schema congruity, this paper examines how the typicality of wine packages relates to short-term and long-term consumer liking.*

◦*Design/methodology/approach: Employing fictitious brand name and visuals, two experiments test how typical, moderately atypical and atypical wine package designs relate to diagnosticity and liking immediately after initial exposure (short-term condition) and after several days' time has passed (long-term condition). The first experiment (N=382) employs abstract package designs and is complemented by a second experiment (N=122) that employs realistic designs and additionally tests the interactive effects of design typicality and consumer tasting of the wine.*

◦*Findings: Across the two studies, the findings indicate that design typicality facilitates diagnosticity, which, in turn, increases liking. In the short-term condition consumers like brands with typical designs more than moderately atypical ones, which they like more than atypical packages. Diagnosticity increases, however, from short-term to long-term for moderately atypical packages more than for typical or atypical ones, hereby increasing liking. This effect is particularly pronounced when consumers evaluate the taste positively at the time of initial exposure.*

◦*Practical implications: The findings suggest that wine marketers may find themselves in a quandary as they need to decide whether to focus on short-term persuasion (by creating typical designs) or long-term attractiveness (by using moderately atypical designs) in conjunction with tastings.*

Keywords: package design, typicality, diagnosticity, brand attitude, tasting

1. INTRODUCTION

Visual design is an important consideration in wine packaging since an offer's visual appearance captures attention (Pieters et al., 2010), generates liking (Bloch, 1995; Cho and Schwarz, 2010), creates value (e.g., Chitturi et al., 2008; Creusen and Schoormans, 2005; Orth et al., 2010), supports positioning (Orth and Malkewitz, 2012), leads to quality inferences (Lockshin, 2003) and, ultimately, aids in building strong brands (Henderson et al., 2003). Although a deep relationship with a brand hinges on extended experiences (Verhoef et al., 2009), liking begins at the first contact and this is where visual design plays a pivotal role.

In employing visual design, marketers adopt different strategies that can be assigned into one of two basic categories, one aiming at distinctiveness and the other at conformity (Schoormans and Robben, 1997). While typical wine package designs align with exemplars, prototypes or archetypes for the category, bearing classical visuals (e.g., vineyards, wineries) and common features (e.g., standard bottle shapes), atypical designs achieve differentiation through unusual visuals (e.g., "critter images"), colors, shapes, typeface and materials (Orth and Malkewitz, 2008). Conforming to consumer expectations (i.e., by adopting a design typical for the category) provides benefits in terms of lower perceived risk (Campbell and Goodstein, 2001) and more fluent processing (Orth and Malkewitz, 2012), whereas differentiation (i.e., choosing an atypical design) makes the package stand out from the crowd and receive greater attention (Schoormans and Robben, 1997). Both strategic approaches hereby differ in design typicality, the degree to which a stimulus is representative of a category (Barsalou, 1985).

Consumers regularly use category information in making judgments about a new category member. For example, looking at a classic Bordeaux style bottle with a chateau on the label in traditional muted red and grey colors may lead consumers to infer that the wine shares similarities with a typical Bordeaux wine (e.g., red, full-bodied, rich of tannins). Research supports the existence of a "prototypes are attractive" effect (Winkielman et al., 2006) such that options typical for a category are more attractive and more likable than either moderately or extremely atypical options (Schwarz, 2004). A series of studies supports this effect for abstract stimuli (Novemsky et al., 2007), new products (Landwehr et al., 2011), brands (Labroo et al., 2008), and servicescapes (Orth and Wirtz, 2013). While researchers have examined consumer responses to the typicality of wine package visual design (e.g., Celhay and Passebois, 2011; Orth and Malkewitz, 2012), most studies have adopted a short-term perspective, examining consumer response immediately after exposure to the typicality stimulus. A more complete framework would thus need to detail long-term effects where the time between initial exposure and a second encounter possibly affects the relationship between typicality and consumer response. Identifying how temporal conditions influence the typicality effect will provide a richer understanding of the phenomenon as it relates to consumer behavior. Research is consistent with this goal; for example, studies of visual processing (van Rompay et al., 2009) and schema congruity (Meyers-Levy and Tybout, 1989) demonstrate that a stimulus is processed more in-depth and preferred when it is only moderately typical. These studies suggest that short- versus long-term outcomes of the typicality effect may differ.

The current research proposes that individual processing of design typicality is an important variable that differentially impacts short- and long-term consumer liking. Specifically, we propose that the positive typicality effect observed immediately after initial exposure (i.e., in the short-term) will be different from the one when a consumer re-encounters the design after some time has passed (i.e., in the long-term). Instead, when time has passed, consumers will have a preference for the novel over the norm, liking an option that is moderately atypical for a category better than one that is typical.

Two studies examine effects of perceived typicality with wine package designs to provide support for the important role of time on consumer liking of moderately atypical packages. The first study demonstrates that time alters the relationship between typicality and liking (through

diagnosticity) for images of abstract wine packages. The second study replicates and extends this finding by demonstrating that typicality and tasting interact in shaping diagnosticity and consequently liking. Together, these studies provide support for temporal changes in liking due to changing diagnosticity, and equip marketers with a better understanding of divergent short- and long-term evaluative outcomes of moderately atypical designs.

2. LITERATURE AND HYPOTHESES

2.1. Typicality and Viewer Processing

Typicality combines characteristics such as representative, natural, and archetypical (Henderson et al., 2004), and is usually defined as the degree to which an object overlaps with others commonly encountered in the category, or is representative of the category (Barsalou, 1985). For example, a Bordeaux-style wine bottle, bearing a traditional label with a classical Chateau pictured in muted colors and a red closure on top is more typical for the wine category than a cresting moon-shaped vessel in metallic blue with a minimalistic edged label and a bright yellow closure (Orth and Malkewitz, 2008). Typical stimuli are recognized more accurately than atypical ones (Cabeza and Kato, 2000; Rousselet et al., 2002), and relate to higher liking (Hekkert et al., 2003). In addition, typical stimuli serve as “goodness-of-example” indicators and tend to correlate substantially with convergent meaning and familiarity (Orth and Malkewitz, 2008). In contrast, designs low in typicality are more difficult to process and require more cognitive effort (Cho and Schwarz, 2010). Partially replicating previous research, we expect:

H1: *In the short-term condition, brand liking will be higher for typical rather than moderately atypical or atypical designs.*

2.2. The Effect of Typicality on Diagnosticity

Diagnosticity of information – the ability of sensory input to aid in forming evaluative judgments - helps to either confirm or disconfirm prior held beliefs and expectations (Menon et al., 1995). According to the accessibility-diagnosticity model (Feldman and Lynch, 1988), accessible information (i.e., design typicality) is used in the process of evaluation and choice when it is diagnostic. The more diagnostic the information, the more helpful it is for consumers to evaluate an offer’s quality and performance (Herr et al., 1991). Non-diagnostic information, in contrast, is open to multiple interpretations (Herr et al., 1991). Previous studies have established that diagnosticity affects consumer evaluation of product images (Jiang and Benbasat, 2004/5), nutritional information on product packages (Garretson and Burton, 2000), and works in combination with actual taste (Kempf and Smith, 1998).

In this research, we use a product category-based definition of typicality. Specifically, we define typicality in terms of category schema similarity—the extent to which a package design is perceived as similar to current representations of the wine category. Past research (e.g., Skowronski and Carlston, 1987) suggests that the greater the shared associations between two targets, the more diagnostic information about one is for making judgments about the other. In the typicality context, this finding implies that as the shared associations between the category and the wine package increase so does the diagnosticity of information about the package (e.g., package design elements) for making judgments. In other words, typical designs support prior schemata about the category and will thus be perceived as more diagnostic, whereas low typicality designs should be less likely to fit in with prior held beliefs about the category, relating to perceptions of lower diagnosticity. Diagnosticity, in turn, should have a positive effect on brand liking as discussed in the previous section. We expect:

H2: *The effect of typicality on liking will be mediated by diagnosticity.*

2.3. Effects of Typicality Processing on Schemata

According to the three-partite model of memory (Atkinson and Shiffrin, 1968) the processing of current information in short-term memory interacts with information stored in long-term memory. Specifically, current information in short-term memory (e.g., visual input on a package design) triggers the retrieval of associated long-term memories (i.e., schemata) that are compared against the new input (Burke and Srull, 1988). In line with the thinking of Craik (2002), type and depth of stimulus processing impact subsequent storage in memory. A critical factor in processing is the congruity or fit (i.e., typicality) between current information and schemata stored in long-term memory (Baddeley, 2010).

Conceptualized as an association network of knowledge and expectations in memory, both of which are organized through experience, a schema is an abstract, cognitive structure that represents some stimulus domain, such as a person, place, event, or object (Taylor and Crocker, 1981). Through their involvement in encoding, interpretation, retention, and retrieval of information, schemata can influence perceptual cognitive activities through the generation of expectancies (Taylor and Crocker, 1981). For example, when new information is received, individuals use existing schemata to process the congruity of this information (i.e., the fit with the existing schema).

A key function of schemata is the provision of processing strategies that contain procedural definitions of its potential functions and operations (Norman and Bobrow, 1975). The expectancy system of a schema, including organization and interconnections of relevant information, is thought to guide the process of resolving incongruity (Lee and Schumann, 2004). By first identifying the level of incongruity, and then determining the difficulty (or ease) of resolution, incongruities are resolved either within the existing cognitive structure or by modifying structures (Mandler, 1982). Three types of processing strategies dealing with varying levels of incongruity and relating to distinct outcomes (Mandler, 1982) are relevant to the current context: assimilation, alternative schema, and accommodation.

Assimilation refers to the placement of the incongruent information into existing schemata. Assimilation of incongruity occurs with no or relatively weak levels of incongruity that can be easily incorporated. Previous research shows that consumers can easily assimilate weak incongruity between a generic product category and brand attributes (Sujan and Bettman, 1989), assimilate slightly incongruent information about a product with minimal cognitive effort (Meyers-Levy and Tybout, 1989), and accept slight incongruity of an advertised brand when it shares enough consistent attributes with the generic schema to be assimilated into the existing schema (Sujan and Bettman, 1989). Assimilation employs fewer cognitive resources than other processing strategies and receives less elaboration (Meyers-Levy and Malaviya, 1999). Stimuli that are easily assimilated are less likely to entail modification to long-term memory (Unkelbach, 2007).

Stimuli that are less congruent and cannot be easily processed and assimilated may require additional processing resources such as analogous reasoning (Vosniadou and Ortony, 1989) or extensive reinterpretation (Lee and Schumann, 2004). In employing analogies to resolve moderate incongruity, information from an existing schema can be recalled and transferred in a new way as a result of a productive thinking process (Guilford, 1965). Forming new connections and/or putting the incongruent representation under an alternative schema, or transferring prior knowledge to resolve incongruity, does not necessarily involve drastic changes in current schema structures. Instead, it uses other existing schemas to resolve moderate incongruity (Meyers-Levy and Tybout, 1989; Ozanne et al., 1992).

When confronted with severe incongruity, individuals may engage in an effortful cognitive process to be able to reinterpret incongruent information or reorganize current schema structure (Tesser and Leone, 1977). If people cannot use analogy or transfer prior knowledge

from existing schema to the target incongruity, a new schema is required. Specifically, in response to severe incongruities, a person might restructure his/her knowledge schema or build a new associative link between existing schemata that were not previously connected. While this process of creating a new schema will enable successful accommodation, it typically demands much more cognitive effort and application of cognitive resources.

In the case of wine packages, individuals would typically hold visual appearance relevant schemata (representations of typical wine package designs), acquired over time. This cognitive representation of the package, in terms of the container shape, label, colors, images, typefont, etc. is a set of abstracted attributes that might be used to describe this package (Orth and Malkewitz, 2008). When a consumer encounters a new package, the characteristics of that stimulus may be compared for congruity with their available schema. The level of congruity between the stimulus (the package design elements) and an evoked schema then influence processing and long-term memory (Mandler, 1982). The effort required for processing typicality increases from assimilation to alternative schema to accommodation strategies (Neuschatz et al., 2002). Integrating the discussion above with the previously reviewed diagnosticity literature we expect that typical designs should fit with existing schemata and should relate to little change in liking when encountered at a later time. Moderately atypical designs should likely become assimilated or relate to alternative schema, hereby relating to positive changes in liking when encountered at a later time, because the moderate deviation has been incorporated into a modified schema resulting in a subsequently better fit. Atypical designs, finally, should be more likely to relate to more extensive schema restructuring and accommodation, hereby relating to smaller changes in liking when encountered after the initial event. We expect:

H3: *Changes in liking from the short-term to the long-term condition will be greater (and more positive) for moderately atypical rather than typical or atypical designs.*

2.4. Interactive Effects of Tasting the Wine

Some of the wine's attributes, such as the sensory characteristics can only be assessed during consumption, i.e., product experience (Lockshin, 2003; Mueller, 2004). Product experience (i.e., sampling a wine) is particularly persuasive for three reasons (Hoch, 2002): any resulting visual, tactile, olfactory, auditory, and taste information is (1) self-generated, with maximum trustworthiness of the source (oneself); (2) more engaging, vivid, and memorable than corporate communication; and (3) the subjectivity of taste allows consumers to accommodate to chosen alternatives and results in infrequent regrets. In line with the expectation-disconfirmation paradigm (Oliver, 1980), relying on schemata when processing information not only influences the manner in which consumers evaluate new products, but additionally affects post-trial judgments and attitudes (Stayman et al., 1992). Specifically, when encountering information very discrepant from a prior category schema, more negative evaluative outcomes follow the sampling, compared with the situation in which the experience matches schema expectations.

Applying Mandler's (1982) model, Stayman et al. (1992) studied the post-trial evaluation effects of the level of congruity between category schema expectations and new product performance. Categorization theory specifically suggests that a failure to match expectations during the trial may influence post-trial judgments not only through better or worse judgments, but also through discrepancy from a schema-based expectation (Mandler, 1982). For example, a moderate positive discrepancy from performance expectations produces more positive evaluations than would performance that meets expectations or is extremely discrepant from expectations (Meyers-Levy & Tybout, 1989). In addition, a moderate discrepancy between expectations and trial experience results in a relatively deeper processing of the trial experience than would performance that either matches expectations or is extremely

discrepant (Ozanne et al., 1992). Integrating these findings with the previous research on diagnosticity we expect:

H4: *The positivity of taste evaluation will enhance the effect of design typicality on diagnosticity such that diagnosticity will be greater as the positive nature of taste evaluation increases.*

In summary, this research aims to contribute significantly to three critical issues by examining (1) the effect of package design typicality on short-term and long-term brand liking, (2) the role of diagnosticity as a mediator of the typicality - liking relationship, and (3) the role of taste evaluation as a moderator of the typicality - diagnosticity relationship.

3. EMPIRICAL STUDIES

Two experiments were conducted to test the effects of design typicality on brand liking (through diagnosticity) in short-term and long-term conditions. The first study examines the effects of typicality with abstract stimuli. The second study employs realistic stimuli and wine tasting to examine the robustness of effects in the presence of additional sensory input. The wine bottle was chosen as the target product consistent with previous research (Orth and Malkewitz, 2008). First, the wine category is one of the most established and traditional categories in studying visual design effects. Second, it is a product with which many consumers have at least some familiarity and interest in. Third, because of the wide variety of visual designs, wine styles, and available options evaluating a wine package is expected to involve cognitive effort.

3.1. Experiment 1

Employing abstract wine package stimuli study 1 (N=263) tests the assertion that consumer liking (due to improved diagnosticity) will increase from the short-term to the long-term condition more for moderately atypical designs than for atypical or typical designs. The study further probes the underlying process by testing the mediating role of diagnosticity. The experiment employs a 3 (visual design: typical vs. moderately atypical vs. atypical) x 2 (long-term vs. short-term condition) mixed factorial design: While the typicality treatments were administered between-subjects, the temporal conditions involved within-subjects measurements.

Specific treatments consisted of custom-made digital images of a Bordeaux style wine bottle with a label (consisting of a visual and text) and a fictitious brand name (see Boudreaux and Palmer, 2007). Building on previous research (Henderson et al., 2004; Thomas and Pickering, 2003) an extensive pretest (N=113) aided in selecting a neutral brand name (Abington), and combinations of visual and typeface designed to generate variance in design typicality. Stimuli selected for the main study consisted of professional images created by an advertising and design agency to represent one design, each low (M=2.9; Aztec Goddess + Typefont Ravie), moderate (M=4.3; Vine Terraces + Typefont Playbill), and high (M=5.3 Chateau + Typefont Kunstler Script) on a seven-point typicality scale (Campbell and Goodstein, 2001).

In the short-term condition (T1) of the main study, one randomly selected image was displayed on a computer screen for consumers to indicate typicality (Campbell and Goodstein, 2001; $\alpha=.84$, M=4.11, SD=1.38), diagnosticity (Ahluwalia and Gürhan-Canli, 2000; $\alpha=.86$, M=3.88, SD=1.47), liking (Fabrigar and Petty, 1999; $\alpha=.85$, M=4.12, SD=1.39), intention to purchase (Putrevu and Lord, 1994; $\alpha=.88$, M=3.46, SD=1.44) and personal information. Seven to fourteen days after the initial session, participants returned for a second session corresponding to the long-term condition (T2). Measures were identical to the ones in T1 and consisted of item batteries for assessing liking, diagnosticity, and intention to purchase. Randomly generated three-digit codes received by respondents at the conclusion of T1 ascertained that individual data from both sessions could be merged.

ANOVA, used to check the success of the manipulation, indicated a significant effect of the

treatments on perceived typicality ($F(2,261)=27.8, p=.001$) with the package designed for low typicality receiving the lowest ($M=3.35$), the high-typicality design receiving the highest ($M=4.86$), and the third design receiving an intermediate score ($M=4.40$), as intended.

In the short-term condition, ANOVA results indicated a significant effect of design typicality on liking ($F(2,379) = 7.04, p = .001$) with scores increasing from the atypical ($M=3.22$) to the moderately atypical ($M=3.48$) to the typical design ($M=3.80$). Liking, in turn, had a significant effect on intention to purchase ($\beta=.48, t=10.76, p=.001$) and even choice ($\beta=.27, t=5.52, p=.001$). These findings support hypothesis 1.

To test for mediation, we utilized Preacher and Hayes' (2004) macro. For the short-term condition, results indicate that typicality had a positive effect on diagnosticity ($B=.16, t=2.91, p=.004$); diagnosticity had a positive effect on liking, when controlling for typicality ($B=.36, t=9.46, p=.001$); and, finally, typicality had an indirect positive effect on liking ($B=.11, t=2.40, p=.017$). The non-significant effect of typicality on liking when controlling for diagnosticity ($B=.05, t=1.24, p=.215$) indicates that diagnosticity fully mediates the relationship. Both the formal two-tailed significance test (Sobel $z=2.77, p=.006$) and bootstrapping (LL95CI=.017; UL95CI=.104) demonstrated that the indirect effect was significant, supporting hypothesis 2.

Repeating the test for mediation with long-term condition data yielded similar results: Typicality had a positive effect on diagnosticity ($B=.29, t=4.86, p=.001$); diagnosticity had a positive effect on liking, when controlling for typicality ($B=.55, t=8.64, p=.001$); and, finally, typicality had an indirect positive effect on liking ($B=.31, t=4.58, p=.001$). The significant (and weaker) effect of typicality on liking when controlling for diagnosticity ($B=.16, t=2.48, p=.014$) indicates a partial mediation. Both the formal two-tailed significance test (Sobel $z=4.22, p=.001$) and bootstrapping (LL95CI=.084; UL95CI=.238) demonstrated that the indirect effect was significant, hence providing further support for hypothesis 2.

Further important to our core prediction, changes in liking from the short-term to the long-term condition (estimated as intra-individual differences of scores in T1 subtracted from scores in T2) were significantly different for the typicality treatments ($F(2,261)=7.90, p=.001$). Specifically, liking did not change significantly ($p>.05$) for atypical designs ($\Delta M=.29$), but increased significantly for moderately atypical ($\Delta M=.91$) and typical designs ($\Delta M=1.17$). Perhaps more importantly, changes in diagnosticity were significantly different for the atypical ($\Delta M=.16$) and moderately atypical ($\Delta M=.59$) but not the typical design ($\Delta M=.34$), providing corroborating evidence for hypothesis 3.

Taken together, study 1 findings support the claim that moderately atypical designs may be better liked by consumers in the long run due to greater diagnosticity. These results were, however, obtained with a set of abstract stimuli and no actual tasting of the wine. These possible limitations motivated the second study.

3.2. Experiment 2

The second study ($N=122$) employs digital images of actual wine packages to test the effect of typicality on short-term and long-term liking including the mediating role of diagnosticity and the moderating role of taste evaluation. The experiment re-employs the previously used 3 (visual design: typical vs. moderately atypical vs. atypical) x 2 (long-term vs. short-term condition) mixed factorial design with consumers sampling the wine after exposure to the visual in condition T1.

Stimulus development started with a selection of actual wine package designs submitted by a wine retailer to score high on typicality. A professional designer then modified those images, thereby creating moderately atypical and atypical variations. The guiding principle to generate such sets of designs was to modify design properties only and to not change other possible drivers of consumers' purchase intention (e.g., varietal, brand, visual content, or vintage). A pretest ($N=20$) aided in selecting package visuals designed to generate variance in typicality.

Procedures were identical to the ones employed in study 1 with one exception. In the short-

term condition, immediately after submitting their ratings on typicality ($\alpha=.89$, $M=4.22$, $SD=1.58$), diagnosticity ($\alpha=.86$, $M=4.04$, $SD=1.58$), liking ($\alpha=.90$, $M=4.57$, $SD=1.44$), intention to purchase ($\alpha=.84$, $M=4.18$, $SD=1.51$) and personal information, consumers sampled the wine (a 2011 Riesling) and indicated their evaluation of taste (aroma intensity, sweetness, sourness, freshness) as well as their overall liking of the wine taste. Exactly two weeks after T1, participants returned and indicated liking, diagnosticity, and intention to purchase.

An ANOVA to check the success of the experimental manipulation indicated a significant effect of the treatments on perceived typicality ($F(2,120)=58.82$, $p=.001$) with the package designed for low typicality receiving the lowest ($M=2.75$), the high-typicality design receiving the highest ($M=5.43$), and the third design receiving an intermediate score ($M=4.42$).

In the short-term condition, ANOVA results indicated a significant effect of design typicality on liking ($F(2,120)=13.06$, $p=.001$) with scores increasing from the atypical ($M=3.73$) to the moderately atypical ($M=4.77$) to the typical design ($M=5.17$). Liking, in turn, had a significant effect on intention to purchase ($\beta=.66$, $t=9.49$, $p=.000$) and choice ($\beta=.40$, $t=4.79$, $p=.000$). These findings provide additional support for hypothesis 1.

Mediation test results for the short-term condition indicate a positive effect of typicality on diagnosticity ($B=.40$, $t=4.80$, $p=.001$); a positive effect of diagnosticity on liking, when controlling for typicality ($B=.47$, $t=6.35$, $p=.001$), and an indirect positive effect of typicality on liking ($B=.20$, $t=2.61$, $p=.010$). The non-significant effect of typicality on liking when controlling for diagnosticity ($B=.01$, $t=.02$, $p=.841$) indicates that diagnosticity fully mediates the relationship. Both the formal two-tailed significance test (Sobel $z=3.80$, $p=.001$) and bootstrapping (LL95CI=.091; UL95CI=.284) demonstrate that the indirect effect is significant. These results are consistent with those obtained in study 1 and further support hypothesis 2.

As with study 1, typicality had a significant influence on changes in liking from the short-term to the long-term condition ($F(2,120)=3.19$, $p=.045$). Specific changes included a decrease in liking for atypical designs ($\Delta M=-.45$), an increase in liking for moderately atypical designs ($\Delta M=.25$) and no significant change in liking for typical designs ($\Delta M=-.01$). These results provide further support for hypothesis 3.

Mediation tests for the long-term condition indicate a positive effect of typicality on diagnosticity ($B=.42$, $t=4.24$, $p=.001$), a positive effect of diagnosticity on liking, when controlling for typicality ($B=.66$, $t=8.13$, $p=.001$), and an indirect positive effect of typicality on liking ($B=.51$, $t=4.83$, $p=.001$). The significant (and weaker) effect of typicality on liking when controlling for diagnosticity ($B=.23$, $t=2.60$, $p=.010$) indicates a partial mediation. Both the formal two-tailed significance test (Sobel $z=3.74$, $p=.001$) and bootstrapping (LL95CI=.130; UL95CI=.418) demonstrate that the indirect effect is significant, hence providing further support for hypothesis 2.

In the final analyses a two-factorial GLM was utilized to test hypothesis 4 and the claim that a positive taste evaluation (in T1) enhances the positive effect of typicality on diagnosticity (in T2). Results indicate a significant main effect of typicality ($F(18,56)=3.00$, $p=.001$), a non-significant main effect of taste evaluation ($F(5,56)=1.57$, $p=.183$) and a significant typicality x taste interaction ($F(32,56)=2.06$, $p=.009$). Specifically, diagnosticity scores increased significantly from low to high taste scores for moderately atypical designs ($M=4.10$ vs. $M=4.71$), did not change significantly for atypical designs ($M=2.82$ vs $M=3.06$) and decreased significantly for typical designs ($M=5.32$ vs. $M=4.70$). These results provide support for hypothesis 4.

4. DISCUSSION

The present work extends research on designing wine packages in at least three ways. First, studies of consumer short-term responses to design typicality (Celhay and Passebois, 2011; Orth and Malkewitz, 2012) and schema congruency (Meyers-Levy and Tybout, 1989; Sujan and Bettman, 1989; Unkelbach, 2007) are extended by offering evidence for differential effects

over time. According to our findings, consumer liking increases more from short- to long-term for moderately atypical designs than it does for typical or atypical designs. This outcome complements previous findings by demonstrating temporal changes in liking due to different levels of design typicality. While a part of increase in liking may be attributable to mere exposure effects (Landwehr et al., 2013), these are thought to occur only after several exposures (Landwehr et al., 2013). In addition, mere exposure theory is not capable of explaining differences in regard to levels of typicality.

Second, our work integrates diagnosticity research (Feldman and Lynch, 1988; Menon et al., 1995) with studies of visual design (Orth and Malkewitz, 2008) to show that the typicality of a package design relates to liking because consumers use their impressions of typicality to judge quality. While researchers have previously investigated consumer evaluative response to visual design, using processing fluency (Orth and Malkewitz, 2012) and visual attractiveness (Orth et al., 2010) as process explanations, other research highlights diagnosticity as a possible driver of brand liking (Page & Herr, 2002). Our finding that a medium level of typicality (i.e., moderately atypical designs) relate to the highest diagnosticity, adds a design perspective to established expectation-disconfirmation (Oliver, 1980) and congruence frameworks (Mandler, 1982; Meyers-Levy and Tybout, 1989).

Third, the present work unites the literature on visual design (e.g., Orth and Malkewitz, 2008) and product trial (Hoch, 2002) to show that a positive taste evaluation of a wine enhances typicality effects on diagnosticity and consequently liking. Extending studies on after-trial evaluation (Ozanne et al., 1992; Stayman et al., 1992) indicates that a positive taste evaluation enhances the diagnosticity of typicality, especially for moderately atypical ones.

Several managerial implications of the present research are worth mentioning. Given substantial variance in what consumers regard as typical (in France, any deviation from the standard chateau on a wine label may be perceived as atypical, whereas in the U.S., even “critter” images may classify as typical) perhaps the most important implication of our work is to alert professionals to the relevance and possible effects of typicality in wine package design. As our findings show, when the goal is to stimulate initial liking, especially in contexts where consumers cannot taste the wine, typical designs should be used as they relate to high diagnosticity. When the goal is to trigger longer-term liking, however, marketers should use moderately atypical designs as those relate to more desirable responses, especially when consumers are given an opportunity to sample the wine.

The finding that a positive taste evaluation lowers the diagnosticity of typical designs is unexpected. We speculate that the sensory input provided through the palate takes precedence over the evaluative judgment of “quality” as captured in diagnosticity ratings. Our data does not account for this possibility. We hope the contribution of this study will stimulate further research in this field.

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The mere presence of a photo on a product label can change taste perception (Working paper)

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◦Purpose: Photos that are related to claims but not diagnostic of their truth can lead people to think those claims are true. Photos might produce this effect by making it easier for people to generate information related to claims, boosting conceptual fluency. Might photos on wine labels also affect the perceived taste of the wine?

◦Design/methodology/approach: We developed a set of wine names and told participants they would sample each. All of the wines were actually the same. As participants tasted each wine, they decided whether the claim “This wine tastes high quality” was true or false. Some wine names appeared with a related photo next to a label during tasting; other wine names appeared without a photo next to the label.

◦Findings: People responded true (that the wine tasted high quality) more often when wine names appeared with photos versus without photos. This finding suggests that photos related to wine names can affect people’s taste judgments, and fits with the idea that people use conceptual fluency as a metacognitive cue to evaluate taste.

◦Practical implications: These findings have vast marketing implications as they demonstrate that consumers’ experience of a product can be altered by pairing the product’s name with a related photo. These findings also have implications for wine label design.

Key words: Conceptual fluency, Judgments, Taste, Perception

1. INTRODUCTION

Would a photo of a kookaburra on the label of a wine called “Laughing Kookaburra” lead you to think it tastes high quality? The photo is an extrinsic cue, and cannot change the way the wine interacts with your taste buds to produce a taste sensation. Extrinsic cues are factors that do not alter intrinsic properties of the product (e.g., the wine itself; Dawar & Parker, 1994). Yet people often encounter food and beverages in packaging covered with such tangential images. Do those images influence consumers’ judgments about how those products taste?

We know that visual art on a product’s package (or label) has a positive impact on consumer perceptions (Hagtvedt & Patrick, 2008). We also know that non-probative photos—those that provide no evidence for or against a claim—affect people’s judgments about those claims: in one study, people responded true more often to trivia claims (Turtles are deaf) when those claims appeared with related photos (a photo of a turtle, for instance; Newman, Garry, Bernstein, Kantner, & Lindsay, 2012). One reason photos might produce these effects is because they help people bring to mind related thoughts and images, making the information about the claim easier to process. And we know that when people make decisions, they draw on the experience of easy processing for many judgments: people tend to judge information that is easy to perceive, pronounce, or bring to mind, as more true, familiar, and likable (Alter & Oppenheimer, 2009). In one study, people studied a list of words and later saw some of those words mixed with new words and decided whether they saw each. Preceding test words (*boat*) by highly related sentence fragments (*The stormy seas tossed the*) led people to call those words “old” more often than preceding test words by loosely related sentence fragments (*He saved up his money and bought a*; Whittlesea, 1993). The highly related sentence fragments are thought to produce this false sense of familiarity by making it relatively easy for people to process the meaning of words, boosting conceptual fluency.

But people’s interpretations of fluency experiences are context dependent: the highly related sentence fragments, for example, can also lead people to judge target words as more pleasant (Whittlesea, 1993; for a review, see Alter & Oppenheimer, 2009). Because the meaning of ease is malleable, people might use it as a cue for taste evaluations as well. Indeed, one study showed that consumers rated cheese associated with perceptually difficult to read font as higher quality, presumably because difficulty signals uniqueness (Pocheptsova, Labroo, & Dhar, 2010). Moreover, another study showed that consumers thought orange juice tasted better when the name of the juice was written in an easy to read font (KNOLLWOOD) versus a difficult to read font (KNOLLWOOD; Mantonakis, Galiffi, Aysan, & Beckett, 2013). The ease with which people could process the extrinsic product cues contaminated their sensory perceptions, a finding that suggests consumers’ ongoing processing experiences influence taste. Might conceptual fluency arising from an extrinsic product cue (such as an image associated with a label) also contaminate taste perception? That is the question we address in this research.

We predicted photos related to the names of products would change consumers’ taste evaluations. A photo of a kookaburra, for example, might help people bring to mind information related to the bird, boosting conceptual fluency for the wine name “Laughing Kookaburra”. While thoughts and images gleaned from the photo should not provide diagnostic evidence about how Laughing Kookaburra wine tastes, the boost in conceptual fluency might nonetheless influence the consumer’s sensory evaluation.

2. METHOD

To examine that hypothesis, we developed a set of six wine names by pairing adjectives and

nouns from the MRC Psycholinguistic database. We chose adjectives rated high (Little) and nouns rated low (Wherry) in familiarity because we suspected photos would help people generate thoughts and images best for nouns that were relatively unknown. We avoided nouns with an obvious relation to wine. We used wine as the product because it allows us to examine the relationship between the photo effect and participants' knowledge about wine.

In a series of studies (only 1 is explained in detail here) we showed that the presence of a photo was associated with not only increased quality perceptions, but also increased taste perceptions.

For our tasting study, we recruited 121 students and members of the local community to participate in the experiment in exchange for course credit, or five Canadian dollars. We told participants they would sample wines from a wine festival, and explained that judges had rated some of the wines as "low quality" and others as "high quality". All of the wines were actually the same (a local Pinot Noir), unbeknownst to participants in the study. As participants tasted each wine, their task was to decide whether the claim "This wine tastes high quality" was true or false. Wine labels for the corresponding wine appeared on a computer screen, one at a time, in a random order against a white background.

We used a one-factor (photo with label vs. no photo with label), within subjects design, whereby half of the wine names appeared with a photo that depicted the noun in its name, counterbalanced so wine names appeared with and without photos equally. After, we gave participants a knowledge test about wine (Hughson & Boakes, 2001) so we could examine whether people's knowledge about wine relates to the photo effect.

3. RESULTS

We calculated the proportion of "true" responses to the claim "This wine tastes high quality", comparing wine names that appeared with and without photos. We used a pairwise t-test to examine claims of "true" responses to the claim "This wine tastes high quality" for the wines that had a photo versus the wines that did not have a photo. As Figure 1 shows, participants responded true more often to the claim when wine names appeared with photos ($M = .50$, $SD = .30$) compared to alone ($M = .42$, $SD = .30$; $t(120) = 2.19$, $p = .03$). There was no significant relationship between the photo effect and participants' knowledge of wine.

4. DISCUSSION

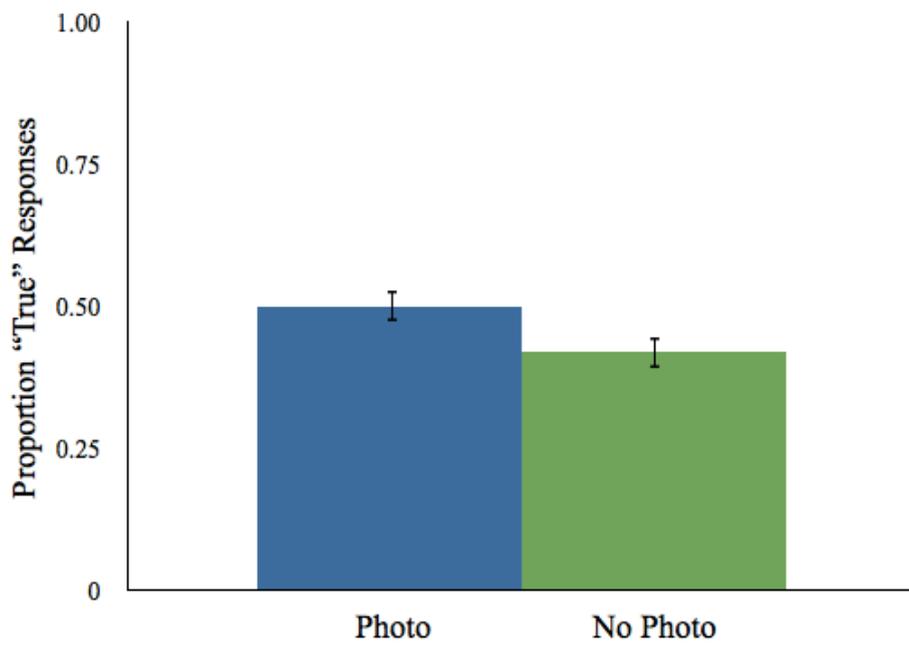
This finding suggests photos can influence judgments about how something tastes, despite that people could have evaluated the proposition based on more diagnostic sensory information. The possibility that photos influenced taste judgments by boosting conceptual fluency converges with research showing that other fluency manipulations (e.g., perceptual) influence taste perception (Mantonakis et al., 2013). Moreover, we speculate that photos exerted these effects even though people do not necessarily believe photos should affect the taste of wine, and this speculation is consistent with people's bias to pin feelings that arise while doing a task as relevant to the task at hand, even when those feelings are irrelevant (Higgins, 1998). This possibility is the focus of follow-up studies that we plan on running.

Practically, the finding that the simple presence of a photo with a wine affects taste perception suggests that when people taste wine or other products, they might be more inclined like the taste of, and perhaps purchase, those that appear with an image, especially if that image makes it easier to bring to mind thoughts and images related to the wine's name.

We suspect that photos influence taste perception by making the generation of information related to product names more fluent—an experience often used as a positive cue (e.g. Alter & Oppenheimer, 2009). It is possible, however, that people instead used the aesthetics of the photos as a cue. Future research will address this alternative explanation by boosting conceptual fluency in a way that is not closely tied to aesthetics of the extrinsic cue. Second, ease can signal truth, or signal that something is positive or preferred, so it is ambiguous from our data whether photos biased people to respond true or positively. Future research will address this ambiguity. Finally, our research did not examine a possible boundary condition of our finding: the type of photo (abstract, organic, landscape, etc.), and this can also be examined in follow up studies. Results of such follow up work will be useful for marketing managers in the wine industry.

Our findings add to the literature showing that metacognitive experiences can influence sensory experiences (Mantonakis et al., 2013). Specifically, the findings suggest that conceptual fluency may be yet another metacognitive cue that people draw on to evaluate taste. In addition, these results might shed light on new experiments in packaging, and the effects of having a photo on different types of packaging on consumer perceptions.

Figure 1: Proportion of “True” responses to the claim “This wine tastes high quality”. Error bars represent standard error.



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The impact of meal experiences and packaging on wine choices

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The impact of meal experiences and packaging on wine choices

Abstract:

Purpose: We examine the moderating effect of the packaging on wine choices in the context of restaurant meal experiences. The meal experience is analysed using the Five Aspects Meal Model. We document correlative patterns between wine packaging, consumers' wine choice criteria and their meal experience.

Design/methodology/approach: We collect field data from four major French cities: Lille, Rennes, Paris and Lyon. Respondents may face 5 types of wine packaging (bottle, glass, carafe, can and PET bottle). We use multi-group analysis to measure the effect of packaging on wine choice, given the meal experience.

Findings: A more convivial meal experience is positively correlated with wine choices that are aligned with the host's recommendation. Other types of meal experiences lead to wine choices that give less consideration to the wine's origin. The moderating effect of packaging is validated but mostly depends on non-traditional packaging (PET and can).

Practical implications: Fast-food consumers seem to accept more easily non-traditional packaging like the PET bottle and can. For the producer side, the PET could be used in convivial context without any risk to dislike the others guest and it could use to discover a simple wine in an informal context. For the can packaging, the wine will be basic in regular occasions or occasions without pressure (simplicity and informal occasion).

Keywords: meal experience, wine choice, packaging, multi-group analysis

Restaurant customers often seek the proper way to associate wine with a particular dish. Since ancient times, wine has been recognized as an enhancer of food's taste and it does play a fundamental role in the enjoyment of the restaurant dining experience (Davis and Charters 2006). The goal of this research is to analyze, as part of the overall meal experience, the moderating effect of wine packaging on wine choices, in the context of restaurant meals.

Meal Experience and Wine Choice

The meal experience depends on its uniqueness. Unique meals are often associated with special events such as weddings, vacations, exotic settings, etc... In that context, consumers are motivated by a curiosity to discover new cooking, a sense of escape, the pleasure or memory of an extraordinary past meal experience. On the other hand, it is more often the case that people have an expedient meal experience and in that case, they focus more on convenience and quickness rather than pleasurable sensations (Hanefors and Mossberg 2003). A meal experience in which wine consumption takes place has an impact on the "emphasis that the consumer will give the various consumption practices" (Groves et al.2000). On the other hand, when the meal setting changes consumers' preferences for wine may change as well (Hersleth et al. 2003, Jaeger et al. 2009).

A meal setting stimulates the guest aesthetically, and this is the reason why many restaurant owners take this into account when they have understood that their restaurant is broadly speaking an "experience arena" (Westwood 2006). A meal setting naturally includes what the consumer does during the meal, like handling the bottle, the glass or any other sensory activity or rituals. Of course, it also includes interactions with other people and the general marketing environment. Hence, the meal experience includes not only the consumption of products (wines or beverages and dishes) but also the interaction between guests, waiters and the room where the experience takes place. The interaction of product, meeting people and the room create the atmosphere of the setting.

These various interactions have been codified and synthesized in the Five Aspects Meal Model (Gustafsson et al. 2004). When you are in restaurant, the meal experience is defined by an interaction of three aspects: the Design or others physical aspects of the place, the interactivity with other guests or the waitress (the meeting) and all the Products served. The meal takes place in a room, this interaction encompasses in an Atmosphere of the restaurant and the meal but also depends on rules, management resources that make possible the experience (Management Control System).

These interactions may help explain the error-avoidance behavior that many consumers exhibit when ordering a wine. Because of a tension between gathering information and self-representation (Ariely and Levay, 2000), a balance must be achieved between not making an adventurous choice that may turn out to be the wrong choice, and the need to showcase one's own knowledge of wine. Which behavior tends to dominate depends on whether it is business or private setting (Hansen et al.2005). During a business meal, the experience depends not only of the environment, the staff or the food but also on whether the business objectives are being achieved throughout the meal. Thus, business diners appear to require "wine selections that reflect security while an intimate dining experience is focused on creating a warm relationship with others" (Davis and Charters 2006).

Generally speaking, the experience varies depending on what is at stake during the event (Hall et al. 2001). The authors argue that the experience of dinner with friends reveals two values ("fun and enjoyment in life" and "being well respected") though the experience of dinner with family leads to a "warm relationship with others". The differences between these two settings reveal more or less the importance of wine attributes (Hall et al. 2001). The intrinsic attribute (taste) is most important for an intimate dinner, whereas the type of wine (red/white) is most important for a business event. A limitation of Hall et al.'s (2001) analysis is that they do not take into account restaurant attributes (i.e. sommelier and wine list) as criteria to analyze meal experience.

Another factor impacting the experience is a restaurant's reputation. "Famous" restaurants usually have complex wine lists. They call upon a sommelier's expertise for choosing wines or have trained

staff to guide consumers towards familiar wine or wine region (Richie, 2007). When the staff has little knowledge regarding the wines contained in the restaurant's list and the restaurant does not have a sommelier, guests typically choose more classic or house wines by analyzing price–quality relationships, confirm restaurant choice and make informed decisions for the other guests (Richie 2007).

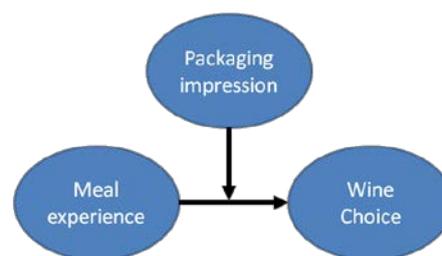
The wine list could help the guest to make the right choice (Lacey et al. 2009) because of the number of references, comments, (Berenguer et al. 2009). There are differences concerning the dimensions of the wine list but if you consider illustration and format size, there are very little differences between restaurants (Berenguer et al. 2009). Hence, packaging has got the same importance whatever the restaurant may be.

Package design is an "extremely influential medium when the purchase decision is made" but not in restaurant context (Orth 2008, Mueller et al. 2010). Hall et al. (2001) consider the packaging and label have minor impact across all the occasion.

In general, packaging generates impressions in the mind of consumers, which influence brand and/or product perception. If the packaging is not consistent with the wine's recognizable attributes and presumed quality, the wine's brand image could suffer as a result. For instance, it would be difficult for most customers to disassociate iconic Bordeaux wines from the classical Bordeaux bottle, because the packaging reflects the stylistic consistency of the wine and remains a true expression of place and identity (Beverland 2005).

Bag in Box packaging is often associated with a perceived wine freshness even if it has been opened for a while. But, consumers do not associate this type of packaging with a high quality product. Drinking wine from a bottle as opposed to a wine glass leads to different feelings and experiences (Spence and Gallace, 2011). When celebrating a special event at the restaurant, it appears natural to choose a packaging consistent with the event. Hall et al. (2001) argue that packaging and labels are most important for ritualized events such as an intimate dinner or a party. Hence, the packaging can moderate the meal and wine experiences. Indeed, when a guest judges that the packaging has low value, the meal experience will be perceived as average and the wine basic. In this article, we consider the moderating effect of packaging on wine choice criteria, given the meal experience. The expected logical interactions are shown in the following diagram (Figure 1).

Figure 1: The effect of packaging on wine choice criteria during a meal



Data Collection and Sample

We collect field data from four major French cities: Lille, Rennes, Paris and Lyon. Each data point is an onsite questionnaire filled by an individual respondent in any of these cities. The sample size is 400 with the following break-down per city (Lille: 102; Rennes: 100; Paris: 104 and Lyon: 94).

Our sample has the following demographic characteristics: men (57.5%), unmarried (45.3%), young (55,8% have less than 35 years), with an elevated level of education (54% have at least 3-year post-high school degree). They live in these cities or nearby cities of more than 100,000 inhabitants (68.4%) with an income of less than 30,000 euros for 51% of them. 39.1% of the sample consume

have begun consuming wine less than 3 years ago, and 34.7% between 3 years and 10 years ago. 45% order more than 10 times wine per year. They define themselves as amateurs (55.8%). They consume a fair amount of wine (58.6% consume wine often and rather often) and mainly red wine (69.5%). They mainly consume French wines: (58.5%) of Bordeaux, then Côtes of the Rhone (33.8%) and finally Burgundy (32.3%). 35.3% consume wines priced below 15 euros a bottle and 39.3% pay a price ranging between 15 and 20 euros.

The respondents were presented 5 packaging types (bottle, glass, carafe, can and PET bottle). The questionnaire includes a measure of packaging impressions with four possible values – (1) pleasing, (2) engaging, (3) reassuring and (4) prominent (Henderson et al., 2004). For the packaging impressions, we implement a factor analysis, and use the factorial scores for each packaging to define a binary variable that takes the values Low vs. High in terms of consumer impression. The questionnaire also included a measure of wine choice criteria applied in the context of restaurants (Cohen et al., 2009). The possible values were: (1) pleasure, (2) recommended by the waitress, (3) good adequacy with the meal, (4) tasted before, (5) suggestion on the menu, (6) suggestion by other guests, (7) availability by glass, (8) exploration, (9) wine grape, (10) appellation, (11) promotion on table, (12) availability by half bottle, (13) knowledgeable but not tasted, (14) special event, (15) pleasure for others, (16) price, (17) local wine, (18) color and (19) the season.

In order to draw up an operational scale for the meal experience, it is necessary to identify the main defining characteristics of a meal experience. Therefore, we also carried out open-ended interviews with three experts in the wine industry. These interviews enabled us to isolate fourteen categories of main reasons, which drive the type of experience sought out: (1) celebrate an event, (2) business meal, (3) meal with colleague, (4) with friends, (5) for the quality of the cooking, (6) for a moment of relaxation, (7) to save time, (8) to please the other, (9) for the aesthetics of the place, (10) in family, (11) with your spouse and without the children, (12) because you do not like to cook, (13) to escape and (14) to spend a convivial moment.

Methodology

First, in order to define the uni-dimensional character of the different constructs used in this article we performed an Exploratory Factor Analysis with a promax rotation. To measure the reliability of the constructs, we then used the more powerful Rho test (Jöreskog, 1971) with small sample and scale and limited number of items. Fornell and Larcker's (1981) procedure was used to verify the psychometric qualities of the scales used. Secondly, the impact of meal experience on wine choice criteria was tested using the EQS model (Bentler and Wu, 2002). With the aim of avoiding problems with multivariate normality, we applied a robust corrected method (Bentler and Wu, 2002) that corrects fit index and the corrected coefficients of the model. Thirdly, in order to test the moderating effect of packaging evaluation (bottle, glass, carafe, can and PET) on the model we carried out a multi-group analysis. To test measurement invariance (Steenkamp and Baumgartner, 1998), we analyze the configural invariance, metric variance, structural invariance, variance factor invariance and error variance invariance. We use Chi-square differences between the model with equal parameters in each group and the model with unequal parameters in each group.

Results

We present the factorial structure of meal experience in Table 1 and wine choice criteria in Table 2.

Table 1a: Rotated Matrix structure – meal experiences

You go to the restaurant for one moment of relaxation	.81		
You go to the restaurant to escape	.78		
You go to the restaurant to spend one convivial moment	.77		
You go to the restaurant with colleagues		.87	
You go to the restaurant for a business meal		.85	
You go to the restaurant with your family			.82
You go to the restaurant with your spouse and without the children			.78

Table 1b: convergent and discriminate validity

	ρ of joreskog	pvc	business	family
Conviviality	0.82	0.61		
Business	0.85	0.74	0.06	
Family	0.78	0.64	0.10	0.02

Three experiences are identified representing 67.5% of the variance. The first dimension describes *conviviality*, the second one *business meal*, and the third one *stepwise family meal*. The convergent and discriminate validities and reliability are verified.

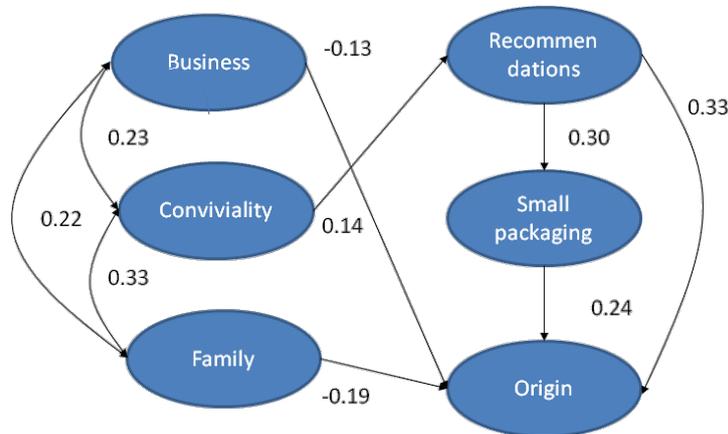
Table 2a: Rotated Matrix structure – wine choice criteria

It is recommended by the waiter	.87		
It is a suggestion on the menu	.85		
It is available to glass		.85	
It is available in half-bottle		.84	
I choose the wine according to the type of vine			.84
I choose the wine according to the appellation			.84

Table 2b: convergent and discriminate validity

	ρ of joreskog	pvc	Small packaging	Origin
recommandation	0.85	0.74		
Small packagings	0.83	0.71	0.03	
origin	0.83	0.70	0.05	0.04

Figure 2: Impact of meal experience on wine choice

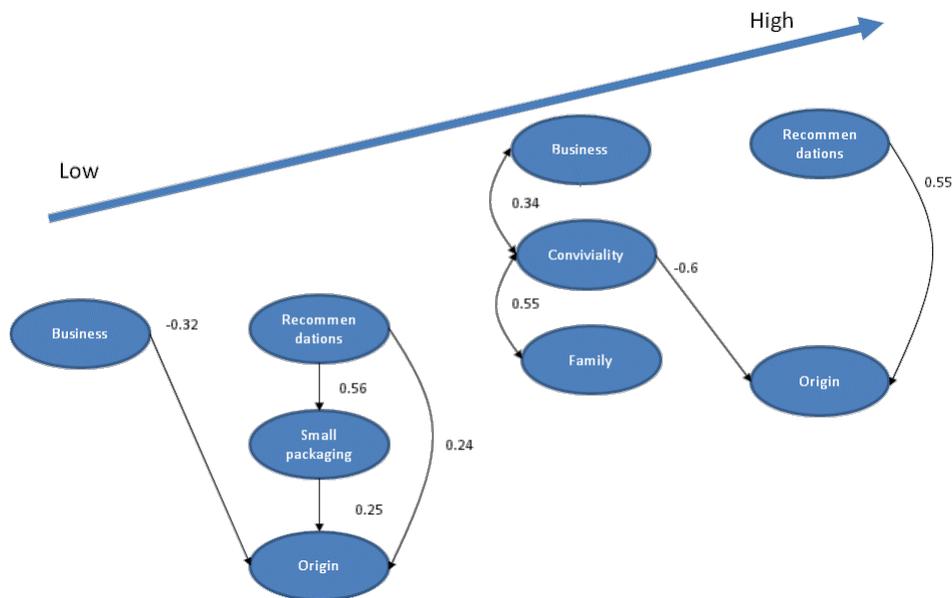


Concerning the impact of packaging on the link between meal experience wine choice criteria, we don't have any difference when the packaging is well evaluated or not for the bottle, the glass and the carafe. So we present only the result for the can and PET packagings that show an effect of the packaging on this link.

Table 3: Invariance validity – effect of can packaging on the link between meal experience and wine choice criteria

effect can	chi2	df	$\Delta\chi^2$	Δdf	sign	RMSEA	CFI
	103.79	78				0.02	0.98
configural invariance	162.28	116	58.49	38	0.02	0.03	0.94
error measurement							
invariance	181.92	93	78.12	15	0.00	NA	NA
metric invariance	120.84	84	17.05	6	0.01	0.03	0.95
structural invariance	119.96	90	16.17	12	0.18	0.02	0.97
variance factor							
invariance	111.41	81	7.62	3	0.05	0.02	0.97
covariance							
invariance	107.09	81	3.29	3	0.35	0.02	0.98

Figure 3: effect of the can on the link between meal experience and wine choice criteria



Now, we verify the invariance of the effect of the can bottle in Table 3. The configural invariance is verified (0.02) and only the differences concerning structural link are significant. All the indicators respect partially their criteria of validity (χ^2 103.79, df 78, $p=0.03$, gfi 0.96, $agfi$ 0.91, nfi 0.86, cfi 0.98 and $rmsea$ 0.02). We present each structural coefficient between meal experience and wine choice for each level of packaging evaluation – see Figure 3. In low packaging evaluation as compared with high packaging evaluation, consumers need more recommendations concerning origin (Low 0.24 versus High 0.55). The impact of meal experience on wine choice criteria is *negative* but we don't have the same link between meal experience and wine choice. When a consumer has a low evaluation of the can packaging, business context has negative impact (-0.32) on origin of wine. In the case of a high evaluation, it is conviviality that have negative impact (-0.6) on origin. With can packaging, the origin is less important criteria when the context of meal experience is important. Perhaps, consumer wants to find basic wine or wine table with such packaging.

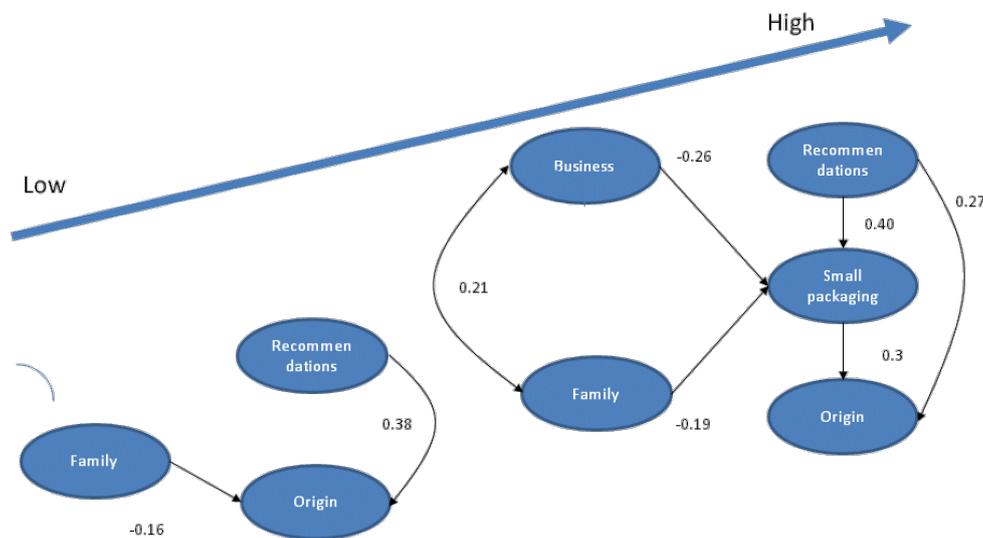
Finally, we verify the invariance of the effect of the pet bottle in Table 4. The configural invariance is verified (0.01) and only the differences concerning structural link are significant. All the indicators respect partially their criteria of validity (χ^2 105.061, df 78, $p=0.02$, gfi 0.96, $agfi$ 0.91, nfi 0.85, cfi

0.98 and rmsea 0.02). We present each structural coefficient between meal experience and wine choice for each level of packaging evaluation – see Figure 4. In low packaging evaluation as compared with high packaging evaluation, consumers need less recommendations concerning origin (Low 0.38 versus High 0.27). With a context of low evaluation of the PET packaging, More the family context is important, less the origin of wine is important (-0.16). In the case of a high evaluation, it is business and family context that have negative impact (-0.26 for business and -0.19 for family) on small packaging. When the meal experience is family or business oriented, the PET is not perceived as classical bottle but as a small bottle because of their weight. The PET could be associated with more valuable wine.

Table 4: Invariance validity – effect of the PET Bottle on the link between meal experience and wine choice criteria

effect pet bottle	chi2	df	Δchi²	Δdf	sign	RMSEA	CFI
	105.06	78				0.02	0.98
configural invariance	165.90	117	60.84	39	0.01	0.03	0.93
error measurement invariance	122.04	93	16.98	15	0.32	0.02	0.97
metric invariance	113.55	84	8.49	6	0.20	0.03	0.96
structural invariance	125.92	90	20.86	12	0.05	0.03	0.96
variance factor invariance	109.47	81	4.41	3	0.22	0.02	0.97
covariance invariance	107.87	81	2.80	3	0.42	0.02	0.98

Figure 4: effect of the PET Bottle on the link between meal experience and wine choice criteria



Discussion and Conclusion

This research shows that consumer packaging impressions have a moderating effect over the wine choice, in the context of the overall meal experience. This result implies that we should not analyze a wine without considering the congruency between the packaging and the associated event. First, the model shows that meal experience has a negative impact on wine choice if the atmosphere is not convivial and they need recommendations to reduce the risk to make the wrong choice in terms of the origin of wine and the use of packaging perceived as smallest shape. Secondly, for risky packaging (Can or PET), the impact on wine choice is different. The impact of the meal experience on wine

choice is more when the packaging is well evaluated. Also, the guests need recommendations and it concerns both small packaging and origin of the wine.

For can packaging, the recommendations are more salient with small packaging when it is valuable. When it is well evaluated, the recommendations concern more the origin of wine. The guests consider that the low quality wine is associated with the can packaging and to have a convivial experience, they need basic wine with this type of packaging. For the PET packaging, the recommendations concerning the wine origin is less important when the packaging is well considered than when it is not well evaluated. In specific context, guests don't grant drinking wine in such packaging because of the image reflected. But in unspecific context, they could drink more valuable wine with this packaging.

Regarding managerial implications on the type of restaurants, fast-food or restaurant chain should accept more easily the nontraditional packaging like the PET bottle and the can. For the producer side, it could be associate the packaging with the meal experience and the type of restaurant. The PET could be used in convivial context without any risk to dislike the others guest. So the PET packaging could use to discover a simple wine in an informal context. For the can packaging, the wine will be basic in regular occasions or occasions without pressure. Perhaps can is more associated with simplicity and informal occasion in funny meal experience. Future research will also look into the wine choice as it relates more closely to the regular or extraordinary character of the meal experience. In this research, you don't associate packaging with restaurant's style. "Brasseries" should be more easily able to serve wine in a bottle, glass or carafe. For the classical restaurants, the bottle seems to dominate. Hence, packaging is more or less congruent with the type of restaurant and it could be interesting in future research to analyze the moderating effect of the congruency (restaurant-packaging) on the wine choice.

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To Cork or Not To Cork: Wine Consumption Situations and the Appropriateness of Bottle Closures

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Abstract

Purpose - This study examined influences on consumers' perceived appropriateness of screw caps versus corks as wine closures. The influences tested were consumer expertise, wine type and consumption situation.

Design/methodology/approach – Subjects with different levels of wine expertise were recruited. A full factorial set of conditions was employed, including two levels of closures (corks and caps), three types of wine (red, white and sparkling) and twelve consumption situations, resulting in 72 combinations. The stimuli included six short videos that showed the opening of wine bottles. Respondents were asked to assess the appropriateness of each closure type regarding that type of wine in various consumption situations.

Findings - The study investigated the influences of wine consumer expertise, types of wine and various consumption situations on the perceived appropriateness of screw caps versus corks. It was found that all of these proposed influences were significant, as were interactions among them. The study also found that consumers with higher levels of expertise generally perceive corks to be more appropriate, while consumers with lower levels of expertise appear to be more sensitive to package closures when judging their appropriateness in consumption situations. Types of wine had less influence on appropriateness scores than either consumption situations or consumer expertise.

Key words: closures, corks, screw caps, wine expertise, consumption situations

INTRODUCTION

There are many traditions regarding how wine is presented for consumption. These traditions are often powerful influences on what is perceived as appropriate in specific consumption situations. But the importance of such traditions varies among consumer segments. As an example, corks are a classic type of closure for wine packages and are often associated with better quality wine (Barber & Almanza, 2007; Marin, Jorgensen & Kennedy, 2007; Marin & Durham, 2007; Wilson, 2009). In recent years, metal screw top closures have provided some significant practical advantages including avoiding cork taint (Murray & Lockshin, 1997; Barber & Almanza, 2007). Despite those advantages, some consumers continue to prefer the romance and drama of opening cork closures and many consumers have proven to be resistant to non-traditional forms of packaging (Atkin et al. 2006). The study presented here investigates consumer attitudes regarding different closure types (specifically, corks and caps) and the influences of consumption situations, personal characteristics and types of wine on those attitudes. This study builds on previous research by providing a new conceptual model and presenting new data to examine wine consumers' changing perceptions of wine closures.

2. THEORY

2.1. Person-Product-Situation Frameworks and the Elaboration-Likelihood Model

Marketing literature reports a rich history of research regarding the interactions among the attributes of persons, products and situations. For instance, person attributes and situation attributes have long been used as bases for product-market segmentation. Sandell (1968) and Belk (1974) investigated the interaction of product attributes with situations. Dubow (1982), Dickson (1982), Green and Rao (1972) investigated person-product-situation interactions. A major conundrum in this stream of research has been organizing the vast number of potential interactions among (and within) the various attributes of persons, products and situations. Despite the appeal of developing generalizable frameworks (taxonomies) that capture all of those combinations, the "fickle nature of situation research" (Quester & Smart 1998, p. 221) has made it difficult. Indeed, the endeavor has been labeled "completely futile" by Hornik (1982, p. 46). The most practical approach has been to limit the range of attributes that are considered at one time, thus developing research that is specific to some portion of the person-product-situation domain. This approach produces a loss of generalizability, but a gain in do-ability and use-ability. Belk (1974) recommends that product specificity is the best approach to limiting the range of person-product-situation frameworks. Following this advice, we narrowed our focus in a number of ways, starting with the selection of wine as the context for this research.

Additionally, we chose to incorporate the Elaboration-Likelihood Model (ELM) into the person-product-situation framework. The ELM focuses on the inclination of a person to make decisions by processing information through either "central" or "peripheral" processing "routes" (Petty & Cacioppo, 1986). The central and peripheral routes of persuasion are two points along a continuum ranging from high to low likelihood of elaboration, where the central route represents the process of high elaboration likelihood and the peripheral route represents the process of low elaboration likelihood (Cacioppo & Petty, 1986). The ELM indicates that consumers with higher levels of involvement and knowledge regarding the product category are more likely to use central processing routes. With that in mind, the personal attribute that we selected is the consumer's level of expertise/involvement regarding wine. We chose two product attributes, one intrinsic and one extrinsic. Lastly, from existing wine research literature we selected twelve consumption situations that have been helpful in

understanding wine consumption behavior. Full descriptions of the attributes for each of these person-product-situation categories are presented below.

2.2. Personal Attributes

Many personal attributes have been employed in wine related research. In a classic consumer information processing article, Alba and Hutchinson (1987) divided consumers into “expert” and “novice” groups based on their levels of knowledge. These two groups used different strategies for search, understanding and evaluation of products. The groups differ in their cognitive capabilities; experts can process information in more detail. The groups also differ in the kinds of information that they use; experts tend to use product-related information regarding features and functionality where non-experts tend to use price, brand and other more peripheral cues. There are also differences in evaluation approach; the novice is more holistic where experts are more analytic.

Alba and Hutchinson (1987) found that consumer knowledge has two parts, expertise and product familiarity. Familiarity is the number of product-category related experiences that a consumer has accumulated. Familiarity positively influences expertise by improving a consumer’s ability to process product-related information and the speed with which they are able to process it. We further argue that expertise is related to involvement in the wine product category. A consumer’s level of involvement positively influences the likelihood that the consumer will choose to have experiences with the product category, which in turn leads to greater familiarity, greater knowledge and therefore, greater expertise. Thus, for the purposes of this study, five indicators of consumer expertise were chosen: wine involvement, purchase frequency, consumption frequency, wine familiarity (years of experience with wine), and wine knowledge.

Consumer expertise is particularly important for wine market research because wine markets present consumers with a vast number of heterogeneous products. For example, for 2012 just in the U.S. market alone, 134,000 labels for domestic wines were approved (U.S. Alcohol and Tobacco Tax and Trade Bureau, 2012). In addition to this huge assortment of labels, wine consumers are faced with a large array of information regarding grape varieties, appellations, vintages, wine quality ratings, etc. In such an intensely fragmented market, a wine consumer’s level of expertise can significantly influence their decision-making processes and ultimately their choices.

The significance of consumer expertise in the wine market has been studied by a number of researchers (e.g., Aurier & Ngobo, 1999; Dodd, Laverie, Wilcox, & Duhan, 2005; Gluckman, 1990; Mueller, Francis, & Lockshin, 2008; Spawton, 1991; Viot, 2012). Expert and novice consumers differ in the amount, content and organization of their knowledge about wine, leading them to choose their wine differently because they value different attributes in wine. For instance, Viot (2012) found that expert consumers attach more value to the origin of wine, the vintage, the official ranking and the brand name than non-expert consumers. This list was very similar to previously identified product characteristics favored by expert wine consumers (Aurier & Ngobo, 1999). These findings are consistent with ELM predictions that expert wine consumers will engage in high elaboration of these product characteristics through the central processing route. Novices, on the other hand, base their choice of wine above all on the price (Viot, 2012), as well as some product characteristics, such as vintage, color, and the design of the bottle (Aurier & Ngobo, 1999), which are generally peripheral product cues.

Wine is a complex product with a multitude of attributes. In order to target various market segments effectively, it is imperative for the industry to know what product characteristics are favored by different groups of consumers. Since wine experts and novices are known to differ in their use of other product characteristics, it is reasonable that their decision-making process may also differ regarding wine bottle closures and consumption situations. Therefore, the first research proposition is:

P₁: Expert and novice consumers will differ in their assessments of the appropriateness of cork versus screw cap wine closures.

2.3. Product Attributes

A variety of wine attributes have been used in consumer research. For instance, grape types, wine style, price and wine origin are some of the attributes that have been commonly researched (Quester & Smart 1998). Wine product attributes are often classified as intrinsic or extrinsic (Hall et al., 2001). Intrinsic attributes are inherent to the wine itself (examples include the level of alcohol or the varieties and blends of grapes), where extrinsic attributes (such as price and packaging), can be modified without changing the wine. As previously stated, intrinsic attributes are more likely to be processed along the central route (high elaboration). We chose wine type (red, white and sparkling) as an intrinsic product attribute and closure type (corks versus screw caps) as an extrinsic attribute. It is expected that some important interactions between these types of attributes will occur. For instance, we expect that corks may be seen as more appropriate for red wines as a result of their association with food consumption traditions (“pairings”) and traditions of aging fine red wines.

Consumer perceptions of alternative closures have received attention from wine marketing researchers (Murray & Lockshin, 1997; Rochi & Stefani, 2005; Barber, Meager, & Kolyesnikova, 2008; Lopes et al., 2011). However, perception and acceptance of alternative closures continues to evolve. For instance, Barber and Almanza (2007) noted that consumers perceive corks as an indicator of higher quality wine and screw caps as an indication of inexpensive wine. Yet, within the last decade, the use of screw caps has become pervasive in some markets and is making inroads even in markets where there were once negative associations between screw caps and wine quality (Halstead, 2011). Thus we make the following research proposition regarding wine types and closure types:

P₂: The type of wine will influence the perceived level of appropriateness of wine closures both directly and indirectly through its influence on the relationship between expertise and perceived appropriateness.

2.4. Consumption Situations

The last of the three broad categories of influence on consumer decision-making is the situations in which the product is consumed (Belk, 1974). Situational attributes can be grouped into physical characteristics (e.g., weather, terrain and technology), social contexts (e.g., family, reference groups and norms) and tasks or purposes (e.g., transportation, nutrition and leisure) (Fennell, 1978). Often the attributes that are most relevant for each particular decision are determined by interactions among the attributes themselves. For instance, water skiing is a leisure activity (purpose) that requires a powerboat (technology), smooth warm water (weather and terrain) and a boat captain who attends to and communicates with the skier (social interaction). Similarly, wine consumption situations can be grouped into the same categories - physical characteristics (e.g., indoors/outdoors, winter/summer), social contexts (e.g., alone or with friends, family or work colleagues), and

tasks or purposes (e.g., celebrations, meals). Also, situational attributes often interact with intra-individual and product attributes, also referred to as “person-within-situation interaction” (Quester & Smart, 1998). For instance, the relevance of a product’s origin identity (e.g., country-of-origin) is dependent on the product category and the consumer’s knowledge of that category.

In this research, twelve wine consumption situations were adapted from the wine marketing literature (Hall & Lockshin, 2000; Hall, Lockshin & O’Mahony 2007; Thach 2011). The following descriptions of situations were employed:

Going out with friends	Dinner party with friends	Attending a dinner party
Celebration-wedding	Holiday events	Dinner for two
Dinner party at home	Casual everyday use	Casual get together
Picnics	Gift giving	Restaurant with clients

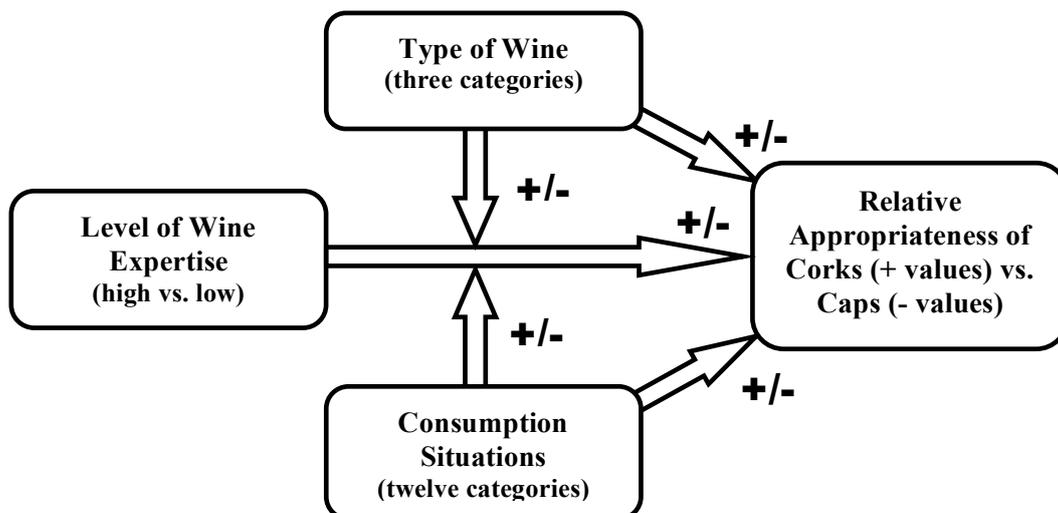
These situations represent many of the dimensions that have been put forth in the literature as relevant to wine consumption. For instance, Thach (2011) identified meal and non-meal occasions, as well as other occasions such as graduations and vacations (Fennell’s tasks or purposes). Orth (2006) identified consumption by one’s self, hosting friends and gifts for an employer (Fennell’s social context). However, before searching for indications of those dimensions the more basic research proposition is:

P₃: Consumption situations will influence the perceived appropriateness of wine closures directly and also indirectly by influencing the relationship between expertise and perceived appropriateness.

2.5. Model Summary

In summary, the general motivation for this research is to deepen our understanding of consumer attitudes toward wine closures. The propositions are about the following influences: (1) the consumer’s level of expertise regarding the wine product category, (2) the type of wine and (3) the consumption situations. Figure 1 presents a model of these propositions.

Figure 1: Influences on Relative Appropriateness of Wine Bottle Closures



3. METHOD

3.1. Study Design

This study employed a full factorial set of conditions, including two levels of closures (corks and caps), three types of wine (red, white and sparkling) and twelve situations (described above) resulting in 72 combinations. The stimuli included six short videos that were imbedded in pairs (cork and cap) at appropriate points to provide a basis for the responses. The videos showed the opening of wine bottles with three types of wine (red, white & sparkling) and two types of closures (corks and screw tops). Each pair of cork and cap videos used the same type of wine. The value of the videos to the study is that they focused the respondent's attention on the appropriate type of wine and they also provided a visual and audio experience of the differences between the openings of each type of closure. Please see Figure 2 for a screen shot of a video. After each pair of videos was viewed, the respondents were asked to assess the appropriateness of each closure type regarding that type of wine in each of the twelve situations described above. This was repeated for each type of wine.



Figure 2: Screen Shot of Video

3.2. Measurement and Scaling

The dependent variable was the relative appropriateness of either corks or caps. The appropriateness scores were collected using semantic differential scales ranging from “very inappropriate” (1) to “very appropriate” (5) for corks and separately for caps for each of the twelve consumption situations and each of the 3 wine types, from each respondent who was in either the expert or novice group (the grouping of the subjects is discussed in the Data Collection and Results sections below). Subsequently, each pair of cork and cap assessments was then converted to a difference score indicating at one extreme that corks were much more appropriate (+4), at the other extreme that caps were more appropriate (-4) and indicating in the middle that there was no difference in the levels of appropriateness (0). Additionally, the questionnaire included assessments of wine involvement adapted from Slama and Tashchian (1987), wine knowledge adapted from Smith and Park (1992), and wine familiarity (experience with wine and purchase/consumption behavior) to be used to confirm the expertise grouping of the respondents. Please see the appendix for the specific questionnaire items.

3.3. Data Collection

The data were collected via an online questionnaire. The subjects were selected to represent two types of consumers, presumed to differ in their levels of expertise about wine. The high expertise sample was sought among people who self-identified as interested and involved in wine by subscribing to wine related publications and/or being members of wine related interest groups. The low expertise sample was sought among undergraduate students attending a large university in the southwest United States.

3.4. Analysis

The frequencies of the responses were analyzed first to identify out-of-range values (outliers). None was found. Additionally, fewer than 10% of the values were missing for any of the variables, so in subsequent analysis mean-substitution was applied to variables with missing values. Each respondent provided appropriateness scores (converted to relative appropriateness scores between corks and screw caps) for each of the twelve combinations. As a result, the analysis was done using general linear models with repeated measures. SPSS was used to execute this analysis.

4. RESULTS

4.1. Sample Description and Confirmation of Expertise Groups

Two hundred and forty four responses were obtained, of which twenty eight were unusable for various reasons including being incomplete to the extent that some were nearly blank. One hundred and thirty five responses were from the presumed low expertise group and eighty two were from the presumed high expertise group for a total of two hundred and seventeen. An analysis of the responses confirmed that the expertise groups were significantly different on a variety of indicators that have been used by Alba and Hutchinson (1987) and other researchers to discriminate between experts and novices.

Table 1: Correlations

Indicators of Expertise	Purchase Frequency	Consume Frequency	Experience	Involvement
Consume Freq.	.754**			
Experience	.386**	.620**		
Involvement	.691**	.749**	.561**	
Knowledge	.659**	.679**	.533**	.764**

Table 2: Logistic Regression

Classification Accuracy	Predicted		
	Expert	Novice	Percent Correct
Presumed Expert	71	3	95.9
Presumed Novice	3	112	97.4
Overall			96.8

The accuracy of the respondents' grouping by presumed expertise was confirmed by examining five indicators of expertise: purchase frequency, consumption frequency, number years of experience, involvement with wine and knowledge. The means of these indicators for each group were found to be significantly different from one another in the directions that confirm the expertise grouping (e.g., experts have higher levels of knowledge, experience, involvement, etc.). The correlations among the indicators are all positive and significant (see Table 1) providing some indication of convergent validity. A logistic regression analysis was 96.8 percent accurate in predicting the expertise groups using these expertise indicators (see Table 2). Thus the grouping of respondents by expertise was found to be successful.

4.2. Direct Tests of Research Propositions

Propositions 1, 2 and 3 address the relative influence of wine type, level of expertise and consumption situation on the appropriateness of either cork closures or screw caps (the dependent variable). Level of expertise is a between-subjects factor; the others are within-subjects factors (the repeated measures). The main effects and interaction terms are all significant (see Table 3) providing support for all three research propositions.

Table 3: GLM Repeated Measures Main Effects and Interactions (tests of P₁, P₂ & P₃)

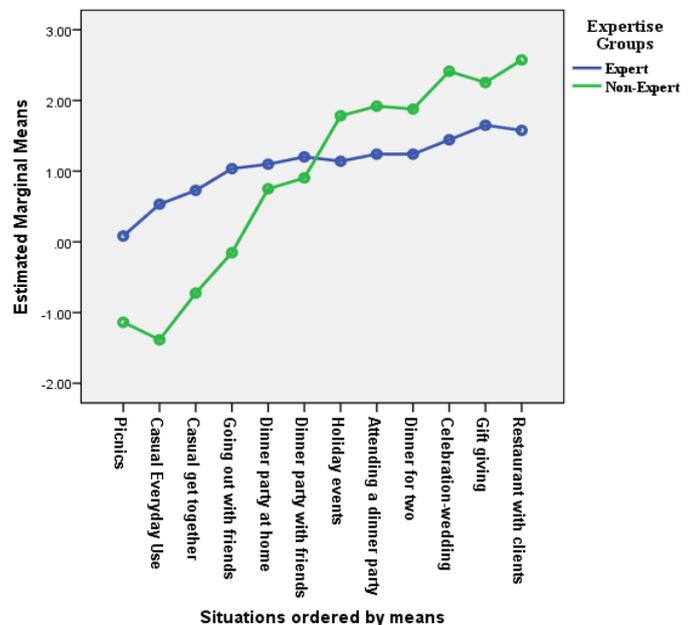
Measure: Relative Appropriateness of Corks (+) or Caps (-)	Type III Sum of Squares	df	Mean Square	F	Sig.
WineType	220.60	2	110.30	10.89	.00
WineType * ExpGrp	277.24	2	138.62	13.69	.00
Error (WineType)	4354.35	430	10.13		
ConsumeSituation	5797.37	11	527.03	148.17	.00
ConsumeSituation * ExpGrp	1863.76	11	169.43	47.64	.00
Error (ConsumeSituation)	8411.99	2365	3.56		
WineType * ConsumeSituation	101.17	22	4.60	4.31	.00
WineType * ConsumeSituation * ExpGrp	38.52	22	1.75	1.64	.03
Error (WineType*ConsumeSituation)	5049.00	4730	1.07		

The means (from highest to lowest) and significance levels for the main effects are presented below (see Table 4). The means for all of the items except one (“casual get together”) are significantly different from zero. All but two of the remaining values are positive (corks more appropriate). The differences in the means for the two expertise groups indicate that in general experts view corks as slightly more appropriate. The means for types of wines show that corks are viewed as more appropriate for red wines than for white wines, with sparkling wines falling between. These mean scores also indicate a generally positive bias toward corks among all respondents. However, this is not the case for all consumption situations. Screw caps are more appropriate (negative means) for “casual everyday use” and “picnics”, while corks and caps are equally appropriate (zero difference) for a “casual get together”. Additionally, the largest values for relative appropriateness occur in half of the consumption situations (see Table 4). Figure 3 presents a plot of the relative appropriateness by expertise groups from the repeated measures analysis presented above in Table 3.

Table 4: Relative Appropriateness of Corks (+) or Caps (-)
** not = 0 at 0.05 or less*

		Mean
Expertise	High	1.081*
	Low	0.923*
Wine Type	Red	1.166*
	Sparkling	1.077*
	White	0.763*
Consumption Situation	Restaurant with clients	2.075*
	Gift giving	1.952*
	Celebration-wedding	1.928*
	Dinner for two	1.580*
	Attending a dinner party	1.560*
	Holiday events	1.462*
	Dinner party with friends	1.053*
	Dinner party at home	0.924*
	Going out with friends	0.442*
	Casual get together	0.001
	Casual everyday use	-0.426*
	Picnics	-0.527*

Figure 3: Consumption Situations by Expertise Groups



5. DISCUSSION

Among the person-product-situation influences on perceived appropriateness of closure types, the differences between expertise groups and among consumption situations are the most dramatic. Indeed, the results are consistent with the findings of Barber and Almanza (2007) that corks are often perceived as an indicator of higher quality wines. Wine type has less influence on appropriateness than consumption situation. Corks were found to be generally viewed as more appropriate for red wines. This is consistent with our expectation based on the association of corks with food consumption and wine aging traditions. Figure 3 (above) reveals that novice consumers have much greater variability in their assessments of appropriateness among situations than experts. This may indicate that non-experts rely more on package type when judging appropriateness in various situations. These findings are consistent with the elaboration-likelihood model (ELM) of consumer decision-making, which argues that those who are less able to judge the intrinsic attributes of a product are more likely to use peripheral attributes (e.g., closure types) which they can easily understand.

The study also found that some consumption situations have similarities in both their scores and in their content. For instance, in Table 4 we see that the three highest scores (indicating corks are much more appropriate) are for the “restaurant with client”, the “gift giving” and the “celebration-wedding” situations. Similarly, the lowest scores (indicating either that screw caps are more appropriate or that there is no difference) are reported for the “picnics”, the “casual everyday use”, and the “casual get together”. There appears to be a formality/informality dimension in these situations. Most of the remaining situations involve the word “dinner” and may indicate a situational dimension related to the “centrality” of food as a reason for the consumption occasion. These characteristics are consistent with the observations of Marin, et al (2007), Thach (2011) and Barber et al. (2008).

Furthermore, an exploratory factor analysis of the consumption situations (using the relative appropriateness scores) was performed to more explicitly investigate the underlying dimensions of the situational contexts. The analysis was performed across consumption situations and separately for the combinations of three wine types and two expertise groups (six combinations). The analysis of these groups included Varimax (orthogonal) rotations of the components. The analysis followed standard procedures regarding issues such as cross loadings. These were applied across all six combinations before judgments were made regarding the removal of any item. Four items were removed providing interpretable solutions for five of the six combinations. The sixth combination (expert group and sparkling wine) produced only one component. The other five solutions are presented below. Table 5 contains the solutions for the non-expert group and Table 6 those for the expert group.

The solutions for non-experts explain over 60 percent of the total variance in each case. There is consistency in the patterns; the same items loaded together in each case. This indicates that wine type has little influence on the factor solutions for the non-expert group. Interpreting the components generated in factor analysis is usually “an art” because many items and their combinations can be multidimensional. In this case, the consistency of the patterns simplifies the interpretation considerably. The differences in the two factors across the combinations appear to be predominantly related to the level of formality in the consumption situation. In all three cases Component #1 could be labeled “Low Formality” and Component #2 could be labeled “High Formality.” This is consistent Orth’s report (2006) of a formal/informal dimension for wine consumption situations and Fennell’s social context (1978). Thus, for this novice group, corks are clearly and strongly perceived as more appropriate for more formal consumption situations.

Table 5: Rotated Factor Solutions for Non-Expert Group

Rotated Component Matrix Total Variance Explained = 60.3%			Rotated Component Matrix Total Variance Explained = 62.4%			Rotated Component Matrix Total Variance Explained = 68.9%		
Non-Experts & White Wine	Component		Non-Experts & Red Wine	Component		Non-Experts & Sparkling Wine	Component	
	1	2		1	2		1	2
Attending dinner party	.808		Restaurant with clients	.822		Celebration-wedding	.891	
Restaurant with clients	.779		Gift giving	.805		Gift giving	.849	
Celebration-wedding	.728		Celebration-wedding	.726		Restaurant with clients	.836	
Gift giving	.668		Attending dinner party	.649		Attending dinner party	.758	
Casual everyday use		.856	Picnics		.819	Casual everyday use		.882
Dinner party at home	.741		Casual everyday use		.800	Picnics		.850
Picnics		.687	Dinner party with friends		.669	Dinner party at home		.703
Dinner party with friends		.569	Dinner party at home		.669	Dinner party with friends		.586

Table 6 presents the solutions for white and red wine for the expert group. These solutions explain a higher percentage of the total variance than those for the non-expert group; however they are less easily interpreted. The patterns are not as consistent as those from the non-expert group. In the case of the white wine, there is still a formal/informal aspect of the differences between the components. For the red wines, one could infer that the centrality of food to the consumption situation may also explain some of the difference (a finding that is consistent with those reported by Thach (2011).

Table 6: Factor Solutions for Expert Group

Rotated Component Matrix Total Variance Explained = 79.6%			Rotated Component Matrix Total Variance Explained = 87.3%		
Experts & White Wine	Component		Experts & Red Wine	Component	
	1	2		1	2
P F H Gift giving	.936		P F H Gift giving	.952	
C M H Attending dinner party	.885		C M H Attending dinner party	.909	
C F H Restaurant with clients	.864		C M L Dinner party with friends	.891	
C M L Dinner party with friends	.845		C F H Restaurant with clients	.888	
P M H Celebration-wedding	.769		C M L Dinner party at home	.867	
P M L Picnics		.894	P M H Celebration-wedding	.852	
P F L Casual everyday use		.781	P M L Picnics		.932
C M L Dinner party at home		.654	P F L Casual everyday use		.864

6. LIMITATIONS AND FUTURE RESEARCH

This study has a number of limitations. First, since wine consumption traditions are often deeply embedded in regional or local cultures, and since this study was conducted in only one location, it may be risky to generalize these results to different cultures. We believe that expertise and intrinsic product characteristics probably influence judgments about wine consumption in all cultures but that the cultural meaning of corks and caps in consumption situations may vary considerably. That underscores the importance of investigations of this issue in other cultures because, as Atkin, et al. (2006) noted, there are great differences in the acceptability of screw caps in different countries. Additionally, the cultural meaning associated with corks or screw caps has changed over time in many locations, underscoring the need to replicate studies such as this one to track those changes. These differences could impact consumption behavior and should impact the marketing strategies of wineries and retailers. An additional limitation is that the respondents were asked to project themselves into various consumption situations which some of them may never have experienced. However, this is an issue with all projective techniques employed data collection, not just this study.

7. CONCLUSION

This study found support for the person-product-situation framework as an approach to understanding wine consumers. The Elaboration Likelihood Model of consumer information processing also provided valuable insights in understanding the perceived appropriateness of screw cap closures. Using this combined framework, we found that all of the proposed influences were significant and that there were also significant interaction effects among them. This confirms the notion that research on consumption situations is complex and idiosyncratic. It also supports Halstead's assertion in his review of screw caps (2011) that it was not really the case of either corks or screw caps eventually taking over as the only type of wine closure. Instead, the use of corks and screw caps was evolving to meet the needs of different types of wine, consumption occasions and consumer differences.

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APPENDIX

Involvement (7 point agree-disagree scale, averaged across the 4 items)

- I do not know much about wine.
- I am not familiar with many brands of wine.
- My choice of wine is relevant to my self-image.
- Wine is relevant to my values or goals in life.

Knowledge (7 point agree-disagree scale, averaged across the 4 items)

- I feel very knowledgeable about wine.
- If a friend asked me about wine, I could give them advice about different brands.
- If I had to purchase wine today, I would need to gather very little information in order to make wise decision.
- I feel very confident about my ability to tell the difference in quality among different brands of wine

How often do you purchase wine?

(5 point scale from “Almost never” to “Multiple times per week”)

For each of the following occasions, choose the level of appropriateness for using (insert wine type) **wine with** (corks or screw caps). (5 point scale for each)

- Going out with friends
- Dinner party with friends
- Attending dinner party
- Celebration-wedding
- Holiday Events
- Dinner for two
- Dinner party at home
- Casual everyday use
- Casual get together
- Picnics
- Gift giving
- Restaurant with clients

On average, how often do you consume wine?

(5 point scale from “Less than once a month” to “Daily”)

At what age did you first start drinking wine (an entire drink, not just a sip)?

What year were you born?

Years of Experience = 2013 – birth year – age started drinking wine

Institutional Pressures and Relationships in the Wine Supply Chain

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Abstract

◦*Purpose: Business has recognized the importance of effective supply chain relationship management to assuring the firm's access to critical resources. However, prior research assumes that managers are free to choose suitable trading partners. This assumption overlooks the influence of the institutional environment, which shapes perceived legitimacy of organizations within a social context and, thereby, constrains freedom of choice. Therefore the purpose of this research is to examine the effects of the institutional environment in managing supply chain relationships.*

◦*Design/methodology/approach: Using institutional theory and the resource-based view, we develop a model and hypotheses of the impact of institutional pressures on supply chain relationships. The model is tested using survey responses from 309 producers in the U.S. wine industry, an industry that demonstrates regulatory as well as competitive pressures.*

◦*Findings: Findings show that institutional pressures do impact supply chain relationships - regulatory pressure inhibits the effects of relational drivers on coordination, while competitive pressure facilitates the effectiveness of some drivers and inhibits others.*

◦*Practical implications: Results demonstrate that the institutional environment has significant consequences for managing supply chain relationships. Firms should recognize that the drivers which typically result in positive relationship outcomes may respond differently in the presence of institutional constraints. Hence, managers are advised to identify and evaluate the types and levels of institutional pressures that may impinge on their supply chain relationships and adjust behaviors to avoid suboptimal outcomes.*

Key words: Supply chain relationships; institutional pressures; global wine industry; survey

1. INTRODUCTION

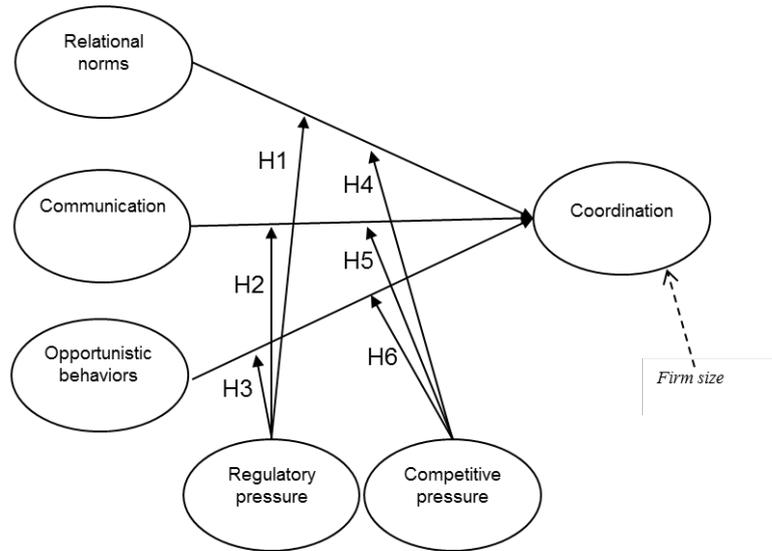
In the interdependent global business environment of the 21st century, firms are increasingly required to leverage resources and capabilities of trading partners in order to compete. Hence, long-term collaborative relationships with supply chain partners are important to assure the efficiency, flexibility, and responsiveness necessary for improved operational performance (Narasimhan et al., 2009; Nyaga et al., 2010). However, building and sustaining such relationships have proven difficult, as research reveals that the most underdeveloped area of supply chain strategy is assessing necessary investments to develop and maintain long-term relationships (Hill et al., 2009).

Over the past two decades, scholars have proposed several theoretical approaches to understand the key determinants of successful relationship performance (e.g., Ganesan, 1994; Morgan and Hunt, 1994; Krause et al., 2007; Palmatier et al., 2007; Autry and Golicic, 2010). Implicit in these prescriptive models is the assumption that firms are free to choose appropriate trading partners. However, the presumption of freedom of choice does not account for “the ubiquitous influence of the institutional environment” (Grewal and Dharwadkar, 2002, p. 82), which encompasses the social structures and mechanisms of influence that determine the legitimacy of organizations in a particular societal context (North, 1990). The constraints imposed by institutions have significant consequences for managing supply chain relationships, which stem from firms being compelled to adjust their behaviors to institutions, rather than vice versa (Grewal and Dharwadkar, 2002). Hence, institutional pressures can drive firms to maintain supply chain relationships that are suboptimal for achieving operational performance objectives (Bello et al., 2004; Yaibuathet, et al., 2008). Managers must balance conflicting goals to operate efficiently and effectively while complying with various institutional constraints (Grewal and Dharwadkar, 2002; Ketokivi and Schroeder, 2004).

It is through the lens of institutional theory that this research addresses the question, “What is the effect of constrained choice imposed by the institutional environment in managing supply chain relationships?” An example of constrained choice is provided in the wine industry, where government regulations require producers to sell through certain distributors in order to reach consumers in various regions of the United States. Our contention is that institutional theory offers a useful theoretical perspective for examining the effects of constrained choice, as it provides a more complete understanding of supply chain behavior by incorporating consideration of the social context inherent in supply chain management strategies (Scott, 2001; Rogers et al., 2007; Carbone and Moatti, 2011). While recent supply chain research demonstrates the importance of relational elements to promote coordination between supply chain members, we found no studies that incorporate institutional factors into theoretical models.

The purpose of this research is to address this gap in the literature by examining the effects of constraints imposed by the institutional environment on supply chain relationships. Specifically, we investigate moderating effects of regulatory and competitive pressures on the linkages between relational drivers (i.e., relational norms, communication and opportunistic behavior) and the relationship outcome of coordination (see Figure 1). To test our theoretical model, we develop new measures for regulatory pressure and competitive pressure and utilize the context of the U.S. wine industry, where there are thousands of producers competing for a share of global demand and a government-mandated three-tier distribution system has been in place since the repeal of Prohibition in 1933.

Figure 1: Conceptual framework



2. THEORETICAL BACKGROUND AND HYPOTHESES

As supply chain exchanges move from transactional to relational, firms seek to leverage resources that promote relational coordination. However, supply chain relationships are embedded in an external institutional environment that can affect efforts to develop and maintain successful relationships. Illustrated in Figure 1, we expect that relational norms, communication, and opportunistic behaviors are relational drivers that directly impact coordination. However, exogenous factors, such as institutional pressures, are likely to exert moderating effects that can strengthen or weaken the mechanisms that promote relational outcomes.

2.1. Institutional Theory

Institutions refer to the relatively stable structures that guide expectations and determine socially acceptable actions and outcomes in society (Suchman, 1995). Something becomes “institutionalized” when it is well approved and commonly accepted without question by other organizations in the environment (Selznick, 1957). The underlying premise of institutional theory rests on the contention that organizations are social systems as well as production systems, influenced by the institutional environment and embedded in a larger social context (Granovetter, 1985; Scott, 2001). As a result, organizational choices and actions are constrained and influenced by social behaviors, norms, and values in the external environment (Selznick, 1957). In contrast to theories that emphasize economic and rational motivations to operate efficiently, institutional theory considers the imperative to achieve “social fitness” which influences organizational structure and practice (Ingram and Simons, 1995; Williams, 2009). The distinctive difference of institutional theory involves its examination of decision making in the context of social constraints inside a social reality that is created and defined by the institutional environment (DiMaggio and Powell, 1983; Scott, 2001).

The interrelated concepts of legitimacy and isomorphism are inherent to understanding institutional theory. The drive for legitimacy ensures that “the actions of an organization are desirable, proper, or appropriate within the environmentally and socially constructed system of

norms, values, beliefs, and definitions” (Suchman, 1995: p. 574). In other words, legitimate organizations benefit from perceptions of credibility, persistence, and meaningfulness, thereby increasing the possibility of survival (Meyer and Rowan, 1977; DiMaggio and Powell, 1983). The quest for legitimacy leads to homogeneity among firms as they adopt shared notions and routines (Zsidisin et al., 2005). This process of institutional homogenization generates organizational isomorphism, such that firms facing the same set of institutional pressures tend to resemble each other (Hawley, 1968; DiMaggio and Powell, 1983).

The pressure for organizations to accept the institutionalized norms that describe reality emanate from *formal constraints* – such as rules, laws, and constitutions – and *informal constraints* – such as social norms, conventions, and self-imposed codes of conduct (North, 1990). For this research, we examine the effects of formal constraints due to regulatory pressure and informal constraints arising from competitive pressure. Regulatory pressure often takes the form of governmental rules or laws, where the basis of compliance is expedience, and noncompliance can result in regulatory sanctions (Grewal and Dharwadkar, 2002). For example, in the context of the wine industry, producers are heavily regulated, and isomorphism occurs as they are forced to adhere to product specifications (e.g., labeling, alcohol content, etc.) and distribution restrictions (e.g., choice of distributors, channel constraints, licensing agreements, etc.). Producers who do not comply with these strictly enforced standards are levied heavy fines and face the threat of sales restrictions.

Competitive pressure arises as organizations seek to accrue prestige and favorable competitive positions (Perrow, 1961) and may stem from uncertainty about what constitutes efficient, effective practices (DiMaggio and Powell, 1983). Therefore, the pressure to reduce perceived risks by pursuing status-conferring legitimacy induces organizations to model themselves after competitors by adopting best practices (John et al., 2001; Grewal and Dharwadkar, 2002). A relevant example in the wine industry is the move by wine producers to partner with online retailers, such as Wine.com and Winetasting.com, to establish a presence in the growing direct-to-consumer e-commerce distribution channel (McMillan, 2012).

2.2. Supply Chain Relationships

The relational exchange paradigm suggests that collaborative relationships represent an intermediate mode of exchange to manage increasing complexity (Dwyer et al., 1987), grounded in the contention that exchange is shifting from pure market transactions to long-term relationships as an alternative to vertical integration (Cannon and Perreault, 1999). To enhance performance, firms voluntarily engage in activities that emphasize relational governance mechanisms to replace unilateral or contractual mechanisms (Williamson, 1975). In a recent study, Palmatier et al. (2007) rely on the resource-based view of the firm (RBV) to provide a comprehensive framework of factors that influence relationship performance. Interorganizational RBV research proposes that superior performance can be attributed to effective governance structures that facilitate the development of resources, knowledge, and capabilities within the relationship (Dyer and Singh, 1998).

As illustrated in Figure 1, we propose three antecedent variables determine the level of coordination. *Relational norms* refer to the shared expectations between supply chain partners regarding behavior. Because they involve expectations rather than rigid requirements, relational norms create a cooperative rather than a confrontational environment for negotiating adaptations (Cannon et al., 2000). Normative expectations comprise three dimensions: 1) *solidarity* to cooperate together versus competing against one another; 2) *mutuality* to promote joint responsibility; and 3) *flexibility* to modify the structure of the relationship as conditions

change (Palmatier et al., 2007). *Communication* refers to the amount, frequency, and quality of information shared between supply chain members (Mohr et al., 1996). Communication is critical in developing coordination because it creates an atmosphere of participative and cooperative decision-making. Additionally, there is strong support for communication strategies being instrumental in preventing operational problems (Mohr and Nevin, 1990). Finally, *opportunistic behavior*, or supply chain members' deceitful pursuit of self-interest (Williamson, 1975), has a negative influence on the development of coordination because it raises suspicion that supply chain partners are not concerned with the well-being or fairness of the relationship (Palmatier et al., 2007).

2.3. The Moderating Influence of Institutional Pressures

2.3.1 Regulatory Pressure

Regulatory pressure is a formal constraint that encompasses laws, regulations, and supporting apparatuses imposed to monitor exchange and enforce rules and sanctions (North, 1990). Regulatory bodies exert pressure for various reasons including the need to ensure stability, promote fair competition, and protect social welfare. The traditional assumption is that firms can terminate a supply chain relationship when they do not build good relationships or do not extract expected benefits. However, regulatory pressure can limit or negate a firm's free choice of supply chain partners. For wine producers, some state regulations dictate that they must sell through one specific distributor in order to have a brand presence to consumers in that state. In other states, wine producers must sell through a proscribed set of distributors.

Relational norms and communication should have a stronger impact on coordination when there is a cooperative environment without hindrance of rigid and complex rules governing the terms of exchange (Molm et al., 2000). Under pressure to conform to regulatory requirements and strict adherence to policies, the ability of firms to use relational norms and communication to demonstrate coordination becomes a much more arduous task. However, we expect that opportunistic behaviors are even more harmful to engendering coordination in supply chains relationships that are constrained by heavy regulatory pressure. Coordination is diminished when a firm feels exploited by a trading partner's opportunistic behavior. This negative reaction would be intensified when regulations and strict adherence to policy interfere with the firm's ability to take substantial measures of corrective action or to end the relationship. Therefore, we hypothesize the following:

H1: Regulatory pressure weakens the positive relationship between relational norms and coordination.

H2: Regulatory pressure weakens the positive relationship between communication and coordination.

H3: Regulatory pressure weakens the negative relationship between opportunistic behavior and coordination.

2.3.2 Competitive Pressure

Competitive pressure is an informal constraint that arises from the desire to achieve legitimacy by mimicking other organizations' structures, practices, or outputs (Williams, 2009). It differs from competitive intensity, which evaluates the level of competition faced in a particular market (Mahapatra et al., 2012). In contrast, competitive pressure arises from firms' attempts to gain legitimacy by benchmarking competitors, especially when faced with environmental uncertainty or ambiguity about solutions to problems (DiMaggio and Powell 1983). We contend that competitive pressure differs across wine producers. For instance, some wineries

offer a wide array of wine varieties, often including those not appropriate for their region, because they feel they need to offer a product line similar to competitors while others concentrate on one or two focal varieties in order to differentiate themselves.

We expect that this contextual condition will have a significant effect on supply chain relationships. Relational norms and communication facilitate joint problem-solving that can lead to greater market power and learning (Mahapatra et al., 2012). As a firm extends its knowledge base, there are coinciding legitimacy gains. Thus, as firms respond to competitive pressure and copy competitors' best practices in order to achieve legitimacy, then the mechanisms that engender coordination should have a greater impact. Furthermore, when competitive pressure limits innovative or creative choices in supply chain relationships due to mimicry, then we expect that firms are likely to work more diligently to maintain and improve the performance of current relationships to gain a competitive edge. In contrast, although opportunistic behavior hampers coordination, we expect that the negative impact is weaker as isomorphism among firms leads them to concentrate more heavily on copying best practices.

H4: Competitive pressure strengthens the positive relationship between relational norms and coordination.

H5: Competitive pressure strengthens the positive relationship between communication and coordination.

H6: Competitive pressure strengthens the negative relationship between opportunistic behavior and coordination.

3. RESEARCH METHOD

3.1. Sample

The U.S. wine industry was chosen to assure variation in the level of institutional pressures as wine distribution is highly regulated and prone to mimicry. Producers use various distribution channels to reach end consumers (e.g., through distributors, through retail customers, and direct-to-consumer through tasting rooms and ecommerce sales). An electronic survey was distributed to owners or senior-level managers at 5117 U.S. wineries using contact lists from two organizations. First, InfoUSA provided access to businesses in SIC code 208401 (Manufacturing: Wines). Because of the policy not to release email addresses, they controlled electronic distribution of the survey. To supplement the InfoUSA list of companies, email addresses for owners and top managers at wineries were purchased from Wines & Vines. The two lists were cross-referenced to ensure only one survey was sent to each company. A set of random item responses from the two samples were compared using t-tests, and no differences were found.

3.2. Survey Measures

To design our web-based survey instrument, we began with an extensive review of the literature to identify existing scales that would be appropriate for operationalization of the constructs in our model. With the exception of the institutional pressure scales, all remaining variables were taken with minor modification from the literature: relational norms (Kaufmann and Dant, 1992), communication (Palmatier et al., 2007), opportunistic behavior (John, 1984), and coordination (Omar et al., 2012). Following Churchill's (1979) approach for developing new scales for theoretical constructs, items measuring regulatory pressure and competitive pressure were derived from our review of the institutional theory literature and subsequently reviewed by practitioners and researchers. Items used in the survey and item loadings are presented in the Appendix.

The survey instrument was examined for content/face validity by a panel of three researchers familiar with the constructs and eight practitioners in the alcoholic beverage industry. The panelists assessed the survey for readability, item clarity and comprehension, ambiguity, appropriateness, and time necessary to complete. Items and format were revised as needed based on feedback from the informants. To test the robustness of the survey structure prior to distribution (Dillman, 2000), an electronic version of the final survey was completed several times by the researchers to verify that the skip and branch logic functioned appropriately.

3.3. Data Collection and Analysis

Following Dillman's (2000) total design method, personalized email messages identifying each contact person and winery by name were sent to potential key informants on both mailing lists. The message included a very brief description of the study with a hyperlink to the web-based survey, which was designed and deployed using Qualtrics. To encourage participation, the message included a goodwill gesture (an opportunity to be entered into a drawing for one of four \$100 donations to the charity of their choice) as well as a copy of the results for those who completed the survey. To verify that the contact person on the mailing list was the appropriate person to complete the survey, the recipient was instructed that "the survey should be completed by someone who has knowledge of your company's distribution relationships. If you are not the appropriate person, please forward this survey link to someone at your company who is knowledgeable about these relationships." Three waves of emails were sent approximately two weeks apart.

Because the unit of analysis in our model is the supply chain relationship, key informants were qualified as appropriate for the survey if they responded positively to an initial question asking if their products were distributed through a distributor/wholesaler and/or a business customer (i.e., retailer or restaurant). Those that sold only direct-to-consumers were thanked for their time and exited from the survey. Based on their responses, qualified informants were directed to one of three surveys designed to collect information related to the manufacturer's relationship with: (1) a distributor/wholesaler, (2) a retail or restaurant business customer, or (3) both if they indicated that their product was distributed through both channels. To avoid the inclination of participants to focus on only their most important supply chain relationships, thereby reducing variability of responses, informants were instructed to answer the questions about the distributor and/or business customer to whom they most recently shipped an order.

Of the original total of 5117 emails sent, 3598 appeared to have been received (i.e., did not generate an "undeliverable" auto-reply). Of these, 434 clicked into the survey providing an initial response rate of 12.1%. Those respondents that indicated they sold only directly to end consumers (13%) were disqualified, leaving 379 that were qualified to answer the survey questions. After eliminating responses with high levels of missing data, 309 usable records were obtained resulting in a response rate of 71.2% of those who clicked into the survey (8.6% of the original sample).

A statistical pretest of the construct items was conducted in a separate survey with a sample of 70 informants from various industries (wine, beer, and consumer packaged foods) to ensure variation in responses. These informants were located through online industry organizations; contact procedures mimicked those of the final survey. An exploratory factor analysis (EFA) of the data resulted in 8 factors explaining 75% of the variance. Four items (MUT3, COMM4, OB4, COMP4) had low loadings (below 0.50); these were removed from the instrument due to the coverage of the construct with the remaining items with the exception of the mutuality item

since there were only three items measuring this construct.

The potential for non-response bias was examined in three ways (Armstrong and Overton, 1977; Wagner and Kemmerling, 2010). Item responses from six constructs (SOL1, COMM3, OB3, COOR1, REG1, COMP3) from the initial and final waves of the two samples were compared using t-tests. No significant differences were found in the means of responses. Finally, the demographics from the sample were found to be representative when compared with overall U.S. wine industry statistics. Therefore, we concluded that non-response bias was not a threat to the validity of findings.

Since surveys were completed by a single key informant within each company, procedures were taken to protect against common method variance (Podsakoff et al., 2003). Clear and concise survey items were created and reviewed by industry experts. Informants' anonymity was protected so they could feel comfortable answering questions honestly. Different response formats and scale endpoints were used for the independent and dependent variables. Harman's one-factor analysis demonstrated that no single factor accounted for more than 50% of the variance in the data; the first factor in an un-rotated factor analysis accounted for 33.8%. A theoretically unrelated marker variable (environmental uncertainty) was included in the survey and tested as a predictor (Malhotra et al., 2006). Although significantly correlated with solidarity (.143), this variable was not significantly correlated with the criterion variable. The criterion correlation (coordination at -0.037) was partialled out, and the corrected variable correlations retained their practical significance in terms of a meaningful amount of variance explained. Thus, common method bias should not be a threat to the results.

4. RESULTS

4.1. Sample Demographics

Our U.S. wine industry sample was representative of the population in that it primarily consisted of smaller firms (71% had revenues less than \$1 million and 73% had 10 employees or less) from the major wine producing states of California, Oregon, and Washington (58% with 29 other states contributing to the remainder). The informants were owners of the winery (79%) or senior managers, and 95 percent had worked for the winery for at least three years. Additionally, most had been engaged with the target distributor or business customer about whom they answered questions for a minimum of three years. All indicators provided confidence that the informants were knowledgeable of the industry as well as their companies' operations and performance. The majority of the companies had been in business for at least 6 years (72%) with 42 percent operating a minimum of 11 years – long enough to have established relationships with distributors or business customers.

4.2. Measurement Model

We employed structural equation modeling (SEM) using maximum likelihood estimation to evaluate the measurement and structural models and test the hypotheses. The initial, unpurified measurement model retained all items from the pretest evaluation and was a reasonable fit with the data ($\chi^2=1112$, $df = 459$, $RMSEA = .068$, $CFI = .894$). However, several measurement items that were problematic in the pretest analysis continued to perform poorly. Six items with high cross-loadings on other constructs (SOL3, FLEX3, OB1, OB2, REG2, and COMP1) were removed to ensure discriminant validity. Item loadings were significant at $p < .01$ for all retained items, and all but three loaded on their constructs with path weights greater than 0.70. Two items on existing scales adapted for this study (SOL2 and COOR1) loaded at less than

.70, but were retained for theoretical reasons. One item on a scale developed for this study (REG1) exhibited a low loading (.47), but was retained to tap the full domain of the theoretical construct.

Composite reliabilities ranged from .73 to .95, above the recommended threshold of .70. Average variance extracted ranged from .48 to .87, with only one scale (coordination, AVE=.48) slightly below the recommended level of .50 (Bagozzi and Yi, 1988). These convergent validity statistics are displayed in the Appendix. Discriminant validity was tested by comparing the shared variance among indicators of a construct with the variance shared between constructs. The test for discriminant validity is met when the square root of AVE for the construct is greater than its correlations with other constructs (Fornell and Larcker, 1981). The square root of AVE for each construct is greater than the correlation with other constructs without exception, meeting the test for discriminant validity. Following scale purification, the measurement model was deemed to be a close fit with the data ($\chi^2=426$, $df = 287$, $RMSEA = .040$, $CFI = .975$) and sufficiently robust to proceed with hypothesis testing.

4.3. Structural Model

The tests of hypotheses were conducted in a three-step process; results are shown in Table 1. Before estimating the fit of the base and moderated structural models, we calculated the means for solidarity, mutuality, and flexibility and assigned them as the three manifest variables for relational norms (Kaufmann and Dant, 1992). As a first step, we estimated the fit of the data with the base structural model (Model 1), controlling for firm size. Next, we fit the data to the model with regulatory pressure as a moderating variable (Model 2). Finally, we estimated the fit of the model with competitive pressure as a moderating variable (Model 3).

The fit of Model 1 was good ($\chi^2=1807$, $df = 97$, $RMSEA = .053$, $CFI = .975$). As expected, relational norms and communication were positively associated with coordination (.64 and .28, respectively, $p<.01$). Surprisingly, opportunistic behavior had a positive, rather than negative, effect on coordination (.36, $p<.01$).

Table 1: Structural model and hypotheses tests

Path	Weight
Model 1. Base structural model	
Relational Norms → Coordination	0.64**
Communication → Coordination	0.28*
Opportunistic Behavior → Coordination	0.36**
Model 2. Regulatory Pressure moderating effects	
H1: Regulatory Pressure X Relational Norms → Coordination	-0.16**
H2: Regulatory Pressure X Communication → Coordination	<i>ns</i>
H3: Regulatory Pressure X Opportunistic Behavior → Coordination	-0.36**
Model 3. Competitive Pressure moderating effects	
H4: Competitive Pressure X Relational Norms → Coordination	-0.33**
H5: Competitive Pressure X Communication → Coordination	0.41**
H6: Competitive Pressure X Opportunistic Behavior → Coordination	0.18**

ns indicates non-significant at $p = .05$; * $p < .05$; ** $p < .01$

4.4. Moderating Models

After estimating relationships in the base structural model, we constructed two models to test hypothesized moderating effects. To the base structural model, we added a latent variable for each type of institutional pressure (i.e., Model 2 regulatory pressure and Model 3 competitive pressure) along with three latent constructs that model the interaction between the institutional pressure and the three antecedent constructs. Manifest indicators for interaction constructs were created by generating matched-pair cross-products of the indicators for each construct (Marsh et al., 2004). Where the number of measures in a scale was not identical, we selected conceptually related items and averaged them to form an item parcel and then randomly matched the product indicators to generate cross-products. Because interaction terms are non-linear, they are not normally distributed; thus, fit statistics for such models are meaningless (Joreskog and Yang, 1996). Instead, we report the change in R^2 in the endogenous variable, coordination, as an indicator of the explanatory power of the moderated models compared to the base model. The R^2 for the base model was .42 whereas the R^2 for the models that included regulatory pressure and competitive pressure were .71 and .66 respectively.

The findings support H1 and H5; regulatory pressure weakens the positive relationship between norms and coordination, and competitive pressure strengthens the positive relationship between communication and coordination. H2 was not supported in that the effect of regulatory pressure on the relationship between communication and coordination was not significant. Interestingly, H4 was not supported as the impact of competitive pressure weakened rather than strengthened the relationship between norms and coordination. The moderating effects of regulatory and competitive pressure on the relationship between opportunistic behavior and coordination were as hypothesized (H3 and H6 respectively); however, the relationship itself between opportunistic behavior and coordination was not negative as expected, but positive.

4.5. Rival Model

One could argue that institutional pressures have direct effects on coordination, rather than moderating effects. To test this rival model, we added the two latent constructs for regulatory pressure and competitive pressure as antecedents in the base structural model. The fit of the resulting model was good ($\chi^2=348$, $df = 193$, $RMSEA = .051$, $CFI = .969$). However, the direct effects of the two institutional pressures were not significant. The relationships were not significant between regulatory pressure and coordination ($p=.397$) and competitive pressure and coordination ($p=.470$). In addition, the R^2 of coordination in the rival model was lower than the moderated models (.44). Thus, we can conclude that modeling institutional pressures as moderating effects offers a more robust explanation, compared to considering them as direct effects.

5. DISCUSSION AND IMPLICATIONS

The purpose of this research was to examine the effects of constrained choice imposed by institutional pressures on managing supply chain relationships. We studied the phenomenon in an under-researched but significant context – the wine industry. The underlying premise is that when firms operate under institutional constraints, such as stiff regulations or strong competition, then institutional theory offers new insight about how relationship management is affected. Under these conditions, relationships operate differently, compared to predictions generated by research conducted in the absence of considerations of institutional pressures. This research not only supports the relevance of institutional theory in studies of supply chain relationships, but also extends institutional theory by providing evidence that institutional pressures can vary within a country and within a single industry.

Using the wine industry as our context was ideal to test our hypotheses and provided strong internal validity for our results. However, collecting data from a single industry is a limitation of our study. While the results may apply beyond the U.S. wine industry (e.g., the wine industry in another region), the model should actually be tested in international contexts and across other industries to expand the generalizability of findings. Additionally, we examined supply chain relationships from the supplier's point of view. Distributors and retailers are likely to experience effects of institutional pressures on their upstream relationships, and it would be informative to compare the impact of institutional pressures from the customer's point of view. Ideally, future studies would examine the dyad to capture both views simultaneously.

Our findings have implications for practice. Results demonstrate to wine managers that the institutional environment imposes constraints that have significant consequences for managing supply chain relationships. Producers often struggle in working with wholesalers and retailers, and this research contributes to explaining this. Firms should recognize that the drivers and mechanisms which typically result in positive relationship outcomes respond differently in the presence of institutional constraints. Hence, managers are advised to identify and evaluate the types and levels of institutional pressures that may impinge on their supply chain relationships and adjust behaviors to avoid suboptimal outcomes.

For example, relationships built on coordination respond quite differently to regulatory versus competitive pressures. Overall, regulatory pressure makes obtaining relationship coordination more difficult while competitive pressure makes it a bit easier. Findings indicate that under high regulatory pressure relational norms do not secure the same level of coordination experienced in environments characterized by greater freedom of choice in trading partners. Surprisingly, competitive pressure weakens the impact of relational norms on coordination. The high levels of competition in the industry may make it more difficult to cooperate and share responsibilities with downstream partners as firms fight for share of wholesalers and retailers. Thus under both conditions, firms will have to work harder at building relational norms in order to achieve the desired level of coordination. Communication is important for coordination, and this is strengthened under competitive pressure but not affected by regulatory pressures. Therefore, in this industry communication is key for achieving coordination with downstream partners and institutional pressures should not hurt and can even help this.

Interestingly, opportunistic behavior was positively, rather than negatively, related to coordination. This is likely due to the nature of this industry; producers often feel as if their downstream partners have the power and sometimes take advantage of them. Thus, perhaps opportunism is understood and even expected, and firms increase their coordination efforts to try to monitor this behavior. Regulatory pressure weakens this positive relationship. Therefore, regulations are a catch-22 in this instance. Higher opportunism normally drives higher coordination, but regulations, which should protect firms from opportunism, actually hinder the achievement of coordination. Alternatively, competitive pressures strengthen this positive relationship. While high competition enables downstream partners to behave more opportunistically, this results in higher coordination to try to combat this behavior. Therefore, when faced with high competition, firms should continue to strive for higher coordination in response to opportunistic behavior.

In conclusion, this study examined the effects of constrained choice on managing supply chain relationships and found that pressures imposed by the institutional environment influence attempts to assure high performing supply chain relationships. The effects of institutional pressures are significant and complex. We hope this study contributes to researchers' and

managers' understanding of the interplay between the institutional environment and supply chain relationship management, particularly within the highly competitive and regulated wine industry.

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APPENDIX: MEASURES AND STANDARDIZED LOADINGS

Scale		Measure	Load
Reln. Norms Solidarity CR .75 AVE .60 Mutuality CR .82 AVE .60 Flexibility CR .77 AVE .63	SOL1	We consider this customer to be one of our business partners.	.87
	SOL2	We conscientiously try to maintain a cooperative relationship with this customer.	.66
	SOL3	Our relationship with this customer is more important to us than profits from individual transactions. ^a	---
	MUT1	Even if costs and benefits are not evenly shared between us in a given time period, they balance out over time.	.75
	MUT2	This customer and we each benefit in proportion to the efforts we put in.	.73
	MUT3	My business usually gets a fair share of the rewards and cost savings in doing business with this customer.	.85
	FLEX1	We would willingly make adjustments to help out this customer when faced with special problems or circumstances.	.87
	FLEX2	We would gladly set aside the contractual terms in order to work through difficult situations with this customer.	.71
	FLEX3	This customer gladly sets aside the contractual terms in order to work with us in difficult times. ^a	---
	Communication CR .95 AVE .87	COMM1	Communications from this customer are prompt.
COMM2		Communications from this customer are timely.	.98
COMM3		Communications from this customer are complete.	.86
Opportunistic Behavior CR .92 AVE .69	<i>In our relationship, this customer ...</i>		
	OB1	Alters facts slightly in order to gain our cooperation. ^a	---
	OB2	Does not share information in a timely manner. ^a	---
	OB3	Promises to do things without actually doing them later.	.80
	OB5	Makes vague promises that they later ignore.	.85
	OB6	Withholds information that would put them in a bad light.	.83
	OB7	Tells us what they think we want to hear instead of telling the truth.	.85
	OB8	Takes advantage of us.	.82
Coordination CR .73 AVE .48	COOR1	We have more fully integrated operations with this customer than we have with other business partners.	.59
	COOR2	We coordinate operations with this customer.	.75
	COOR3	Our firm and this customer have processes in place to facilitate the movement of products.	.72
Regulatory Pressure CR .80 AVE .59	<i>In managing the relationship with this customer, my company ...</i>		
	REG1	Is required to comply with a large number of government regulations.	.47
	REG2	Is subject to severe penalties if we fail to comply with government regulations. ^a	---
	REG3	Is forced to do business with them due to government regulations.	.86
	REG4	Has very few alternatives when it comes to choosing a different customer due to government regulations.	.89
Competitive Pressure CR .86 AVE .67	<i>In managing the relationship with this customer, we feel we should ...</i>		
	COMP1	Benchmark competitors in order to improve our performance. ^a	---
	COMP2	Adopt innovations developed by competitors.	.73
	COMP3	Borrow good ideas from the competition.	.92
	COMP5	Copy best practices of the competition.	.80

^a Deleted in measurement model analysis; CR is scale composite reliability and AVE is scale average variance extracted; items missing were deleted based on the pretest

Does Choice Overload Exist in Wine Retail?

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Abstract

◦*Purpose: To ascertain whether evidence of the Choice Overload Effect can be observed in a wine retail environment.*

◦*Design/methodology/approach: A three-part study was created using the customer base of a retailer in the New York City suburbs. Step one was an online survey sent to a large sample of the retailer's database. Second was an observational study of 119 customers as they shopped in a wine store. Finally those 119 customers were interviewed post-transaction regarding their satisfaction with the store and the choices they encountered.*

◦*Findings: No evidence of Choice Overload was observed in any of the three facets of the study. The study participants self-reported wanting more choices, and nearly 80% of respondents in the survey either wanted more choice or were satisfied with the number of choices currently existing in the wine shops. Correlation between amount of choice and satisfaction with the wine ultimately chosen was insignificant despite a range of options in the study locations of between 1200 and 1800, a difference of 50% in the wines offering.*

◦*Practical implications: The retailer has a customer base of high-consumption customers who frequently shop for wine. Choice overload is mitigated by frequent tastings of wines that the staff selects rather than being distributor-driven. There are many long-term staff members that consumers can recognize and trust. Also the store layout is easy to understand, sorted from Country-Region-Price so that the large selection is quickly navigable.*

Key words: Choice overload, wine retail store, New York, Store layout

1. Introduction

Barry Schwartz says that the effects of expanded choice are the following: “*It means that decisions require more effort. It makes mistakes more likely. It makes the psychological consequences of mistakes more severe*” (Schwartz, 2004). Many wine shops carry multiple thousands of individual wine labels, and *Total Wine* in the US advertises that each of their 70+ stores offers 8000 wines. In that perspective, a wine shop can be a confusing environment for a customer, even for one who is engaged and knowledgeable about the world of wine. There is also a cacophony of signs, ratings, descriptions, colorful labels that all attempt to draw the consumers' eyes to that one special bottle. And of course each of those bottles is entirely different from one year to the next due to the vagaries of the harvest. Without generally having knowledge about the intrinsic knowledge of the wine, consumers need to rely on extrinsic cues (Lockshin et al., 2006). In many cases, even the obvious extrinsic markings aren't very helpful. And wine is an experience good, as the only way to ascertain the qualities of the bottle is to consume it (Dubois and Nauges, 2010).

In the meantime, retailers want happy customers. There are many actions that retailers use to help create unconscious happiness and satisfaction: music, color schemes, price framing, and even subliminal messaging (Areni & Kim, 1993). With a body of research from other disciplines that show customers are less satisfied when presented with too many options, can a wine shop that carries essentially thousands of the same product type (alcohol) tailor their selections to maximize satisfaction? There has to be a balance between carrying too few selections (having one red *Bordeaux* for example) and an overload that leads to customer dissonance (offering 87 different *petits chateaux*). Where do consumers want that balance to be, even if they aren't consciously making the distinction? With the explosion of selections available to the wine customer in the past two decades, are they more satisfied with their wine shopping experience?

However simply establishing the plethora of choices and information available to a wine consumer is not enough to definitively say that a choice overload situation exists in wine retail. Once a customer reaches a threshold of comfort with the beverage, wine does not have the same consumption and purchasing patterns as other consumer commodities like tomato sauce, toothpaste or televisions. Consumers generally enjoy and seek out new wines to experiences; new regions, grape varietals or producers. This exploratory behavior would imply a necessity for a selection greater than that of other consumer goods.

This study will attempt to address the question of whether the choice overload phenomenon exists in a wine retail environment. At first, a review of current literature on both choice overload and consumer behavior in a wine retail environment is conducted. The research design is then presented, mixing quantitative and qualitative interviews. Results and findings are developed and discussed in section 4 and 5. The final section attempts to elucidate implications for managers, lastly followed by thoughts for further research.

2. Literature review

2.1. Consumer choice overload

Choice overload was first described by Toffler in 1970: “[*Overchoice takes place when*] the advantages of diversity and individualization are canceled by the complexity of buyer's decision-making process”. The concept of choice overload is an accepted part of study of consumer behavior (Schwartz, 2004; Airely, 2008): when presented with too many options,

people have a difficult time cognitively processing all the possibilities, leading to them either walking away from the transaction, or being less satisfied about the transaction than they would have been with fewer options. Consumer research in many fields has provided that choice overload does exist and leads to lower satisfaction with purchases, or can even lead to no purchase being made at all (Dhar & Simonson, 2003).

Such a situation has been observed by Iyengar et al. (2000), who studied consumer behavior sampling jams in a supermarket setting. When presented with a selection of six different flavors of jam to sample, 30% of the consumers eventually bought a jam. On another day the authors set up a tasting of 24 varieties of the same producer's jam. Only 3% of sampling customers purchased jam, a 90% decrease in purchasing volume.

However, choice overload may depend on the item being bought. Gourville and Soman (2005) categorized items as either "alignable" or "non-alignable". Alignable good assortments are products in which the differences vary only in one respect (jeans that vary just in the waist measurements). Non-alignable goods vary among different dimensions and involve trade-offs by the consumer choosing among them. They found that having alternatives in alignable goods does not lead to an overchoice effect, but non-alignable goods will create that effect as consumers are forced to give up something that may be desirable in order to choose another attribute they want.

In an attempt to look at mitigating factors which might ease the onset of choice overload, Haynes (2009) varied assortment selections with time constraints given subjects in which to make a selection. He discovered that having more time in which to choose does in fact lessen the choice overload impact and allow subjects to feel more satisfied with their choices (Haynes 210). This could be adapted by retailers to remove some selection during the busier times (ie, Christmas) and allow harried shoppers to choose between fewer items.

In an interesting exploration of the subsets of choice overload, Polman (2011) separates choosing for oneself versus choosing for someone else, as in selecting a gift. Polman interviewed customers leaving two wine shops in the same city in New York. One of the wine shops was 400 square feet in size, representing a small-choice option and the other ten times as large, representing a large choice selection. When asked how satisfied they were with their purchase on a scale of 1-11, customers who were purchasing for themselves from the smaller store self-rated as more satisfied than the customers from the larger store. Contrarily, customers who were purchasing for another were happier with their transactions from the larger store than the smaller.

2.2. How do consumers choose from an assortment?

As an experience good, the qualities of a bottle of wine aren't known until after it is consumed. Therefore when presented with an unfamiliar bottle on a retail shelf, a customer relies on a mix of intrinsic and extrinsic cues to help make a decision (Lockshin et al., 2006). Lockshin et al created a discrete choice experiment to see which cues resonate most with customers. They found that unknown brands have a halo affect from being from a well-regarded region as well as having received a medal. Conversely more expensive wines had a negative sales correlation with the presence of a medal. They do not attempt to link medals with points from wine critics as it seems counterintuitive that higher priced wines sell better without high ratings. They also differentiate between high and low-involvement consumers. High involvement are more experienced, have more knowledge and are more confident with wine and are more likely to select an unknown brand than a low involvement consumer, who is more likely to shop on

price and the presence of medals.

Before they even begin to look at specific bottles, consumers form unconscious impressions on a store's selection (Amine & Cadenat, 2003). They identify three kinds of goods, with different consumer desires for choice: "delight products," "loyalty goods" and "utilitarian goods". They found that consumers' preference for greater selection is much larger in delight products than utilitarian goods, and moderately larger than loyalty products. As an example, between two supermarkets customers considered the one with a 7% greater selection in yogurt to be the stronger one, despite both stores having over 260 individual selections! On the contrary, one of the stores had 28% more brands of dish detergent and the subjects rated the store selections as equal. This has interesting implications for the wine business. In a wine shop, do the different categories of wine (Bordeaux, Tuscany, Australia, etc.) make up their own class of good or is the selection as a whole considered one category, in which consumers look for specific big brands as an anchoring mechanism to decide on the assortment quality?

Going deeper into the concept of how consumers unconsciously form opinions on store assortment, Morales et al. (2004) state that consumers' perception of variety and satisfaction are dependent upon how the assortment is organized, both internally by the consumer and externally by the retailer. Both retailers and consumers group their merchandise into categories, and only when there is a match between the two do customers perceive a good assortment. If a consumer is looking for "wine for dinner tonight" but the retailer has the categories "United States", "France," etc, there is not a match between structures. It then becomes important to know exactly how most customers look for wine in a store; by region, occasion, price or something else and attempt to tailor the store offerings in that way. Lastly, Lockshin and Kahrimanis (1998) describe store image as the "consumer's perception of a store's positioning". To maximize consumer satisfaction, retailers must carry the right amount of products and display them in the way their customers will best respond to.

Many retailers will use signage such as "Best Seller" or "Manager's Pick" to spotlight individual items (Spasova, 2009). Store managers do this with the assumption that streamlining a customer's choice by guiding them to obvious items (presumably higher-profit centers for the retailer) helps both retailer and customer. Spasova (2009) points to studies that not only disprove this theory, but in fact results in the opposite: in stores with a large selection, the odds of a highlighted item matching one that the customer was already considering are quite small, so customers are forced to expand their efforts in picking an item, leading to an increase in the overload effect.

2.4. Choice overload in a wine store: hypotheses

From the review of the literature, conditions may lead to a choice overload effect in a wine retail environment. The following hypotheses can therefore be postulated:

H1: The greater number of wines available in a store, the lower the satisfaction of customers with their choices. The large selection of wines with mostly intrinsic cues will lead to customers feeling less satisfied with their eventual choices given an increase of options. Stores with greater selections should have lower overall satisfaction than stores with smaller offerings. An affirmation of H1 has yet to be studied in a wine retail environment and would have benefits for the wine industry given the rise of mega stores with multiple thousands of choices.

However, given the rather unique place of wine in the system of consumer goods, it can also be surmised that (H2) the more involved a consumer feels about wine, the higher the threshold to

reach choice overload.

Based on the importance and ubiquity of wine critics, ratings and medals in a wine environment, consumers seek information to help them sort through the myriad selections and choices and information that abounds. That leads to (H3): a customer that feels stronger satisfaction with a wine store will have a higher threshold before experiencing choice overload than a customer with a lower reported store satisfaction.

In conclusion, this paper will address the question of whether a choice overload effect exists in a wine retail environment. Additional questions to attempt to answer are where the delineation exists between sufficient levels of choice and the overload condition, and are there steps that a retailer can do to raise the threshold level before overload happens.

3. Research method

To ascertain the validity of the hypotheses regarding choice overload in a wine retail environment a combination of methods will be used. The survey took place in a regional chain of nine large wine and spirit stores in the New York City metropolitan area (New York, New Jersey and Connecticut). The nine stores have a similar “look and feel” to each other, and attract the same customer demographic. A main difference is in the stores’ physical size, ranging from 4000 sq.ft. to 12,000 sq.ft with most clustered around 10,000. Overall SKUs of wine sold in each store range from 1100 to 1900. The differences between stores allows for ease of testing the choice overload hypotheses.

3.1 Step 1: Quantitative questionnaire

At first, a survey was sent via email to the customer database of the retailer. The purpose of the survey was about measuring customer’s attitudes on how they browse and select wine in a wine shop: if they shop by country or by varietal; do they seek help from store personnel or prefer to browse on their own; and how many bottles do they usually purchase in one visit. The survey was randomly sent to 4000 names from the retailers email database. 806 responses were collected. These customers self-reported as being high-consumption wine drinkers: 57% shop for wine bi-weekly or more. 50% of respondents purchase four or more bottles of wine in each shopping trip.

Questions asked in this survey include: frequency of wine shopping in the store; number of bottles usually bought; attributes activated to buy a bottle of wine; time spent in the store; intention to buy specific wines before entering the store; reaction if an expected wine is not available in store; impact of wine tasting; feeling about the store; effect of too many choices; the extent some regions are perceived as 'too much' choice;

Compiling the responses will give a baseline on how customers perceive their behavior when in a wine retail environment. The second piece of the study is about observing customers inside a wine shop to see if observed behavior correlates with predicted behavior from customers’ own statements of beliefs, and follow up with a face to face interview of the customer.

3.2 Step 2: Observed behavior

In order to ascertain how customers actually behave while in a wine store, a direct observational approach was used. Three of the nine stores will be used for the observations, choosing one store each in New York, New Jersey and Connecticut in order to gather as wide

a range of customers as possible. Findings of this specific step are presented here, and only presented as a greater understanding about why 119 face to face interviews were conducted in step 3. Along with tracking their path through the store, customers' behavior was noted as well: how long is spent in each section; how many bottles are touched/looked at; what gets placed into the customer's cart/basket and whether and where the customer seeks out store staff.

A total of 119 customers were randomly selected upon entering the store, spread across three different locations in the same retail chain. These three locations are in three different states, and have sales volumes that differ by a factor of 4 from the highest to lowest locations. Completing observations across markets allows for greater diversity in consumers and gives a more complete picture of the “average” wine customer. And having a wide range of store volumes again allows for a more complete picture of the range of wine consumers.

3.3. Step 3: Follow-up interview

After the observed customer has completed their transaction, they were interviewed outside the store regarding their satisfaction with the purchase. Questions included:

- 1) Did you know in advance which wines you were going to buy? If yes, did you only purchase those wines?
- 2) On a scale of 1-10, how satisfied are you with the wine you purchased (not the store itself)
- 3) On a scale of 1-10, how satisfied are you with the store overall (not the wine you just purchased)
- 4) I see that you just purchased a (insert type of wine observed being purchased). If you had to guess, how many wines of this type did you have to choose from?
- 5) On a scale of 1-10, please rate your wine knowledge.

Question 4 was developed as the proxy to varying choices within the store itself. Are customers more satisfied when they perceive fewer choices than there in fact are; or inversely are they less satisfied if they feel like they have more choices than in actuality?

4. Results

4.1. Self-reported behavior of SL's clients

From a descriptive perspective, we would note that about a quarter of the respondents shop for wine monthly, 35% of them would do it a couple of time a month and 20% weekly or more. People shopping on a weekly basis are more likely to buy only one bottle of wine whereas people shopping on a monthly basis would buy more than 4 bottles of wine. The most cited criteria customers based their buying choice on is the grape variety (36% of the respondents said they mainly select wine according to grape varieties) and more than 85% of the respondents state that they have time to browse and explore during their shopping trip. In that perspective, 60% said they spend more than 10 minutes for their shopping trip. For most of the respondents (Table 1), the shopping trip seems to be a pleasant trip, with 65% stating that they would browse until I see something interesting.

Table 1: Which best describes you when you enter a wine shop?

	#	%
I know exactly what I want to purchase and only look for that wine(s)	78	9.7
I have a rough idea of what I want and browse until I see something interesting	528	65.7
I have a rough idea of what I want and ask for help finding something interesting	142	17.7

I have no idea what I want to buy and browse until I see something interesting	43	5.3
I have no idea of what I want to buy and ask for help finding something interesting	13	1.6
Total	804	100

An analysis of consumers' self-reported behavior does not show evidence of a choice overload effect. 83% of respondents reported being happy with the number of selections in the wine store (Table 2), as compared with 14% who wanted greater selection and only 3% preferring a more limited selection range.

Table 2: Which statement best represents your feelings about Stew Leonard's Wines store?

	#	%
I wish they had more selections in wine	103	14
I am happy with the number of wines they carry	622	83
I would prefer fewer options	8	1
They have too many choices of wines	15	2
Total	748	100

Furthermore, when asked to rate the level of agreement with the statement "Do you believe that having too many choices of wine in a store makes it more difficult for you to select the wine you want?", 70% chose *totally disagree* where only 5% selected *totally agree*. Even when looking solely at those respondents who agreed (Table 3) with the statement about having too many choices leading to more difficulty in choosing, the majority of those people still were satisfied with the selection levels in the store.

Table 3: Feelings about Stew Leonard's wines

<i>Thinking about the entire store, which statement best represents your feelings about Stew Leonard's Wines?</i>	Agree with statement 'I believe that having too many choices of wine in a store makes it more difficult for me to select the wine I want'	Overall
Wish they had more selections in wine	8%	14%
Am happy with the number of wines they carry	71%	83%
Would prefer fewer options	8%	1%
They have too many choices of wines	12%	2%

This satisfaction with the overall choice level in the store even extended to those who were usually rushed for time while shopping (Table 4).

Table 4: Feelings about Stew Leonard's wines when rushed for time or not

<i>Thinking about the entire store, which statement best represents your feelings about Stew Leonard's Wines?</i>	When you do your wine shopping are you usually rushed for time or do you have time to browse and explore?		Overall
	Rushed for time	Able to browse	
Wish they had more selections in wine	20%	13%	14%
Am happy with the number of wines they carry	74%	85%	83%
Would prefer fewer options	3%	1%	1%
They have too many choices of wines	4%	2%	2%

In the meantime, it seems that wine involvement does not have an impact on respondents' feelings about the stores from a number of selections' perspective (Table 5).

Table 5: Feelings about Stew Leonard's wines by level of wine involvement

<i>Thinking about the entire store, which statement best represents your feelings about Stew Leonard's Wines?</i>	Wine involvement			Overall
	Low	Medium	High	
Wish they had more selections in wine	13	12	15	14%
Am happy with the number of wines they carry	83.5	85	82	83%
Would prefer fewer options	1.2	1.4	1.0	1%
They have too many choices of wines	2.1	1.4	2.4	2%

4.2. Face to face interviews with 100 customers

Results from the live interviews confirmed the on-line survey result (Table 6): no discernable evidence of choice overload emerged.

Table 6: Satisfaction (out of 10) with wine purchase

Location of the store	# of respondents	Average satisfaction wine purchase	# of Wines available in each store
Farmingdale	44	9.2	1849
Paramus	50	9.0	1196
Newington	25	9.2	1626
Total	119	9.2	

Out of the 119 interviews, only three respondents rated the satisfaction with their wine choice less than seven on a scale of 1 to 10. We could have assume that the average satisfaction in the Paramus store to be higher compared to the two other stores (with a higher number of wines available), but we have observed the opposite. This also extended to satisfaction with the wine store in general (Table 7).

Table 7: Satisfaction (out of 10) with the stores

Location of the store	# of respondents	Average satisfaction wine purchase	# of Wines available in each store
Farmingdale	44	9.5	1849
Paramus	50	8.9	1196
Newington	25	9.2	1626
Total	119	9.2	

In fact, the location with the greatest number of wines had the highest overall store satisfaction and tied for the most wine satisfaction.

When looking at total time spent to select wine, it was discovered that there was an inverse correlation between overall choices and time spent shopping for wines (excluding situation / time of tasting wine when a wine tasting was available):

- Farmingdale: 4 minutes
- Paramus: 6 minutes
- Newington: 7 minutes

4.3. Hypotheses outcome

- H1: The greater number of wines available in a store, the lower the satisfaction of customers with their choices. As described in tables 2, 3, 4 and 6, a greater number of wines available in store leads to a greater satisfaction, and so, hypothesis is not supported.
- H2: The more involved a consumer feels about wine, the higher the threshold to reach choice overload. As discussed from table 5, wine involvement does not impact on satisfaction for a lower or greater number of wines available in the store. Therefore, the hypothesis 2 is not confirmed.
- H3: A customer that feels stronger satisfaction with a wine store will have a higher threshold before experiencing choice overload than a customer with a lower reported store satisfaction. As shown in table 7, the greater the number of wines available in the store, the greater the average satisfaction of wine purchases. Therefore, the hypothesis 3 can't be supported.

With the three hypotheses not proved it is apparent that choice overload does not exist for the customer base of this wine retailer. The following section will discuss questions raised by these findings and possible explanations.

5. Discussion

We are left with an absence of choice overload in this regional chain of wine stores despite a body of research showing that the dilemma exists in many different environments. One possible explanation is that the customer base of this retailer is substantially different from the average wine consumer. The data from the survey shows them to be high consumption, highly-engaged wine consumers. The interviews show a high level of satisfaction with the store in general separated from the purchased wines. And customer demographic data shared by store management shows that the majority of customers pass at least three other wines stores to shop at this specific retailer, reinforcing the idea of loyalty and comfort with the store. That innate trust and confidence could be a mitigating factor in preventing choice overload, as shown by Macintosh and Lockshin (2007). As already discussed by Benke et al. (2012), higher levels of comfort with a store seem to indicate a lowering or even elimination of the choice overload effect.

An intriguing possibility remains: is it possible that wine is a unique category of consumer good for which choice overload does not exist? Despite a large body of work showing choice overload exists, there is not unanimity in the literature. A meta-analysis of the current research on choice overload (Scheibehenne, 2010) does not find evidence of it; in fact they conclude "the overall effect size in the meta-analysis was virtually zero". They further postulate that "more choice is better with regard to consumption quantity and if decision makers had well-defined preferences prior to choice". This sounds rather like the high-consumption, engaged customer base of the retailer in this study. High consumption equates to more familiarity to the product category which leads to greater confidence in selecting from a larger set. Unlike the research on non-alignable goods (Gourville and Dilip, 2005), wine is bought regularly. Computers, televisions, ceiling fans etc. are low-frequency purchases, and consumers never get comfortable with the choices in a category. Wine comes with a comfort level, particularly when there is perceived to be "no bad option".

An anecdotal similarity is observed at a farmers' market where a table might contain two dozen varieties of heirloom tomatoes. Instead of becoming paralyzed with the options and walking

away, people grab a little of many kinds in order to taste many different kinds and discovering preferences on their own. This is possible with wine and tomatoes but not in high-value items like cars and computers where the financial implications of a bad choice are starker.

Being a high-frequency, comparatively low-value good means that the risk of making a bad selection is minimal; a person can always make a new choice in a few days when they return to the wine shop. Loyalty to a specific store breeds comfort with the choice selection; if this store offers it then it must be a good selection. Finally with the use of categories, the selections are bracketed into smaller more manageable chunks making the selection process easier. This retailer not only sorts wine into regions and sub-regions (ie, Italy->Tuscany->Chianti) but those sub-sections are organized roughly by price point. Using these brackets allows for a section of 300 wines to quickly be navigated into just those wines that the consumer wishes to select from without having to browse all 300 offerings.

Further research needs to be done to confirm or disprove conclusively whether choice overload does in fact exist, and if it does exist is wine as a consumer good immune to it. Replicating this study at a different retail chain can see if this present study is invalid due to an aberrational customer base compared to the “average” wine retail chain.

Another avenue for exploration is in the shopping habits of wine consumers in general. Like the voracious tomato eaters at the farmers’ market, how adventurous are average wine consumers in seeking out new wines and experimenting with them? If it can be shown that a wine shopper desires more choices than a jam shopper or someone looking for a television this would explain the lack of choice overload observed in this study. A last question that can be studied in a wine retail environment concerns price levels. If it can be postulated that wine constitutes an intrinsic good where the cost of a poor decision is minimal (wine is cheaper than a flat screen TV for instance); mitigating choice overload due to the low barrier of selection. But what about for fine wines (say \$50 per bottle and above) where now there is some pain involved in choosing poorly? Is there a measurable choice overload affect in this category of wine compared to the more everyday selections of wines generally observed?

5. Conclusion

This paper deigned to look at the choice overload effect; where consumers feel less satisfied when forced to choose from among too many options; or even postpone deciding entirely. A large body of research has confirmed this effect exists across a wide range of goods and categories. However it had never been studied in the environment of wine sales. Hypothesizing that wine occupies a unique category of intrinsic cue goods, this paper set out to measure the choice overload effect in a wine retail environment.

A three-part study was designed: first a survey was sent to 4000 wine drinkers asking about their habits while wine shopping, and secondly 119 customers were observed as they shopped in three separate wine stores and thirdly they were interviewed after their transaction was complete. The goal from the three segments of the study was to measure the existence of the choice overload effect using satisfaction ratings for the customers’ ultimate selections of wine as well as they overall satisfaction level of the wine store in general.

Self-reported behavior in the survey showed no evidence of choice overload. These findings were replicated in the interviews, where people explained being extremely satisfied with their wine purchase, irrespective of number of bottles purchased, time spent in store, wine knowledge level or any other factor. Therefore in this study the choice overload effect did not

exist.

Careful review of existing literature regarding choice overload points the way to some steps that retailers can take to mitigate the effect. Sorting the selections into easily recognizable categories allows for easier purchasing and greater satisfaction (Mogilner et al., 2008). Creating overall customer comfort with the specific store creates loyalty and satisfaction: this can be accomplished by having a well-trained, long-tenured staff (Macintosh & Lockshin, 2007) and a clean, easy shopping environment (Morales et al., 2004).

The retail chain in which this study was taken is known for actually doing all these mitigating factors. They have been named “Retailer of the Year” by multiple wine trade publications and have been included on Fortune Magazine’s Top 100 Companies to Work for 10 years in a row. The long-tenured staff, well organized floor layout and national reputation all serve to put customers at ease (both consciously and un-consciously) allowing for a lessening of the choice overload (or in this case, the elimination of it).

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CREATING THE IDEAL PURCHASING ENVIRONMENT FOR CONSUMERS: SPECIALIST WINE RETAIL OUTLETS IN THE UK.

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Abstract

◦Purpose

The aim of this study is to offer insight into the different profiles of specialty wine retail consumers and determine what aspects of the retail outlet environment are the most important influencers on consumer behaviour, and their effect on when and how they buy wine.

◦Design/methodology/approach

The first stage of research involved interviews with specialist wine retail professionals to gain insight into consumer behaviour from the professional's perspective. The second stage consisted of in-store consumer observation of 100 subjects, complete with a short interview component. Conclusions drawn from the two stages were then compared, revealing similarities and discrepancies among the specialist retailers' perception of consumer purchasing behaviours and observed consumer purchasing behaviours in specialist wine retail outlets.

◦Findings

The conclusions of the study identify the main areas in how the specialist retailers' perception of consumer purchasing behaviour differed from actual consumer behaviour observed in store, most notable of which was the role of sales assistants in final purchasing decisions.

◦Practical implications

This study reveals certain implications for specialist wine retail outlets. These include: (1) growing necessity of targeted and personalised marketing strategies in-store and via digital communications (website, social media, etc.); (2) product arrangement by country or grape variety may be less relevant with evolving consumer base; (3) importance of additional in-store offerings for the consumer; and (4) retail staff education.

Key words: wine retail, independent retailers, purchasing behaviours, consumers

1. INTRODUCTION

Over the last 15 years, the supermarkets have consolidated and overpowered most other wine retail outlets, squeezing out mid-market players such as Oddbins and First Quench who have been forced into administration. Today, large supermarket chains dominate the off-trade for wine in the UK, leaving only a small gap for specialist wine retailers to compete. As businesses in the independent retail sector typically do not have the resources to offer heavy discounting and price promotions to the bargain-loving UK consumer, it is essential that they offer incentives beyond price to increase their customer base and encourage customer loyalty.

1.1. Project Area and Purpose

The aim of this project is to offer insight into the different profiles of consumers who engage with specialty wine retail outlets, whether they are first timers or seasoned shoppers. We will determine what aspects of the retail environment are the most important influencers on consumer behaviour and what specific effects they have on when and how people buy. There are a variety of different variables that shape the consumer's ultimate purchasing decision and many of these variables are connected with the overall retail outlet environment where the purchase is made. These variables include presence of major brands, pricing, location of the retail outlet, organisation of stock (categorising wines by country, style, etc.), in-store marketing and advertising, and sales assistants.

1.2. Research Questions

- For specialist retailers, what are ideal conditions in a specialist retail environment for consumers to buy wine?
- For consumers, what are the ideal conditions in a specialist retail environment to buy wine?
- To what extent do the ideal conditions for consumers reflect what retail professionals accept as true?

1.3. Significance

According to Stares (2013), volume sales in the UK are expected to stay stagnant due to rising prices driven by the duty escalator. As a result, consumers will buy less frequently, yet be more likely to trade up to premium products. Taking this into consideration, specialist retailers should look at maximising their influence while customers are in-store as their visits to these retail environments may be less frequent in the future.

Previous research surrounding consumer behaviour outlines the cues and wine product attributes that influence purchasing decisions, however, many studies have drawn conflicting conclusions. Lockshin and Hall (2010: 13) point out that there is a 'lack of consensus' due to the fact that the correlation between how consumers communicate they behave and how they actually behave in a retail environment is fairly weak. This makes achieving any tangible and accurate conclusions about consumer behaviour difficult. Gluckman (1990) asserts that, in reality, where consumers lack the knowledge to determine quality they instead rely on indicators such as the manner in which products are categorised in store, packaging, price, endorsement by reputable authorities in the trade, and marketing strategies. This study will

look at how well wine retailers understand consumer purchasing behaviour in specialist retail outlets.

2. METHODOLOGY

For the purpose of this study, which specifically concerns the specialist wine retail sector, three relevant consumer segments were defined. They are:

◦*Non-winos*: Individuals who rarely, if ever, shop for wine. They enter the retail environment for a quick service, such as buying for a gift or special occasion. Wine is seen only as a commodity.

◦*Budding Enthusiasts*: Occasional wine drinkers who are no longer satisfied with the branded wines that supermarkets offer. They want to trade up, but are uneasy about doing so and still price conscious. They want to gain wine knowledge but also fear appearing uneducated to sales people in store or as a host when serving wine to guests.

◦*Walk-outs*: Those who enter a retail environment with a set brand or price that they will not deviate from. If their specific need cannot be satisfied they will not make a purchase.

2.1. Primary Research

In the first stage of the study, specialist wine retail professionals were interviewed individually, each presented with the same set of questions to which they answered verbally and were recorded during thirty minute sessions. Six interviews were conducted with staff at two specialist retail outlets. In the second stage of the study, consumer observations were conducted on 100 shoppers, selected at random. With each subject, behaviours were first observed without any direct contact and then engaged in a brief interview to determine the following: 1) motivation for purchase and 2) consumer cues. As Lockshin and Hall (2010: 13) point out, consumers are not often accurate in their assessment of their own purchasing behaviour; therefore, surveys were dismissed as a method of data collection due to their potential inaccuracy. Consumer observation was conducted at regular intervals over a six-week period. Data was collected, summarised and then compared to conclusions drawn from interviews.

2.2. Delimitations, Limitations, and Assumptions

Lack of video surveillance inhibited the ability to obtain data from a larger subject pool. The study also assumes that the data recorded from the two retail outlets involved in the study can be applied to a broader spectrum of specialist wine retail consumers in the UK.

3. CONCLUSIONS AND RECOMMENDATIONS

The conclusions of this study illustrate how effective specialist wine retail outlets are in understanding consumer behaviours. From the findings, we can identify certain managerial implications for specialist wine retail outlet operations that, if addressed, will more closely reflect the ideal purchasing environment for consumers.

3.1.1. Consumer Motivations for Buying Wine

Based on the interviews with specialist retailers, the consumer's principal motivations for entering specialist retail outlets to buy wine are: (1) as a gift, (2) personal consumption, and (3) for a special occasion. Overall, the specialist retailers saw the gift purchase as a far more common motivation among consumers than personal consumption or special occasion.

The data collected from consumer observations showed that personal consumption was the top motivation for purchasing wine in specialist outlets (48%), though gift purchase was nearly equivalent with only 2% less of the sample population (46%). These two incentives accounted for nearly the whole of the sample population while the third motivation, special occasion, was insignificant (6%). Therefore, conclusions drawn from the interviews are only partially validated – personal consumption was underrated by the specialist retailers as a principal motivation. This suggests that more consumers are rejecting the idea that specialist retail outlets are only appropriate for particular situations when the willingness to spend is increased; they may also be used for frequent purchase of wine for personal consumption. It is also noteworthy that whilst the percentage of male and female shoppers buying wine as a gift or for personal consumption are comparable, 100% of purchases for special occasions were male. Further research is necessary to understand the reason for this trend.

3.1.2. Consumer Cues

The interview stage revealed that specialist retailers assume that most consumers base their purchases on: (1) country of origin, (2) grape variety, and (3) price, with the latter much less significant than the former two. These conclusions were then compared with data collected from consumer observations which ranked indicators as follows (in order of importance): (1) style, (2) country or region of origin, and (3) brand and price. Therefore, the conclusions drawn by specialist retail professionals were invalidated.

The specialist retailers suggested that consumers select wines according to country or region, despite having little knowledge of that country or region, and that brand was an insignificant attribute in the consumer's purchasing decision. Brief interviews with consumers invalidated both of these points. Style was the primary indicator for consumers (30% of sample population), whilst 20% of the sample was guided principally by the brands. The power of branding appears to retain a strong influence over wine purchases, though specialist retailers may not be fully aware of the extent of its importance. Price is the one consumer cue ranked by the specialist retailer that was validated by consumer observation, revealing that 20% of consumers used price as an indicator. Though not among the top consumer cues, price holds its influence over certain parts of the customer base and will likely continue to do so, especially in the current economic climate.

3.1.3. Retail Outlets

During the interview stage, there was general agreement that specialist retail environments have a major disadvantage in that they do not generally appeal to the female demographic of their consumer base. Specialist outlets often create confrontational environments that have been considered more suitable to male consumers over female. This would account for why a much larger percentage of women make wine purchases at grocery retail outlets, where the consumer may retain anonymity. The conclusions made by the specialist retailers drawn from the interviews are validated from the data collected in the second stage of the study, confirming

that male consumers are a majority, contributing to 32% more of the customer base than women.

To offset this phenomenon and create an ideal purchasing environment is dependent on many factors. From the information gathered during the interview stage of the study, two essential elements reduce a confrontational environment: (1) customer service and (2) additional offerings. Customer service involves the role of the retail assistants but not in the same way as will be discussed in the next section. Here the expectation is a greeting and the offer of assistance, two aspects which differentiate specialist retail outlets from large grocery outlets. The next element, additional offerings, is anything unrelated to promotion or the retail sale of wine, though it may indirectly encourage purchasing. These offerings may include but are not limited to wine tasting, food, sale of other alcoholic/non-alcoholic beverages, and reading materials.

Another element that was considered was the presence of other shoppers in the retail outlet. In the interviews, conclusions were made that busy versus quiet periods had a significant effect on retail sales. Consumer observations validated this point, illustrating that 30% more of the sample made a purchase in a quiet shop (90% of population) versus a busy shop (60% of population). Alternatively, 30% more of the sample walked out of the shop without any purchase in a busy shop versus a quiet shop. During busy periods when there are limited resources of sales assistants, the consumer is more likely to leave the shop with no purchase if they cannot find what they want.

3.1.4. Sales Assistants

During the interviews with the specialist retailer subjects, individual views about the role of retail assistants diverged; however, there was agreement that interaction with sales assistants was the element of the retail environment with the strongest influence over the consumer's purchasing decision. Conclusions suggested that recommendations and authoritative comment by sales assistants are the most effective methods of ensuring a purchase. However, conclusions drawn from consumer observations invalidates the hypothesis that sales assistants have significant influence on the consumer's purchasing decision - it shows that the proportion of consumers who made a purchase is equivalent to those who did not, regardless of the level of engagement with the sales assistant.

One area in which sales assistants did have a significant influence is on the customer's decision to trade up. 67% of those who interacted with the sales assistant traded up from the amount they originally intended to spend. This result validates the conclusion of specialist retailers made during the interviews and suggests that staff education and training is essential to maximising the impact sales assistants can have on the consumer's purchasing decision. Consumers need information to justify spending more money, and knowledgeable staff is required to fulfil this need.

3.2. Managerial Implications

From the data analysis, we can identify a few explicit implications that are relevant for those working within the specialist retail sector of the wine trade. They are: (1) growing necessity of targeted and personalised marketing strategies in-store at time of purchase and via digital communications (website, social media, etc.); (2) product arrangement by country or grape

variety may be less relevant with evolving consumer base; (3) importance of additional in-store offerings for the consumer; and (4) retail staff education.

3.2.1. Personalised Marketing

Based on the findings of this study, the consumer base of the specialist retail outlets is more diverse than it is understood by the specialist retailer. Within this consumer base, there are certain gaps that need to be addressed with targeted marketing strategies. We have seen that the consumer is buying wine not only as gifts, but for personal consumption, which is guided more by other consumer cues than price. Thus, price promotions may have less of an influence on purchasing decisions, whereas personalised marketing campaigns targeted at different segments within the consumer base would be highly influential. Female shoppers form a particularly fragile segment of the consumer base for specialist retail outlets and would thus benefit from new marketing strategies. Filling this gap in gender segmentation is vital to increasing sales across the specialist retail sector.

3.2.2. Product Arrangement

The data collected in the study illustrates that style is the most influential factor for the consumer's purchasing decision in specialist retail outlets. This suggests that categorising product in store by more traditional indicators such as country and grape variety is not the most effective method for creating an ideal purchasing environment. New and innovative sales models use style as the principal indicator by which to categorise wines, but the vast majority of specialist retail outlets in the UK fail to recognise the need for this innovation.

3.2.3. Additional Offerings

New strategies and offerings that will engage the consumer at the time of purchase are essential for specialist retail outlets to remain competitive. Some examples of offerings include: wine by the glass, reading material, alcoholic/non-alcoholic alternatives to wine and self-assistance tools: enomatic machines, recipe lists, local maps to floral stores and restaurants accepting BYOB (bring your own bottle). These are especially pertinent to the *budding enthusiasts* who want to expand their knowledge of wine, regions and food pairing possibilities.

3.2.4. Staff Education

From the consumer segmentation analysis, the *budding enthusiasts* group forms the core of the specialist retailer's consumer base. As defined in the study, consumers in this segment want to expand his or her basic wine knowledge and look to trade up from inexpensive and bulk supermarket wines. To achieve this, consumers often move from large grocery outlets to specialised retail outlets, seeking out sales assistants who can facilitate this learning process with their own knowledge. The study also shows that though staff interaction may not be essential to encourage the purchase, it does result in trading up. Maximising this result comes from staff education as knowledgeable sales assistants are able to provide the tangible reasons that consumers require to trade up.

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Multifunctional diversification for the Italian wine producers: the state of the art in the adoption of deepening strategies

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Abstract:

◦Purpose (mandatory):

The paper aims at underlining how the application of deepening, broadening and regrounding strategies (as defined by the Van der Ploeg “Triangle”) might help Italian wineries to maintain themselves competitive as they face new challenges on the internal market.

◦Design/methodology/approach (mandatory)

Starting from an overview of the use of deepening, broadening and regrounding strategies in the Italian primary sector, the paper analyses the state of the art of the implementation of the main forms of deepening strategies by the wine producers using Census data and a specific direct survey.

◦Findings (mandatory)

The paper highlights how the level of implementation of certain deepening strategies is still very far from its potential extent. The findings help to understand that the difficulties in filling this gap are basically due to both the hesitancy with which a very tradition-driven production sector approaches innovation and the structural problems of the sector.

Key words: multifunctional diversification, deepening strategies, direct sales, e-commerce, wine market (maximum 5)

1. INTRODUCTION

The wine sector is going through a particularly delicate period, in which consumer preferences and policy scenarios force towards a dynamic and continuous redefinition of skills and priorities for keeping and gaining competitiveness in a globalized market. In this complex framework, wineries often need to reshape their strategies focusing on a wider range of activities not only linked to wine production but also to other products and services and to distribution and commercialization aspects. Within this context, the definition of multifunctionality and the relevance of multifunctional diversification become more and more important for the understanding and the exploitation of all the strategic opportunities available for agriculture as a whole and specifically for wineries.

The paper presents a reflection on the applications of the multifunctional approach, focusing on the *deepening*, *broadening* and *regrounding* strategies (as defined by the Van der Ploeg “Triangle”) implemented by Italian farmers, followed by a specific analysis of the deepening strategies developed by the wine producers using Census data and a direct survey. The hypothesis is that such strategies are not fully implemented to their maximum potential by the farmers, mostly because of structural problems and a lack of awareness by the managers. In order to shed light on the accuracy of such hypothesis, the analysis will try to answer the following questions:

- What is the state of the application of deepening, broadening and regrounding strategies in the Italian wine sector?
- Among the deepening strategies, what is the role currently played by direct selling and e-commerce? And what are the possible future developments of such instruments?

In the conclusions, the answer to these questions will help in underlining how the application of these strategies might help the wineries to maintain themselves competitive in the market and, at the same time, create new values and positive externalities for the society.

2. LITERATURE AND ANALYTICAL MODEL

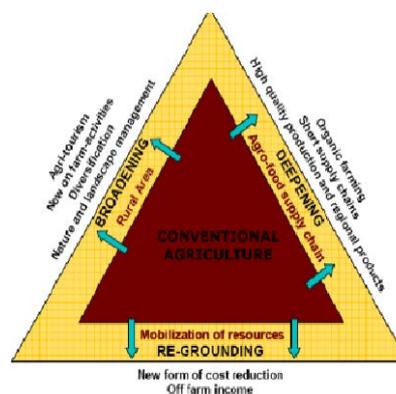
Traditional agricultural activities often seem inadequate to meet the economic needs of the farmers and a growing consumer demand that is increasingly focused on quality and food safety issues. In recent years, farmers have been working in a constantly changing socio-economic context that created confusion in the agricultural sector, especially for the definition of entrepreneurial choices. Farmers have to coexist in a new international scenario where the main drivers, including the new reformed CAP (Common Agricultural Policy), give a central role to the concept of agriculture multifunctionality. Agriculture must be considered as a whole, taking into particular consideration the implications that it has on society, the environment, food security and rural development. One of the most important definitions of multifunctionality is the one suggested by OCSE: “beside food and fiber supply farming can also change the landscape, provide a sustainable management of the environment through land conservation, a sustainable management of natural resources, biodiversity preservation and the preservation of socio-economic life in rural areas” (OCSE, 2001). From this definition, we can infer that agricultural activities give rise to combined products and helps to achieve, at the same time, social objectives. Within this concept, the European Union recognizes the fundamental connections between agriculture and sustainability, food security, territorial balance and food supply. Moreover, the European Commission, in its documents, acknowledges that the multifunctional role of agriculture can be ensured only with government support, which is warranted by the so-called “European agricultural model” that is characterized by an agriculture with peculiar elements, such as small scale farms, family run farming system and territorial integrations (Council Decision 20/2/2006 about UE strategic guidelines for Rural Development 2007-2013).

In 1998 the European Union funded a study (UE IMPACT Study) aiming at underlying the extent of diversification in EU farms. From that moment, numerous studies have been carried out on this topic (Marinelli and Menghini, 1996). Among these, a particular relevance is given to the design of the so-called “Value Triangle in Modern Agriculture” by Van Der Ploeg (Van der Ploeg et al. 2002,

Menghini and Marinelli 2011, Casini et al. 2012). At the base of the model there is the thought that conventional agriculture is not capable any more to face the new agricultural system, therefore a change in the farming activities is needed. Keeping traditional agriculture as the core of the agricultural model, Van der Ploeg triangle system shows the development of agriculture along three different feasible routes for the farms. These routes, that are outlined in Figure 1, are defined as follows:

- *Deepening*: it mainly refers to non-conventional new activities to be integrated in the conventional agriculture system, a reorganization of the production with more complexes and integrated practice, the innovation of the product and the care of the qualitative aspects.
- *Broadening*: it mainly refers to the development of no-food production activities that reflect new market requirements and could create a new income source. An example is using the farming structures as “farm holidays”.
- *Regrounding*: it mainly refers to all non-agricultural activities, which are however integrated and complementary to the main agricultural one. The purpose is to provide alternative chances of employment.

Fig. 1: Van der Ploeg’s “Value Triangle in Modern Agriculture”



Source: Van der Ploeg et al. 2002

Beside the strategic use that some Countries have done of this approach in the international arena (Burrell 2002, Anderson 2000), what is relevant is the acceptance of a new agricultural “status” and the shift towards a new paradigm in which agricultural policies take into account the resizing of the sector in the economy and the fact that agriculture represents the main provider of leisure services, environmental goods, rural traditions and many others secondary products that are all associated to multifunctionality (Blanford et al., 2002).

In particular, certain activities that fall within the range of deepening strategies – such as direct selling or e-commerce – play a significant role because of the value added redistribution mechanism that they create within the value chain. Their relevance is even more evident in chains that are usually characterized by intermediaries and distributors that often act as price makers and concentrate higher mark ups towards the end part of the value chain creating long term survival issues for local production systems. Moreover, such activities can be seen as pivotal in the strategic rethinking of the wine production system as they require an attitude towards innovation that invests the available human resources and their set of skills, particularly involving the newer generations.

3. THE ITALIAN SITUATION

Multifunctional diversification holds a relevant position in the primary sector in Italy and this has also been recognized by policy makers. As a matter of fact, the 6th Agricultural Census of 2010 was improved with a series of new questions in order to gain information on the importance of multifunctionality and diversification at farm level, including data on the level of computerization, the use of internet, the creation of a web-site and/or of a web page and the creation of an on-line shop. This updating allows for a specific analysis of the diversification strategies at farm level, with a particular focus on the deepening, broadening and regrounding strategies.

In terms of multifunctional diversification, it is interesting to analyse what activities have been carried out at farm level to increase their opportunities of remaining competitive (Table 1).

The data show that 4,7% of the farms adopts at least one strategy for the diversification of their agricultural activity. The most relevant strategies are the organization of farm holidays (broadening), vertical integration of the production process (deepening) and subcontracting (regrounding). Regrounding strategies are the most widespread as they concern more extensive forms of integration between the farms and the local rural environment. It must be pointed out that the direct selling to the consumer (at farm level, out of the farm and through e-commerce), that is part of the deepening strategies, will be taken into account in the following section of the paper.

Table 1: N. of farms that adopted multifunctional diversification strategies

Total n. of farms in Italy		1.620.884
Total n. of farms with profitable activities linked with the farm		76.148
% of farms with profitable activities on total n. of farms		4,70%
Broadening strategies	Farm holidays	19.304
	Recreational and social activities	2.253
	Educational farm	2.382
	Handicraft	660
	Total n. of farms for broadening strategies	24.599
Deepening strategies	First processing of agricultural products	8.344
	Processing of vegetal products	7.983
	Processing of animal products	9.653
	Total n. of farms for deepening strategies	25.980
Regrounding strategies	Production of renewable energy	3.485
	Wood processing (cutting, etc.)	2.832
	Acquaculture	348
	Maintenance of parks and gardens	4.505
	Silviculture	6.020
	Production of animal feed	1.016
	Subcontracting for agricultural activities	19.824
	Subcontracting for non- agricultural activities	3.073
Total n. of farms for regrounding strategies	41.103	
Other activities		7.157

Source: our elaboration on 6th Agricultural Census, 2010

Table 2 shows that Italy counts 1.6 million of farms which covers more than 12 millions of hectares, highlighting the strongly fragmented situation of the primary sector, characterized also by an old average age of the owner (ISTAT, 2010). This condition negatively affects the penetration of innovation, as farm size, information and risk propensity (strictly linked with age) are the three key variables that play a major role in the adoption of new technologies by the farmers (Menghini S., 2007). Considering that the use of computers (including the use of accounting softwares and other services) and the web are mostly linked with farm owners belonging to Generation X and Y and that the average farm size is quite small, it is easy to understand why only 3,76% of the total number of farms is computerized, only 1,79% have a web-site or a web page and only 0,67% have an on-line shop.

It must be pointed out, however, that if the data is analysed in terms of Utilized Agricultural Area (UAA) the percentage significantly increase: 18,29% of the UAA is owned by computerized farms, 8,49% by farms that have a web page/site and 2,68% by farms that have e-commerce platforms,

confirming the fact that larger farms in terms of size are more likely to implement new technologies.

Table 2: N. of farms and Utilized Agricultural Area and their relation to computerization, internet and e-commerce in Italy

	<i>Non-computerized farm</i>	<i>Computerized farm</i>	<i>Ownership of a web-site/web page</i>	<i>E-commerce / on-line shop</i>	<i>Total</i>
N. of farms	1.559.939	60.945	29.043	10.865	1.620.884
UAA in hectares	10.504.719,96	2.351.327,86	1.092.034,38	344.465,59	12.856.047,82
% of Farms on Total	96,24%	3,76%	1,79%	0,67%	100%
% UAA on total UAA	81,71%	18,29%	8,49%	2,68%	100%

Source: our elaboration on 6th Agricultural Census, 2010

4. A FOCUS ON DEEPENING STRATEGIES: THE ROLE OF E-COMMERCE IN THE ITALIAN WINE PRODUCTION

The Italian wine sector, as seen before for the entire primary sector, is characterised by a very large number of really small sized farms: the farms with less than 3 hectares do represents the 55% of the total number of farms, covering a little bit more than 17% of the total vine area. The farms with more than 30 hectares represent the 4% of the total number of farms, covering over 24% of the vine area, thus revealing how important they are in the wine sector, in terms of production and thus in the role played in the wine market (Table 3).

Table 3: Number of wine farms and vine hectares in Italy

	<i>Total N. of wine farms</i>	<i>Total vine hectares</i>
0,01 - 0,99 ha	90.829	26.062,44
1-1,99 ha	75.313	44.607,46
2-2,99 ha	47.673	44.294,61
Classes of Utilized Agricultural Area (in hectares)	3-4,99 ha	55.728
	5-9,99 ha	57.686
	10-19,99 ha	34.474
	20-29,99 ha	11.444
	30-49,99 ha	8.444
	50-99,99 ha	4.926
	100 ha and more	2.364
	Total	388.881
		664.296,18

Source: our elaboration on 6th Agricultural Census, 2010

Analysing the data regarding the selling of the farm products, it is possible to have an idea of the role played by the deepening strategies both in the whole agricultural sector and in wine production. Table 4 shows the figures.

Table 4: N. of farms that sells their products to intermediaries or directly to the consumers

	<i>Vegetal products</i>	<i>Animal products</i>	<i>Wine and grape must</i>	<i>Other processed products</i>	<i>Forest products</i>	<i>Total</i>
Total n. of farms	-	-	-	-	-	1.620.884
Total n. of farms that sell their product*	839.008	142.419	31.875	161.488	11.304	1.037.211
- to intermediaries	762.252	118.131	10.936	52.952	6.004	883.434
- directly to consumers	123.828	35.722	26.519	120.765	6.245	270.579

- directly to consumers in the farms	92.111	29.319	23.367	95.551	4.415	210.625
- directly to consumers outside the farms	43.810	8.842	6.939	35.754	2.254	89.668
- with e-commerce	6.667	2.390	2.217	2.778	430	10.175

*all distribution channels: direct selling and intermediaries

Source: our elaboration on 6th Agricultural Census, 2010

Table 5: N. of farms with direct selling and e-commerce on total farms with selling activities (%)

	Vegetal products	Animal products	Wine and grape must	Other processed products	Forest products	Total
% of direct selling on total selling	14,76%	25,08%	83,20%	74,78%	55,25%	26,09%
% of e-commerce on total selling	0,79%	1,68%	6,96%	1,72%	3,80%	0,98%

Source: our elaboration on 6th Agricultural Census, 2010

Among the farms that sell their products (that are in total more than 1 million), 26% of them is selling it directly to the consumers (Table 5), thus representing an important way for the farmers to the vertical integration of the productive process. Among the different products sold directly to the consumers, it is possible to notice how this is relevant for wine and grape must, being the 83.2% of the farms adopting this strategy.

In terms of e-commerce, which it is still a non common method for selling any of the agricultural products, Table 5 shows that again the farms that produce wine and grape must are the ones that mainly adopt this tool, compared to the farms that produce the other commodities.

Going deeper in the analysis for wine production activities, Table 6 shows the number of farms divided into classes of UAA, so classified in terms of their size, that adopt direct selling and e-commerce.

Table 6: N. of wine farms that do direct selling and e-commerce in terms of Classes of UAA

	N. of wine farms with direct selling of wine	% of wine farms with direct selling of wine	N. of wine farms with on-line shop	% of wine farms with on-line shop
0,01 - 0,99 ha	3.519	3,87%	37	0,04%
1-1,99 ha	4.021	5,34%	84	0,11%
2-2,99 ha	2.920	6,13%	102	0,21%
3-4,99 ha	3.932	7,06%	222	0,40%
5-9,99 ha	5.068	8,79%	491	0,85%
10-19,99 ha	3.617	10,49%	513	1,49%
20-29,99 ha	1.294	11,31%	236	2,06%
30-49,99 ha	1.105	13,09%	227	2,69%
50-99,99 ha	660	13,40%	175	3,55%
100 ha and more	380	16,07%	130	5,50%
Total	26.516	6,82%	2.217	0,57%

Source: our elaboration on 6th Agricultural Census, 2010

The data, confirming what already stated for the agricultural sector in general in terms of innovation, highlight the stronger incidence of direct selling for the medium-large farms (larger than 10 hectares) with regards to the smaller ones (less than 3 hectares). The data is even more significant if we consider the adoption of the on-line shop: the smaller wine farms almost have not yet adopted this deepening strategy, but as the size increases the frequency of this selling strategy increases in a very progressive way. It must be said that, however, a wine farm that decides to adopt this direct distribution channel has to put in place a series of steps, including a re-structuring of the web page, if it exists, the creation of a payment system and it must organize the logistics linked

with the shipping, all things that require time and effort, especially for wineries where the owner often has a multi-tasking role.

A recent direct survey conducted by UniCeSV at the end of 2013 supplies more specific information about the relation between wineries and the use of internet for commercial purposes. The on-line survey on a sample of more than 2,000 Italian wine farms returned 258 valid questionnaires. 97% of the respondents declare they have a homepage and use it to promote their business and 21% have an on-line shop. It has to be noticed that this percentages are substantially higher than national available data because of the intrinsic nature of the survey to study those farms which make a larger use of the web (hence the use of an on-line questionnaire).

The characteristics of the wineries with an on-line shop are summed up in Table 7.

Table 7: Characteristics of the wineries with an on-line shop

	N/A	5%
Age of the owner	Under 35	20%
	35 - 60	60%
	Over 60	15%
On-line shop opening	Before 2010	51%
	After 2010	49%
% of on-line sales on total	Under 1%	47%
	1% - 10%	38%
	Over 10%	15%

The data also show a mild generational gap in the use of the web as an instrument for the commercialization of their product; farms that are run by under 35 years old people show a higher predisposition for the use of on-line tools. It is also evident that the opening of on-line services have witnessed a strong growth in the last 3-4 years: since the year of ISTAT Census data (2010), the number of on-line shops for the wineries in the sample has almost doubled. Most of the wineries supply all of their products via e-commerce, with only a small percentage declaring that less than 70% of their product portfolio is available on-line. Nevertheless, on-line sales represent less the 10% of the total business for 85% of the wineries, with 62% of them declaring that e-commerce returns have not varied significantly in recent years.

5. CONCLUSIONS

In the last decade, farmers had to deal with a number of changes (i.e. climate, markets, technologies, etc.) greater than ever before. Even though Italy has a strong tradition in the wine industry, being one of the most important wine producers and wine exporters in the world, its production sector is facing a very hard time since competition is getting increasingly tougher in terms of both supply quantity and prices. In addition, the contraction of the internal demand and the increase of imports have determined issues of unsold production and consequent reduction of prices and profitability. As this situation proves to be not feasible in the long run, the identification of alternative strategies to re-launch the sector is, now more than ever, absolutely necessary. The deepening strategies analysed in this study, and in particular the ones related to the vertical integration of the production process (direct selling and e-commerce), can prove to be remarkably efficient as, by eliminating the intermediaries, they allow to act directly in the creation of value within the value chain and partially rebalance the equilibria towards the production side of the sector. However, for the Italian producers, the data show a situation that only begins to move the first steps in the direction of using the new technologies for commercial purposes. As a matter of fact, direct selling is a traditional and largely spread activity within the Italian wine market, but it is still linked to its historical form related to low cost, bulk wine selling and its potential is far from being completely exploited, especially in association with other farm activities such as tastings and guided tours. On the other hand, setting up an on-line shop is still a difficult step for most of the agricultural producers, even though wine makers seem to be relatively better positioned within the

primary sector. Nevertheless, there are still big issues preventing a wider adoption of such tools. The generational problem seems to be among the most important aspects, together with an attitude towards these kinds of innovations that is also naturally linked with the size of the farms. So, basically, the elements that keep the Italian system from evolving more in this direction seem to be mainly structural and aggravated by a wine tradition in entrepreneurship that opens up at a slow pace towards new tools. Wine producers must bear in mind that a new segment of consumers has appeared in the market: the Millennials, the “internet generation”, who communicate, buy and learn using the web. In this sense, the creation of web pages/web sites by wine farms and the introduction of on-line shops represent their keeping pace of the times and being able to reach these “new” consumers in the way they like and use the most.

In conclusion, the study confirmed that the image of an Italian wine production sector composed mainly of “very good producers but not good enough sellers” is not completely wrong (Menghini, 2007). Anyway, the first steps have been clearly taken in one of the “new” market directions, and it is a matter of time needed to deal with a few cultural and traditional entrepreneurial attitudes that might prevent the sector from being up-to-date and ready to face the current and evolving challenges.

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Supply Chain Analysis of the German Bulk Wine Market

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Abstract

◦Purpose:

The bulk wine trade plays a very important role for the wine business in Germany as it covers a large quantity of the market. The aim of this study is to contribute to the understanding of the German bulk wine market complexities and the long-term development, focusing on the period 2000-2012.

◦Design/methodology/approach:

The study is based on an exploratory analysis about the trade flow of bulk wine. A new database of the bulk wine transports in the Rhineland-Palatinate region in combination with official statistics provide a detailed insight into the structure and changes of the market.

◦Findings:

The trade flow of the transported bulk wine volume shows different developments within the wine-growing regions. Structural changes on a long-term basis are motivated by the improvement of wine quality management requested by the customers and successful strategic management of the companies. The concomitant creation of a two-step-trade-model reflects the intensive networking including a division of labor and as such represents a concentration process in the German wine business. Vintage-related short-term variability, however, doesn't show a great impact on the trade flow organization of German bulk wine.

◦Practical implications:

The detailed overview about the development of the bulk wine market is interesting for all managers concerned as well as politicians to assess the competitiveness of their own or the domestic wine production regarding prospective strategic decisions.

Key words: Supply chain, bulk wine market, trade flow

1. Introduction

The recent development of the international wine trade clearly shows the great importance of the bulk wine market, the section with the highest increase in the wine business (Mariani, et al., 2012). The same goes for Germany where we find a specific and unique structure of the wine market. First of all Germany is known for a relatively high total wine consumption which is actually about 20 million hectoliter and with that approximately in fourth place after the USA, Italy and France (Anderson & Nelgen, 2011; Anderson, 2004). Especially the combination of domestic production (ca. 9 million hectoliters in 2012), a significant import rate (ca. 14.9 million hectoliters in 2012) and remarkable export rate (ca. 3.9 million hectoliters in 2012) is specific for the German wine consumption (Deutsches Weininstitut, 2013). The wine trade in general is improved by a free market without trade restrictions or taxes (Europäische Gemeinschaft, 1992). This open market, however, increases the competition between the domestic wine production and the imported products, especially in the low price segment mainly dominated by bulk wine. According to current estimations this low price segment in the German retail trade is up to 10.8 million hectoliters (of that 5.7 million hectoliters in discounters) reaching approx. 51 % of all sales (Deutsches Weininstitut, 2013). This enormous share illustrates the great significance of the bulk wine market for the German wine business. Furthermore, the bottling activity of imported bulk wines in German wineries and the re-export of bottled wine have become increasingly important (Rheinschmidt, 2014). Nevertheless, the internal structure of the bulk wine market is little known and there are only few studies because of very limited data available. For Germany a new database now offers the possibility to bring some more light into this complex submarket. The detailed information about the bulk wine transports in the land Rhineland-Palatinate covers an overwhelming market share regarding to the high wine production in this region (ca. 66 % of the total wine production in Germany) and the seat of some key companies in terms of distribution (Deutsches Weininstitut, 2013; Weinwirtschaft, 2014). Hence, the analysis of the bulk wine market in Rhineland-Palatinate may reflect the development of German wines in the low price segment with reference to trade activity, substitutability and other influences.

2. Methodology

This study analyses the growth of the German bulk wine market with a focus on the trade flow in the Land Rhineland-Palatinate. The data source is a data base on transfer documents of bulk wine transports over the period of time from the year 2000 to 2012. According to the EU regulation no. 439 it is obligatory to use these papers for all transports of wine, must and grapes (Europäische Gemeinschaft, 2009). The documents are consecutively numbered and collected by the vineyard register keeping chamber of agriculture. Responsible for the control and data maintenance is the national chemical investigations office (Landesuntersuchungsamt). The information in the transport form is very detailed and gives an exact overview of the sending and receiving company, their address, the transport date, the volume, the quality level, the variety, and many other factors. For reasons of data privacy protection the data base provided for this study was anonymized and categorized before. This analysis combines furthermore the trade data with the official statistics of the German wine business such as the yield or grapevine area. The data of the quality control tests (Amtliche Qualitätsweinprüfung) were also provided by the chamber of agriculture in a detailed but anonymized and categorized data base.¹ To illustrate the long-term development of the market this analysis is based on annual data sets.

¹ It is a legal requirement that all wines with a quality level of at least quality wine have to pass an examination before coming into market which is carried out and recorded by the chamber of agriculture (Landwirtschaftskammer) (§§ 19 ff WeinG).

In the following presented some selected key findings of a comprehensive exploratory study are presented. The results focus on the supply chain and organization of the bulk wine trade ignoring the value and pricing effects. Although the bulk wine prices are very important and well recorded there might be a time lag between the contract conclusion and the registered transport. Hence, the bulk wine transport data do not give information about the value of the traded quantities in the short-term. Therefore the value aspect was not included into this analysis.

3. Results

Over the period of this analysis since the year 2000 the traded bulk wine quantity measured by the transfer documents shows a steady decline. The aggregated data on full-year basis do not show any significant influence of the vintage-related yield and the traded bulk wine quantity. The yield of vine grapes over the period of the years 2000 to 2012 was in average about six million hectoliters of must in all vine growing areas in Rhineland-Palatinate together. Excluding the harvest in 2010 the wine production was relative stable.² The transportation documents show a volume of traded bulk wine with nearly the same amount. But taking into account that a certain quantity will be transported several times during the production process, the total trade volume contains some redundancy. To exclude these multiple census the traded volume can be differentiated by form of the company. The real bulk wine quantity comes only from wine-growing estates including cooperatives and producers' association (see "Trade Volume (Producer)" in Fig. 1). This trade course shows, first, less fluctuation than the yield and, second, also a declining development. Nevertheless it is noticeable that in 2012 almost 62 % of the grape harvest was traded on the bulk wine market. In addition, the differentiation between the growing areas gives us the information that this declining is mostly located in the area Pfalz, followed by the Mosel. The biggest region Rheinhessen, however, had a constant amount of bulk wine production. The different developments in these three major wine-growing areas in terms of transported bulk wine indicates that there is a structural change in the market until the year 2000.

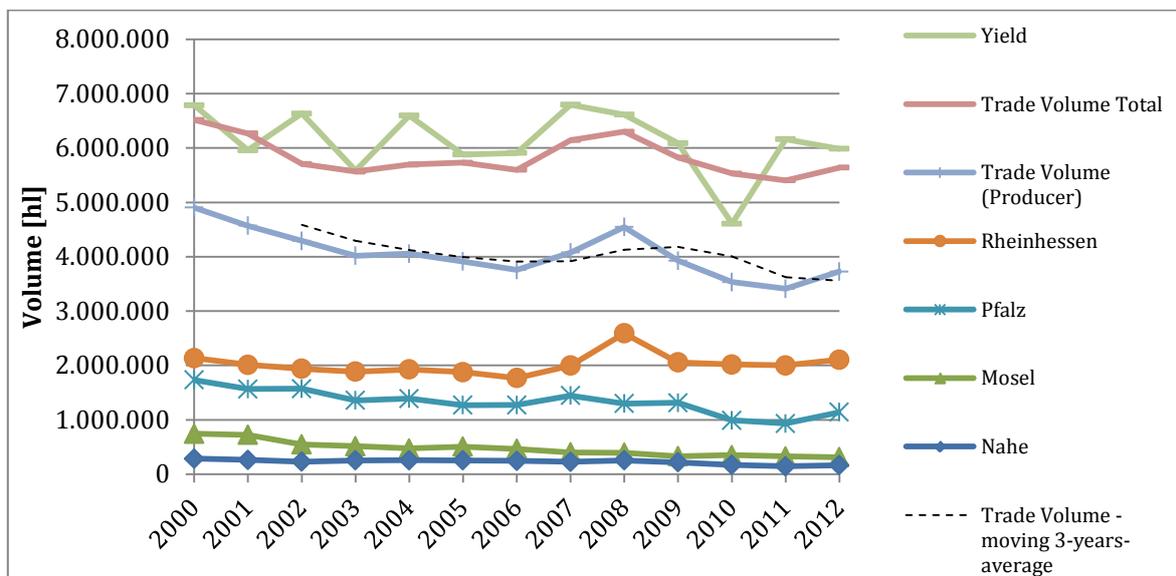


Figure 1: Supply of bulk wine by growing area

² For this analysis the yield of must was chosen instead of the statistical wine production because the latter contains already some bulk wine transports in form of must and would bias the results.

Especially in Mosel and Palatinate the traded bulk wine volume was continuously declining, but for different reasons. At the Mosel we have at the same time a significant reduction of vineyards followed by a decline of the whole production volume. The reduction of vineyards however is a specific phenomenon in this region because of the terroir and the difficulties handling steep slopes. But the decline in traded bulk wine is bigger than the reduction of vineyards so there has to be at least a second reason for this decrease. Even more significant is the development of the region Palatinate. While the acreage and the average production remain stable, there is a considerable reduction in traded bulk wine. This leads to the hypothesis, that successful wine-growing wineries increasingly keep their yield producing more own-labeled wine instead of selling the wine on the bulk wine market. This might to be discernible in changes of bottling activity by producers (Erzeugerabfüllung) recorded by the quality control tests of quality wines (Amtliche Qualitätsweinprüfung). To test this assumption the data of the quality wine certification were included in this analysis.

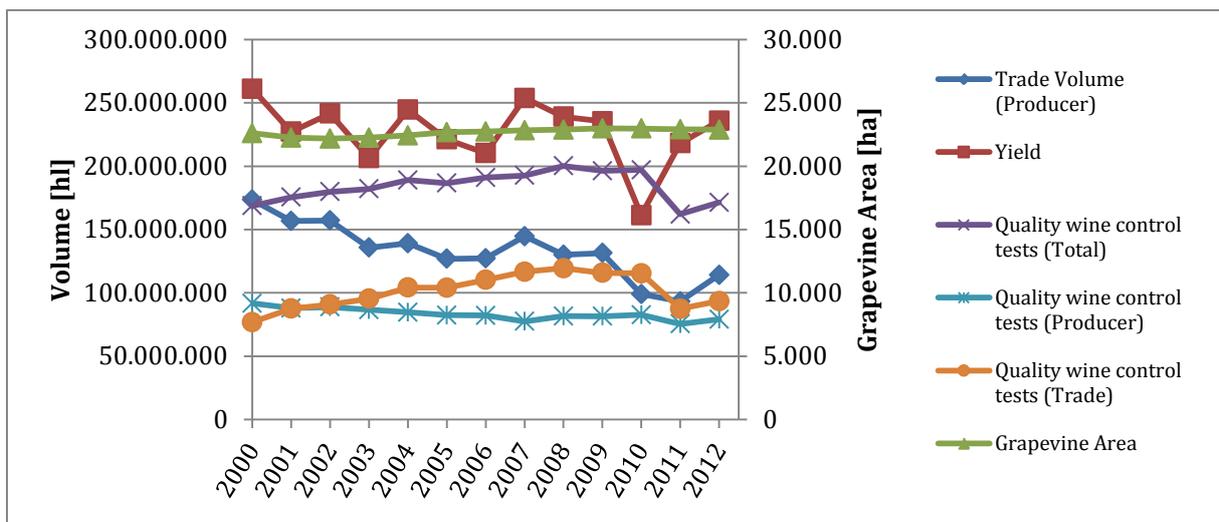


Figure 2: Development of the growing area Palatinate

Over the analyzed period the volume of certified quality wine coming from non-wine-growing wineries in Palatinate increased and at the same time the quantity of quality wines from producing wineries remained constant. Hence, the hypothesis of more bottling by the producer (Erzeugerabfüllung) has to be rejected first. The decreasing development of transported bulk wine conflicts with the increasing volume of quality wine by non-wine-growing companies. Taking into account, however, the entry of the bulk wine trade data there opens the possibility of the influence of successful wine-growing wineries by definition of the categories. The differentiation between wine-growing winery and wine-buying winery is linked to the amount of wine production from self-produced grapes or else bought grapes or wine. Depending on the vintage and the demand of their costumers some wineries might switch the category from one year to another. Secondly, some successful wine-growing wineries separated their wine production and range into two companies, one for wines from self-produced grapes and one for additionally bought wines or grapes. This is a distinct tendency especially in the Palatinate region according to experts' assessments. But for data protection reasons it is not possible to quantify this phenomenon statistically so far.

In addition another factor has to be taken into account regarding the data collection at the very beginning. In principle it is a legal requirement to have a transportation document for any bulk wine (grape or must) transfer, with one exception: for transports of unfermented grapes, must or mash from the vineyard to the winery within a radius of 40 kilometers: it is recommended but not necessary to have a transportation document, according to the EU-regulation No. 436 (Europäische Gemeinschaft, 2009). In several situations this exception may extended up to a

radius of 70 kilometers which covers a large area of the whole wine-growing region. Therefore the declining trend of the bulk wine trade may also be a consequence of more grapes and must transports without documents.

The structural change in the wine-growing regions becomes even clearer looking at the destination of bulk wine transports (Fig. 3). It is significant that Rheinhessen is not only the most important production area for bulk wine but also the area where since 2004 the most consignees for the bulk wine transports directly from the producer are located, very closely followed by the Mosel area. Over the analyzed period the development of the consignee companies in Rheinhessen remained quite stable, while the tendency at the Mosel was slightly decreasing. The demanded bulk wine volume by companies in the Palatinate area, however, was still declining and recently reached the level of insignificance.

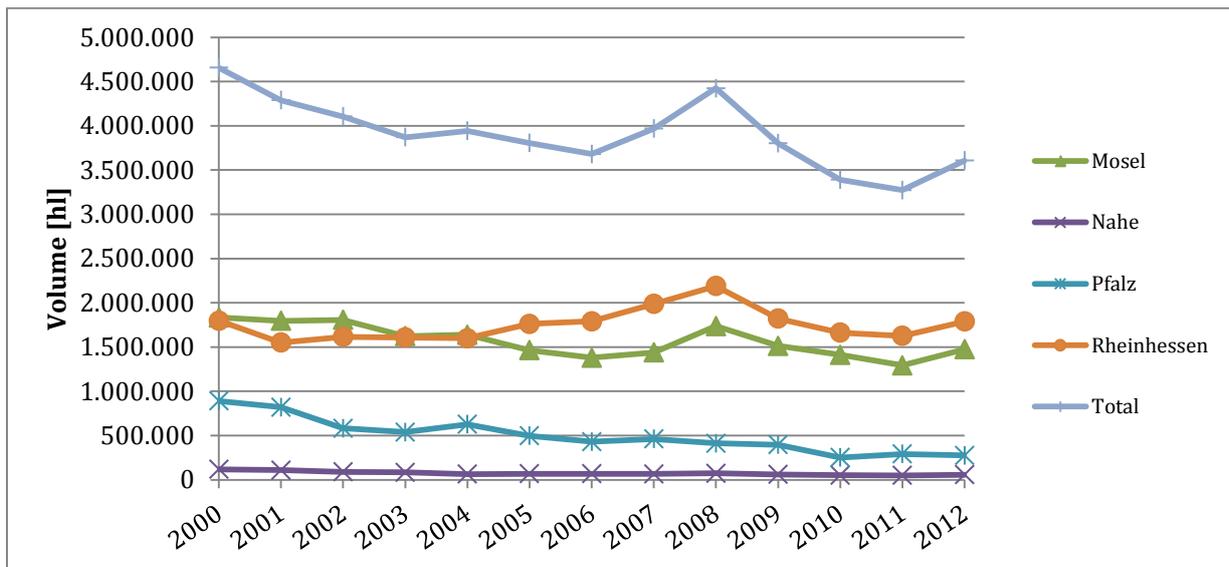


Figure 3: Consignees of bulk wine by growing area

While the total bulk wine trade volume coming from wine-growing wineries (and cooperatives) has been declining since the year 2000, the trade volume between non-wine-growing wineries is rising significantly (see Figure 4). Per definition non-wine-growing wineries do not have own vineyards and grape production and therefore they are dependent on buying wine (or grapes) on the bulk wine market. Classically these firms are acting as demander on this market. It is remarkable that these companies are also acting increasingly as supplier for wine.

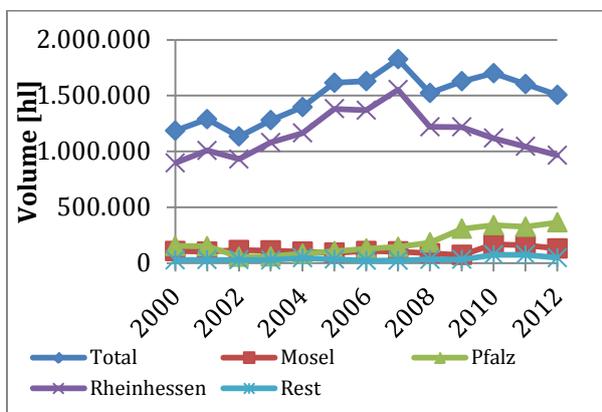


Figure 4: Internal trade flow of wineries by supplying area

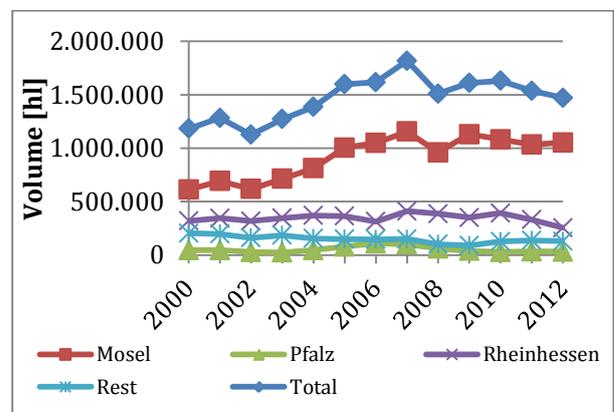


Figure 5: Internal trade flow of wineries by destination area

The most important supplying wineries are located in the Rheinhessen area. In fact this bulk wine volume amounts up to 85 % of the whole trade volume between non-wine-growing wineries until 2007. With the year 2008 also wineries in the Palatinate area participate in this intra-wineries-trade and the share of Rheinhessen is decreasing. All other regions do not have a significant influence on this development. The destination of this internal trade is first of all located in the Mosel region, followed again by companies in Rheinhessen (see Figure 5).

Bringing together both trade flows, first from wine-growing wineries and second the internal trade of non-wine-growing wineries, it is obvious that a clear supply chain structure of a large amount of bulk wine has developed. The most important volume of bulk wine is produced by vine-growers in the Rheinhessen area. These wines are given either directly to a bottling winery (mostly located at the Mosel) or they go first to a wine-making winery (mainly in Rheinhessen) and in a second step to the bottling winery. This two-step-production-model has become more and more important for the German wine business during the last decade and was the only growing segment on the bulk wine market. Recently in 2012 the most important trade flow is composed of 0.8 million hectoliters bulk wine produced by vine-growers in Rheinhessen and transported directly from the producer to wineries at the Mosel and 0.67 million hectoliters bulk wine coming from vine-growers in Rheinhessen and fermented in "service-wineries" in Rheinhessen and then bottled at the Mosel. In total, this two trade flows cover ca. 70 % of the bulk wine volume grown in Rheinhessen or almost 25 % of the yield in the whole Rhineland-Palatinate region.

4. Implication and Conclusion

The analysis of the bulk wine trade in Rhineland-Palatinate shows first of all little importance of vintage related variability which obviously can be balanced by storage. Even more conspicuous is the structural change within the several wine-growing areas with very different alignments. Especially the apparently paradox development in the Palatinate region may describe an improvement in wine quality at the same time as growth of many successful wine-growing wineries. On the other hand the main trade flow of German bulk wine is highly concentrated within Rheinhessen (production) and Mosel (bottling). This tendency is dominated by a few leading non-wine-growing wineries (Weinwirtschaft, 2014). The structural change in these areas is still an indicator for successful strategic company management. Especially the development of the two-step-production-model and the formation of so-called "service-wineries" are congruent with the assumption of more grape transport (without transportation documents). The main business of the "service-wineries" is the real wine-making process, while the second wineries are more specialized in bottling and distribution. On the one hand this represents a classical division of the workflow and specialization leading to a better economic benefit because of economies of scale. On the other hand there is a second enological reason in terms of wine quality. In the past the quality of bulk wines was very heterogeneous relating to the vintage and winemaking process. To guarantee a stable and good wine quality even in the low price segment it is the best to control the production process from the very beginning. Therefore the wineries turned to buying grapes instead of already fermented wines and conduct the real wine production with application of new technologies and well educated know-how. Insourcing the whole production, however, requires new logistical structures because of the huge production volume. Furthermore, the concentration of the bottling activity of bulk wine in the Mosel area is congruent with the international development. Even worldwide there is the tendency to focus the bottling process into the final market (Mariani, et al., 2012).

The motivation to improve the wine quality in this low price segment and the sustainable management of the business at the same time might be initiated by the most important customers of these low price wines: the retail sector, notably the discounters. Because in

Germany a substantial amount of wine is sold in the retail sector (Deutsches Weininstitut, 2013) the quality improvement demanded by the quality management of the discounters has a very positive effect on the image of German wines in general. This connection between the wine quality in the retail sector and the structural change in the bulk wine market, however, is based on long-term market observation of experts and is not statistically valid so far.³ The finding match also with the development on the international wine market, where the rising bulk wine importance is driven by changes in consumer demand or establishing of new organization schemes as a result of seeking cost reduction and environmental sustainability (Mariani, et al., 2012). To support the results of this exploratory analysis this study will prospectively replenished with a qualitative survey in the form of experts interviews and also a statistical time series analysis.

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³ Source: Unpublished experts' interviews.

U.S. Wineries Use Social Media to Engage Consumers, Improve Brand Image and Increase Revenue

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Purpose: The objectives of this research are to examine: the social media used by wineries, how wineries use social media, and how wineries perceive social media impacts their brand image and revenue. In addition, this research examines differences in social media behavior between larger and smaller wineries.

Methodology: This research uses a survey instrument to conduct a telephone interview of 140 coastal wineries in California. Most of the wineries were from San Luis Obispo and Santa Barbara counties. Questions concerning social media use are examined and comparisons are made using chi-square tests between the larger wineries that produce 20,000 or more cases and the smaller wineries that make less than 20,000 cases. The wineries that produce more than 20,000 cases are 24% of the sample.

Findings. This research shows that wineries believe there is value in using social media. Over three-fourths believe that social media is at least somewhat important to winery sales and attracting visitors to their tasting rooms. The top 10 social media/technology options used by the wineries are: Facebook, winery website, emails, sales on website, Twitter, Yelp, Instagram, a winery blog, YouTube and Pinterest. Larger wineries use more types of social media and technology and observe more benefits from using them. Facebook and websites are perceived to provide the most positive impact on brand image and winery revenue for all respondents. Two-thirds of larger wineries perceived a positive brand image impact from Twitter.

Practical implications: The implications of this research are that wineries will improve their brand image and revenue by developing a strong social media marketing campaign with a strong website. Additional research will be conducted among more wine regions.

Key Words: Winery Social Media, Facebook, Winery Website, Brand Image

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U.S. Wineries Use Social Media to Engage Consumers, Improve Brand Image and Increase Revenue

1. BACKGROUND

Wine is an experiential product. Further, it is a fragmented category with over 3,600 individual brands (Howard, 2012). For an individual brand to attract consumers and retain consumers it is important to engage them and add value. One way to engage consumers is to interact with them. The wine industry is an industry that is embracing social media (Vinography, 2012). Wineries are using social media to reach their consumers and reveal their brand quality and personality (The Tribune, 2011).

Social media use has surged in the past decade. According to PEW Research 57% of US adults use Facebook and 64% of them use it daily (Smith, 2014). Patrick Bouquet of Able Social Media Marketing conducted a survey of 165 US wineries in 2012 (Bouquet, 2012). The Abel research revealed that 94% of US were on Facebook.

The objectives of this research are to examine: the social media used by wineries in the coastal San Luis Obispo region, how they use social media, and how they perceive social media impacts their brand image and revenue. Further, differences are examined between larger and smaller wineries.

2. METHODOLOGY

This research uses a survey instrument to conduct a telephone interview of 153 coastal wineries in California during October and November of 2013. Most of the wineries were from San Luis Obispo and Santa Barbara counties. All wineries in the San Luis Obispo County were contacted and wineries in Santa Barbara County, the adjoining county, were contacted when San Luis Obispo County wineries did not respond to the phone interview request. Questions concerning social media use are examined and comparisons are made using chi-square tests between the larger wineries that produce 20,000 or more cases and the smaller wineries that make less than 20,000 cases. The wineries that produce more than 20,000 cases are 24% of the sample. There were 140 usable responses from wineries that responded to the number of cases produced.

3. RESULTS

3.1 Winery Demographics

Average case production for the sample is 21,943 and the respondents produce a total of 3.07MM cases. The average case production for the larger wineries is 74,242 and the average production for the smaller wineries is 5,813. The average number of brands for both the larger and smaller wineries is 3.11. The total number of brands represented by the wineries interviewed is 473. Approximately half of the wineries, 53%, report using sustainable production methods and 24% are certified sustainable. Organic and biodynamic production are used by 16% and 10% of respondents. Conventional production methods are used by 47% of respondents. Most of the wineries sell wines in the ultra premium price ranges. The larger wineries are more likely to sell lower priced wines in the ranges \$9.50 through \$23.49. However, most of the wineries interviewed sell wines priced above \$23.50.

3.2 Social Media Usage

All respondents engage in some type of advertising. Most respondents, 95%, use social media. The larger wineries were more likely to use newspapers, radio and TV advertising (Table 1).

Table 1: Media Used	Larger (%) (N=34)	Smaller (%) (N=106)	Total (%) (N=140)	P-Value ¹
Social Media	100.00%	93.50%	95.00%	0.132
Website	100.00%	99.10%	99.30%	0.577
Newspaper	48.50%	22.40%	28.60%	.004**
Radio Advertising	48.50%	18.70%	25.70%	.001**
TV Advertising	21.20%	6.50%	10.00%	.014**
Other	69.70%	84.10%	80.70%	0.143

¹Chi-square test ** Significant at .05 level * Significant at the .1 level

The top 10 social media options used by the total sample are: Facebook, winery website, emails, sales on website, Twitter, Yelp, Instagram, a winery blog, YouTube and Pinterst (Table 2). Large wineries are more likely to use sales on the website, Twitter, Instagram, Yelp, YouTube, Pinterest, TripAdvisor, LinkedIn, FourSquare, sales through Amazon, a QR code, and an app.

Table 2: Social Media Used	Larger (%) (N=34)	Smaller (%) (N=106)	Total (%) (N=140)	P-Value
Facebook	100.0%	94.4%	95.7%	.164
A Winery Website	97.0%	86.9%	89.3%	.103
Sales on the website	90.9%	61.7%	68.6%	.002**
Twitter	81.8%	52.3%	59.3%	.003**
Emails to customers	78.8%	68.2%	70.7%	0.244
Instagram	72.7%	38.3%	46.4%	.001**
Yelp	69.7%	48.6%	53.6%	.034**
YouTube	57.6%	26.2%	33.6%	.001**
Pinterest	48.5%	20.6%	27.1%	.002**
Winery Blog	42.4%	35.5%	37.1%	0.473
Trip Advisor	36.4%	16.8%	21.4%	.017**
LinkedIn	24.2%	10.3%	13.6%	.041**
Foursquare	24.2%	10.3%	13.6%	.041**
Google+	21.2%	10.3%	12.9%	.101
Sales through Amazon	15.2%	5.6%	7.9%	.075*
A QR code	15.2%	4.7%	7.1%	.041**
An App	15.2%	5.6%	7.9%	.075*

Groupon	9.1%	2.8%	4.3%	.119
Tumblr	6.1%	3.7%	4.3%	.565
Text messages	3.0%	2.8%	2.9%	.946
Other	93.9%	96.3%	95.7%	.258

¹Chi-square test ** Significant at .05 level * Significant at the .1 level

Wineries post on social sites 4.18 times per week. Larger wineries engage with their consumers more often, 6.27 times each week. Smaller wineries post 3.47 times each week. Posting pictures, stories and videos are the top three uses of social media by wineries (Table 3). Larger wineries are more likely to post stories, post videos, respond to negative feedback, ask fans and followers questions about themselves, ask fans or followers to post ratings of their wines and create contests to increase interaction.

Table 3: How Use Social Media	Larger (N=34)	Smaller (N=106)	Total (N=140)	P-Value ¹
Post pictures	100.0%	92.5%	94.3%	0.106
Post stories	93.9%	76.6%	80.7%	.028**
Post videos	84.8%	55.1%	62.1%	.002**
Respond to positive feedback	63.6%	45.8%	50.0%	0.073*
Respond to negative feedback	60.6%	35.5%	41.4%	.011**
Ask fans/followers questions about themselves	57.6%	30.8%	37.1%	.005**
Ask fans/followers to post ratings of wines	48.5%	15.9%	23.6%	.000**
Follow back and interact	45.5%	32.7%	35.7%	0.182
Make special offers	45.5%	36.4%	38.6%	0.353
Give price discounts	36.4%	25.2%	27.9%	0.212
Encourage employees to take photos of guests with their own devices to encourage sharing	33.3%	28.0%	29.3%	0.559
Link one social site to another social site	33.3%	38.3%	37.1%	0.604
Create contests to increase interaction	30.3%	13.1%	17.1%	.022**
Use the winery's device to take photos of guests and upload on your social media site(s)	27.3%	26.2%	26.4%	0.9
Offer volume discounts	18.2%	14.0%	15.0%	0.558
Offer incentives for reviews	12.1%	6.5%	7.9%	0.298
We do not use social media	0.0%	3.7%	2.9%	0.26
Other	90.9%	92.5%	92.1%	0.349

¹Chi-square test ** Significant at .05 level * Significant at the .1 level

3.3 Social Media Impact

Most wineries believe their Facebook and winery website have a positive impact on their brand image (Table 4). More than a third of the wineries also perceive website sales, emails to customers, Yelp, and Twitter have a positive impact on brand image. Larger wineries use more social media and are more likely to indicate that their Facebook, Twitter, Instagram, Pinterest, LinkedIn, and sales through Amazon have a positive impact on their brand image than smaller wineries. Further, most wineries believe Facebook, winery website and website sales have a positive impact on revenues. More than a third of the wineries also perceive emails to customers and Yelp have a positive impact on revenue. Larger wineries are also more likely to indicate Twitter, Instagram, Pinterest, sales through Amazon, google+ and an app have a positive impact on their revenues than smaller wineries. The second most important social media for larger wineries' brand image is Twitter and half of the larger wineries perceive a positive impact on revenue from Twitter.

Table 4: Positive Impact on..	Brand Image Larger (%) (N=34)	Brand Image Total (%) (N=140)	Revenue Larger (%) (N=34)	Revenue Total (%) (N=140)
Facebook	97%*	88.6%	78.8%	72.9%
A Winery Website	63.6%	68.6%	63.6%	62.9%
Sales on the website	39.4%	42.9%	57.6%	50.7%
Emails to customers	42.4%	40.7%	42.4%	42.9%
Yelp	39.4%	43.6%	45.5%	40.0%
Twitter	66.7%**	44.3%	51.5%**	32.9%
Instagram	48.5%**	30.0%	36.4%**	19.3%
Winery Blog	21.2%	27.1%	18.2%	16.4%
Trip Advisor	15.2%	14.3%	18.2%	11.4%
YouTube	27.3%	18.6%	18.2%	10.7%
Pinterest	30.3%**	15.0%	18.2%**	7.1%
Foursquare	6.1%	6.4%	6.1%	5.0%
Sales through Amazon	9.1%*	3.6%	12.1%**	5.0%
Google+	9.1%	6.4%	9.1%*	3.6%
LinkedIn	12.1%	5.7%	9.1%	3.6%
Groupon	3.0%	1.4%	3.0%	1.4%
Text messages to customers	3.0%	1.4%	3.0%	1.4%
An App	6.1%	2.9%	3%*	0.7%
Tumblr	0.0%	0.7%	0.0%	0.7%
A QR code	6.1%	2.9%	0.0%	0.0%
None of the above	0.0%	1.4%	0.0%	2.9%

Chi-square test ** Significant at .05 level * Significant at the .1 level

Most wineries indicate that social media is at least somewhat important for their sales and to attract visitors to tasting rooms (Table 5). Overall, 40% of wineries indicate that social media is extremely or very important for their sales. Further, 44% of wineries with tasting rooms believe that social media is extremely or very important in attracting visitors to their tasting rooms.

	Winery Sales	Attract Tasting Room Visitors
Table 5: Social Media Importance	Total (%)	Total (%)
	(N=140)	(N=133)
Extremely important	10.7%	14%
Very important	29.3%	30%
Somewhat important	38.6%	43%
Not very important	19.3%	11%
Not important at all	2.1%	1%

4.0 MANAGEMENT IMPLICATIONS

This research shows that wineries believe there is value in using social media. Over three-fourths believe that social media is at least somewhat important to winery sales. Further, 82% of wineries with tasting rooms believe social media is at least somewhat important in attracting visitors to their tasting rooms. The top 10 social media/technology options used by the wineries are: Facebook, winery website, emails, sales on website, Twitter, Yelp, Instagram, a winery blog, YouTube and Pinterest.

Larger wineries post more often and use more types of social media and technology. Larger wineries observe more benefits from using social media. Over half of the larger wineries perceive a positive impact on brand image and revenues from Facebook, a winery website, and Twitter. Website sales are perceived to have a positive impact by more than half of the larger and smaller wineries. Smaller wineries should adopt the social media practices of larger wineries to reap the benefits. The implications of this research are that wineries will improve their brand image and revenue by developing a strong social media marketing campaign with a strong website.

Since this research was conducted among wineries in the coastal California region among ultra-premium wineries, additional research among wineries in other regions will be conducted to examine if wineries from other regions have observed similar benefits from using social media.

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**Exploring German Winery Adoption of Web 2.0 Components:
What impact does the size of a winery have on the use of social media and
consumer engagement?**

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ABSTRACT

Purpose: *To analyze the adoption of Web 2.0 by German wineries, as well as to determine the impact of winery size on the use of social media and consumer engagement.*

Methodology: *A content analysis of 208 German winery websites and a statistical analysis of how German wineries respond to customer email requests.*

Findings: *German wineries have a low adoption of Web 2.0 (27%) and the size of the winery does have an impact on the adoption of Web 2.0, since the greater the size of the winery the higher the adoption of Web 2.0 components. Smaller wineries replied faster than larger wineries to customer email requests for wine information.*

Practical implications: *German wineries should acknowledge the influence Web 2.0 components have on wine purchase, gain a better understanding of website, e-commerce, and social media tools, and determine which tools will best complement their wine marketing strategies. The German Wine Institute could play a crucial role by offering training seminars to provide the much-needed education and training for German wineries.*

Key words: social media, Web 2.0, Germany, winery size, consumer engagement

1. INTRODUCTION

Web 2.0 and social media, which can be defined as internet-based applications that are user-generated and allow collaborative sharing of ideas and feedback, such as blogs, online videos and photos, and platforms such as Facebook and Twitter, have proven to be game changers in how companies interact with their customers. Though at first it was debatable as to whether these new platforms were beneficial to businesses in terms of increasing brand awareness and sales, today there are a multitude of examples in various industries showing that if implemented correctly, social media has a positive impact on a company's net results.

One industry in which Web 2.0 and social media has had a large impact is wine. This is because wine is an "experience good" (Storchmann2011), in that most consumers do not know what to expect from a wine before they consume it, and therefore seek advice from experts and friends before purchase. Web 2.0 and social media have become increasingly important as a means to seek and deliver wine feedback.

The adoption of Web 2.0 and social media components varies by winery region. This study focuses on the Germany wine market, and examines how German wineries are embracing Web 2.0 and social media, and what impact the size of a winery has on the use of social media and consumer engagement.

2. LITERATURE REVIEW

Statistics from Google search engines shows that "wine" is one of the keywords that appear at a higher level than many other consumer products (Rosenberg, 2012). It is estimated that 90% of wine drinkers use Facebook 6.2 hours per week (Breslin, 2013), and Google Analytics (2012) shows that wineries are the third most popular subject on Pinterest. The number of wine blogs has grown dramatically in the past decade, with diverse viewpoints from an estimated 1300 wine bloggers around the world, with the 20 top wine bloggers having a combined audience larger than the successful wine magazine 'Wine Spectator' online (Quint, 2012).

Several documented examples illustrate that both small and large wineries have achieved positive return on investment (ROI) from implementing social media. Pacific Rim Winery in Washington State increased traffic by 7000% to their website, and achieved a 15% increase in revenue with a 73% increase in transactions (Moore, 2012, Emerson, 2012). Constellation, one of the largest wine corporations in the world, has implemented several social media promotions using mobile coupons. A recent example is their use of the app "ShopKick" that consumers accessed while in a store. This resulted in 214,000 consumers reviewing the ad, with 12.5% making purchases, and \$222,000 in projected revenue. The cost of the app ad was approximately \$70,000, realizing a positive ROI (Breslin, 2013).

Web 2.0 and social media has also been adopted by German wineries. In a 2011 study of 324 German wineries, Szolnoki and Taitis found that 96.6% had a website and 49.7% had an online shop. Furthermore, 50% stated they were using social media for private or business purposes or for both, with Facebook being the most common application.

The importance for German wineries to have an online presence and to offer online shopping is underlined by the recent statistics of Eurostat (European Commission's statistical office on

Information and Communication Technology), which demonstrate that Internet use in Germany is with 85% above the European Union average. The study also looked at online shopping patterns and clearly reveals that shopping on the internet has become very popular in Germany: 77% of users bought or ordered goods or services for private use online during the last 12 months (Eurostat, 2012).

Bengtsson *et al.* (2007) studied factors that distinguish adopters of advanced internet-based marketing operations from non-adopters in firms of varying sizes. The findings support the proposition that firm size is positively associated with the adoption of advanced internet-based marketing operations. This led the researchers to the conclusion that larger firms are more likely to start the process of development of internet-based routines earlier compared to small firms.

3. METHODOLOGY

The methodology used for this study was a combination of qualitative and quantitative techniques, and was based on a similar study conducted in the US (Thach, 2009).

The qualitative portion included content analysis of 208 German winery websites. This was accomplished by analyzing the websites to determine: 1) a frequency count of Web 2.0 components listed on the website (e-commerce engine, blog, video, Facebook page, Twitter, Pinterest), 2) whether the websites included a mobile friendly option, and 3) the size of the winery (bottles produced). If the size of the winery was not indicated on the website the winery was called to obtain the information.

The quantitative aspect was an analysis of response rates to an email sent to the wineries to determine how quickly/to what extent they would answer a fictional customer request. The email included the following message in German:

“I’ve had some friends tell me how wonderful your wine is. Can you tell me where I can purchase your wine in Mainz? Thank you so much for your response.”

The number of days the winery took to respond, as well as the response itself was documented in Excel and then subjected to thematic analysis.

The sample was based on a list of 4,589 German wineries producing bottled wine, which was obtained from the thirteen regions of Germany that have promotional wine offices. A decision rule of selecting every 22nd winery was applied to the list. This was verified with a crosscheck from the yearly statistics of the German Wine Institute, and showed that the sample was representative for the German market (German Wine Institute, 2012).

4. FINDINGS

4.1 Results of the qualitative analysis: Content analysis of the winery website

The content analysis showed that 85% of the sample had a website. The cross tabulation with the size of winery demonstrated that the percentage of wineries that have a website grows according to the size of the winery: the bigger the winery the higher the percentage among the wineries that have a website. Furthermore, 39% of the sample had an e-commerce engine,

and it was apparent that smaller wineries had a lower adoption of e-commerce engines than larger wineries.

In terms of Web 2.0 components, the analysis showed that only 27% of the German wineries had adopted these (Table 1). Comparing this to the size of the wineries it showed that the greater the size of a German winery, the higher the adoption of web 2.0 components.

Table 1: Wineries that have Web 2.0 components linked to size of winery (n = 176)

Bottles produced per year	Blog	Video	Facebook	Twitter	Pinterest	Total of Web 2.0 components per bottle categories	Numbers of wineries in the category	% of wineries that have Web 2.0 components within size bracket
0	0	0	0	0	0	0	2	0
< 50.000	1	9	9	1	0	20	77	26
50.001 - 100.000	0	2	6	1	1	10	45	22
100.001 - 150.000	1	1	1	0	0	3	11	27
150.001 - 200.000	0	0	2	0	0	2	3	67
> 200.000	0	5	5	0	0	10	18	56
Don't want to share	0	1	1	1	0	3	20	15
Total	2	18	24	3	1	48	176	27

Only 5% of the websites had been adapted for a mobile device, and of these the highest percentage produced more than 200.000 bottles a year.

4.2 Results of the quantitative analysis: Customer interaction

4.2.1 Response time to customer email

Analysis of response time to the fictional customer email request illustrates that 66.82% of the wineries answered the email, and the average response time was 2.36 days (Table 2).

Table 2: Winery response rate to customer email (n = 208)

	Freq.	%
Customer response rates - overall		
No response to email	69	33,17
Responded in 0 to 10 days	139	66,82
Average days to respond	2,36	NA
Customer response rates - detail		
Respond in less than 24 hours	10	4,8
Respond within 1 day	36	17,3
Respond within 2 days	55	26,44
Respond within 3 days	18	8,65
Respond within 4 days	7	3,36
Respond within 5 days	3	1,44
Respond within 6 days	1	0,48
Respond within 7 days	3	1,44
Respond within 8 days	2	0,96
Respond within 9 days	1	0,48
Respond within 10 days	3	1,44

4.2.2 Response categories to customer emails

The content analysis of the email responses received from the wineries illustrated that four major categories of replies were received:

1. *Place an Order Via Traditional Methods* - 77 wineries (37%) invited the customer to place an order by email/call/fax, after which the winery would send it by mail or deliver it by car. This was the most popular type of response.

2. *Purchase Wine Online* – 35 wineries (17%) encouraged customers to purchase the wine via the winery website (online shop). It is interesting to note that the category that includes the reference for buying the wine via the online shop makes up in total only 17%, whereas the content analysis showed that as many as 39% of the wineries in the sample have an online shop. This means that over 20% of the wineries that do have an online shop overlooked referring to it.
3. *Visit the Winery* – 14 wineries (7%) advised that the wine could only be purchased at the winery and invited the person to visit.
4. *Information on Where Wine Can Be Purchased* - 13 wineries (6%) indicated where the wine could be purchased. Some provided the retail shop information; others sent website links of the stores, or restaurants and bars were listed.
5. *Other* – the remainder of the sample provided one-off suggestions or no suggestions.

4.2.3 Relation response time to customer email to size of winery

The analysis shows that the fastest response rate came from small wineries (< 50.000 and between 50.001 and 100.000 bottles production per year) within less than 24 hours. The same applies for the response rate within a day; the majority was from the smaller wineries (< 50.000 and between 50.001 and 100.000 bottles production per year). Only one winery in the category 100.001 to 150.000 bottles production per year answered within one day (see annex 1 due to the size of the table).

5. DISCUSSION AND CONCLUSION

5.1 Implications of Research

This paper addressed the research question of what impact the size of German wineries has on the use of social media and consumer engagement. The analysis shows that German wineries have a low adoption (27%) of Web 2.0 components and that the size of the winery does have an impact on the adoption of Web 2.0 components, since the greater the size of the winery the higher the adoption of Web 2.0 components.

It is expected that the reason for this is the fact that Web 2.0 components require regular updates with new information (Kaplan and Haenlein, 2010). Larger wineries do have more resources available to implement, monitor and update Web 2.0 components (Bengtsson *et al.*, 2007). In addition larger wineries might also have more financial resources to be technologically equipped with the necessary infrastructure (PCs, mobile devices etc.), have a higher budget to spend on required software, and have the time and expertise to train people on the usage of Web 2.0, whereas this may not be as feasible in smaller family-run wineries.

On the other hand, smaller wineries had the highest response rate to the fictional customer email request, responding within the first 24 hours to one day, verses a slower response rate from larger wineries. This suggests that small wineries may be more nimble because of their size, and able to respond more quickly to customers.

When compared with the results of a similar study conducted in the US (Thach, 2009), the US wineries were faster in their response rates, but more German wineries answered the customer request. In 2009 US wineries had already a higher adoption rate of e-commerce (61%), compared to German wineries (39%) today. Also the adoption of Web 2.0 components is low for both US and German wineries, but it is important to keep in mind the

four year gap between the studies, and it is expected that the US market has by now evolved, thus the analysis would show a different picture of the US market today.

An interesting difference is the fact that German wineries seem to be very eager to ship/deliver the wine directly and to take the order via phone/fax/email rather than mention their online shop, despite the fact that they have one.

Despite the high internet penetration in Germany, the very rapid evolution of social media, smart phones and other technologies, this study shows that adoption of Web 2.0 components by German wineries is very slow and sporadic.

5.2 Managerial Recommendations for German Wineries

There are several managerial recommendations for German wineries. The first is that those without websites and e-commerce engines gain a better understanding of these tools and find solutions for implementation, since they are the tools that today's customers are using. A second recommendation is that German wineries become better acquainted with the concepts of Web 2.0 and social media in order to fully understand its strength and opportunities. A third recommendation is that German wineries should analyze how they can add Web 2.0 and social media as a complementary element to their traditional wine marketing strategy (Armellini and Villanueva, 2011). While it doesn't replace traditional marketing tools, it does provide a new means for brand awareness and customer interaction.

In addition, the German Wine Institute could play a crucial role by offering training seminars to its members (beginners and advanced levels, both in person and via webinar) to provide the much needed education and training for German wineries. This is because, in many cases, social media provides a cost-effective possibility for wineries to build trust and reputation, as well as inform customers and potential customers about their products and promotional events.

5.3 Limitations & Future Research

One limitation to this study was that the fictional customer request was sent on a Saturday and therefore, some wineries may not have opened the email until Monday. Therefore, in future studies similar to this, the timing of the email should be carefully orchestrated. There are also addition opportunities to extend this research by duplicating it in other global wine regions, as well as implementing longitudinal studies to assess the progress in adoption of Web 2.0 and social media components by wineries. An added benefit would be to conduct more studies that calculate the return on investment (ROI) for wineries implementing Web 2.0 and social media.

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7. ANNEX

Annex 1: Correlation between response time to customer email and size of winery

Customer response rate resposne in	Bottles produced per year											Doesn't exist anymore	Don't want to share	% of don't want to share	
	0	<50.000	% of < 50.000	50.001 - 100.000	% of 50.001 - 100.000	100.001 - 150.000	% of 100.001 - 150.000	150.001 - 200.000	% of 150.001 - 200.000	>200.000	% > 200.000				
< 24 hours	0	6	6	3	7	0	0	0	0	0	0	0	0	1	4
1 day	0	19	20	13	28	1	8	0	0	0	0	0	0	3	11
2 days	1	14	15	16	35	5	42	2	67	11	61	0	6	22	
3 days	1	8	9	4	9	0	0	0	0	1	6	0	4	15	
4 days	0	3	3	2	4	1	8	0	0	0	0	0	1	4	
5 days	0	3	3	0	0	0	0	0	0	0	0	0	0	0	
6 days	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
7 days	0	2	2	0	0	0	0	0	0	0	0	0	1	4	
8 days	0	1	1	1	2	0	0	0	0	0	0	0	0	0	
9 days	0	0	0	0	0	0	0	0	0	0	0	0	1	4	
10 days	0	1	1	0	0	1	8	0	0	1	6	0	0	0	
No reply	3	35	38	7	15	4	33	1	33	5	28	4	10	37	
Total	5	93	100	46	100	12	100	3	100	18	100	4	27	100	

A cross-cultural comparison of social media usage in the wine business

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◦*Purpose: A vast number of studies are being published about social media in the wine business, but less is known about their usage comparing different wine producing countries. Therefore, a cross-cultural study was conducted, in which we investigated the use of social media tools by wineries in European and in overseas countries like Germany, Austria, Italy, France, Hungary, UK, as well as USA, Australia, New Zealand, Canada and South Africa.*

◦*Design/methodology/approach: The questionnaire was developed and tested first in Germany. In order to use the question catalogue for this cross-cultural study, it was translated into the official language of the certain country. Using different online survey software, the link of the questionnaire was sent via email and was distributed on social media pages. The response rate varies between 25 up to 427 wineries that participated in the study.*

◦*Findings: This study demonstrates that social media has been accepted and is already widely used as a communication tool in the wine business. A high level of acceptance of social media tools could be observed in each participating country. Facebook is seen as the most important among the available social media tools; however video- and photo-sharing systems are developing rapidly. There is a significant difference between European and overseas countries. Wineries of the latter utilize more frequently social media than those from Europe.*

◦*Practical implications: Social media has been developing very rapidly. Facebook is still the number one tool used, even in the wine industry, but new and innovative platforms occur day by day. Winery owners should be aware of the effectiveness of this modern communication tool, however at the same time they have to define a communication strategy, in which social media is integrated too.*

Keywords: social media, wine, Facebook, Twitter, cross-cultural comparison

1. INTRODUCTION

In recent years, the Internet has developed from a mere source of information into a force that communication experts now call the ‘Social Web’ (Schindler and Liller, 2012). There have been some major recent developments in the field of social media: Facebook, Twitter and other services allow people to remain participants in never-ending conversations. Wine seems predestined to benefit from social media usage in a special way. Wine is a very emotionally loaded product. Anyone who consumes it usually has an opinion, and is often willing to share it with others (Szolnoki et al. 2014).

A vast number of studies are being published about social media in the wine business, but less is known about their usage comparing different wine producing countries. Although there is some wine orientated social media research (Table 1), a cross-cultural comparison between European and overseas countries is still missing. That is the focus of the current paper.

Table 1 Overview of wine related social media studies

Author(s)	Topic	Specification
Yarrow (2008)	Blogs	English language blogs
Thach (2009)	Blogs	USA
Reyneke et al. (2010)	Social Media generally	Bordeaux brands
Init study (2010)	Online community	France
Laverie et al. (2011)	Online community	Theoretical model
Pelet and Lecat (2011)	Online community	Burgundy
Habel and Goodman (2011)	Facebook	Branding, generally
Yarrow (2012)	Blogs	List of wine blogs - international
Lee (2012)	Blogs	International
Vrana et al. (2012)	Blogs	International
Bouquet study (2012)	Social Media generally	USA and France
Wilson and Quinton (2012)	Twitter	English language tweets
Szolnoki et al. (2014)	Facebook	Germany

Furthermore, the penetration of social media usage by winemakers in different countries has not been subject to research until now. Therefore this study had the objective to determine the use of social media by wine producers in different countries and to compare the usage.

2. METHODOLOGY

This study focused on the use of social media by wineries in eleven different countries: Germany, Austria, Italy, France, Hungary and UK from Europe and USA, Australia, New Zealand, Canada and South Africa. The questionnaire is based on previous research on social media in the wine sector. Several questions have been already tested in Germany (Szolnoki et al. 2014) and the questionnaire was supplemented with statements from the Bouquet (2012) study. In order to use the question catalogue for this cross-cultural study, it was translated into the official language of the certain country.

For the recent survey, the link to the online questionnaire was sent via email. Each co-author from the respective countries used their own databases to reach wineries within their country. Table 2 summarizes the response rate in each country. It should be noted that this database contains only wineries that already have some sort of online presence. It means that wineries not having access to the Internet were not included in our research.

Table 2 Overview of responses in each country

Country	Database
Austria	427
Germany	377
USA	375
Australia	346
Italy	254
France	106
New Zealand	102
South Africa	76
Canada	75
Hungary	61
UK	25
Sum	2,224

The survey ran from November 2013 to February 2014. The wineries received one or two reminder e-mails with the link in order to improve the number of respondents. The questionnaire included questions about the social media platforms used by the wineries, the fields in which they applied them and the expectations associated with their use, the kinds of problems presented by using these social media channels and in cases where these tools (e.g., Facebook and blogs) were not used, and finally, there were questions about the reasons for non-use. Although the questionnaire contained several different fields, in this paper we only focus on four main questions from the survey: 1) How do you communicate with your customers? 2) Which social media platforms do you utilize for your business? 3) What do you want to achieve for your winery by using social media? and 4) Does your winery plan future activities on any Social Media platforms?

3. RESULTS

In this sub-chapter the results from the countries participating in this survey are separately displayed.

3.1 Germany

Face-to-face is still the preferred way of communication with customers among German wine makers. 97.9% state to use this type of communication, followed by email (85.9%), regular mail (84.4%) and phone (82.5%). Social Media as a communication tool was mentioned only by 33.7% of the interviewed wine makers. The same applies to newsletters.

When asked for the utilized social media platforms, Facebook seems to be the clear “number one” – far ahead of other social media platforms. A commercial Facebook fan page is held by 83.9% of the respondents. 42.5% state to be reading wine connected blogs published by others, although a mere 6.7% operate and own a winery blog. Producing and publishing video content with services as YouTube, Vimeo and MyVideo is of a certain significance with 14% of wineries state they use these outlets. Twitter, LinkedIn and Google+ are being used by approximately 12% of the interviewed wineries. Therefore these channels might be characterized as not very important for the time being. Instagram and Pinterest are barely used at all (1%).

If one looks at the postulated aims of using social media, a clear multidimensional structure of the answers becomes obvious. Social media is being used in a very diverse way. The respondents’ main goals are to inform about winery events (85%) along with general public relations (71.5%) and advertisement (59.6%). Further important application areas are customer

service (33.2%) and direct customer communication (43.0%). Beyond the mere information, these platforms are used to acquire new customers by 39.9% of the questioned wine makers. A majority of the interviewed wine makers (67.6%) do not plan any further social media activities in the future. 19.1% would like to introduce a Facebook page, compared to only 5.8% planning to use twitter. The idea of using video services in the near future enjoys certain popularity with 9.5%. Other choices are less popular - Google Plus with 6.4%, setting up a blog (5.3%) and LinkedIn (2.7%). Instagram and Pinterest have only a marginal role (1.6%).

3.2 Austria

An online survey was conducted in Austria from November 6th to December 31st 2013. Emails were sent to more than 1400 wine-growing estates in all of the traditional wine regions, such as the Wachau, Styria, and Carinthia. After two weeks, the wineries got a reminder email and at the end, 427 Austrian wineries participated in the survey.

Austrian wineries use several methods to communicate with their customers: personal communication (97%), via email (92%) and communication via telephone/fax (85%). Only 44% of the wineries use social media to reach their customers and inform them of news. The winemakers prefer communicating via post (52%) and via newsletter (45%) in Austria more than social media.

One of the outcomes is that 90% of the 249 Austrian wineries view Facebook as the most important social media channel to communicate with their customers. After Facebook they use YouTube (19%), Twitter (14%) and Google Plus (14%). While only 7% of the 249 wineries have a blog of their own, approximately 34% like to read blogs from other wineries to get current information and even 8.5% write comments on blogs of their competitors. Instagram or Pinterest do not play a role for wineries in Austria to communicate with their customers.

The main reason that vintners use social media is to inform their customers about events in their wineries (88%). A second purpose is to advertise their wines (76%). Public relations also play an important reason for using social media. Customer service and acquiring new customers is the goal for half of the 249 wineries using social media. A reason for using social media, for 117 wineries, is to provide information about the wines or wine tasting notes to their consumers. Staying in contact and exchanging information with other firms is only important for approximately 20% of the vintners. Finally, around 22% of the wineries do not have an exact defined reason for their social media activities.

50% of the wineries do not want to expand their social media activities in the future. 23% wineries plan to use Facebook to better reach their customers and also video platforms are attractive for 13% of the wineries to use them as marketing tool. Making a blog, using Google Plus, Instagram or Pinterest is not really relevant for the future.

In conclusion, social media is already an important marketing tool in Austria but nevertheless some wineries are also planning to expand their activities in the future.

3.3 Italy

The Italian Research Team sent the questionnaire via e-mail to 2,666 wineries using the SurveyMonkey platform. 254 viable questionnaires were returned .

A first look at the tools that wineries use to communicate with customers highlights the still indispensable face-to-face contact in the business; other than that, the most important means to communicate are e-mail, fairs and exhibitions, and telephone/fax. The use of Social Media(SM) seems to be quite relevant in the sector (67% of the wineries use them), even though the number might be biased by the nature of the survey itself, as the propensity to reply to on-line questionnaires could be higher for those who habitually use the internet and the many tools it supplies.

In detail, Facebook proves to be the most used social medium (93% of the wineries that use SM have at least one account), followed by the use (active or passive) of blogs, various video

services like YouTube and Twitter. LinkedIn, at the moment, seems to be scarcely seen in the wine sector, probably due to the fact that its use traditionally serves different purposes than the other platforms.

Most of the wineries state that the use of SM has one or more specific aims. The most important of which are advertisement and spreading information about the activities of the wineries (wine tastings and events). Wineries give a lot of relevance to all of the suggested purposes of the use of SM, including the promotion of responsible drinking among customers. The high emphasis on most of the possible answers, as a matter of fact, poses some perplexities about the extent of the specific targets of the use of SM, as the situation that emerges indicates that all the aims constitute a “package” of possible achievements.

In a future perspective, more than half of the wineries do not have plans to start or increase activities related to the use of SM. Among the planned activities, the preferences are directed towards “traditional” SM like Facebook, Twitter and Blogs, with a slightly higher emphasis on the use of video platforms.

This first part of the results show how the use of internet tools is already quite spread in the Italian wine sector and that the most important channels are the more established SM like Facebook and Twitter. New and less known SM like Pinterest and Instagram do not seem to bear the same kind of relevance and the potential of the use of Blogs is still not exploited to the maximum extent. A particular attention seems to be given to video platforms like YouTube, indicating a preference for messages that go beyond the simple written word or still images, in a context where dynamism and emotions can be better channelled.

It can be postulated that the full potential of internet tools is still far from being achieved. A deeper look at specific case studies might highlight how SM are used more as “gadgets” than as reasoned and conscious part of overall marketing strategies, with a few, important exceptions represented by larger wineries. In particular, this indication might emerge from the fact that it is not possible to identify a ranking in the importance given to the various aims of the use of SM.

3.4 France

For the question ‘How do you communicate with your customers?’ the most popular method for French wine producers to communicate with their customers was via email with 76% of producers indicating this as their main communication method. Personal communication was also heavily used amongst the brands to communicate with their customers (73%). Communication via Social Media was ranked as the third most common way in which French wine producers communicate with their customers (68%). Wine brands indicated that they communicate via Telephone/Fax (56%), via post (36%) and newsletters (31%) to a lesser extent.

For the question ‘Which Social Media platforms do you utilize for your business?’ a number of French wine producers have a Facebook page for their winery (78%) however only just over half of responding wineries use Twitter for their brand (50%). The use of video sharing platforms such as Youtube, Vimeo and MyVideo were less popular as a communications tool in the French wine industry with only 32% of wine brands using them. Just over one fifth (22%) of French wine producers surveyed run a blog for or about their winery, and only a fifth of wineries engage with other wine related blogs by reading and commenting (20%). Instagram and Pinterest are already at least as popular social media tools utilised with 27% (Instagram) and 20% (Pinterest) of wine producers indicating use of such platforms. Google+ was a slightly more popular tool with 31% of wineries utilising the platform for their business.

For the question ‘What do you want to achieve for your winery by using social media?’ French wine producers indicated that utilising social media to develop a relationship with clients (67%) was of most importance. Advertising the winery (60%), attracting new (59%), communicating with (59%), and to provide information about events (58%) for all customers

was also of importance. In addition, French wine producers indicated that they are using social media to a lesser extent for public relations (47%), and for promoting tasting events for their own wines (40%). Communication with other wineries and distributors was of lesser importance for using social media (30%), whilst 8% of the wine brands indicated that their objectives regarding social media use were not clearly defined. Other objectives of social media use listed included brand awareness, brand personality, increased sales and development of an online profile.

For the question 'How has your workload been affected by Social Media platforms?' just under half of the French wine producers surveyed (44%) indicated that their use of social media has increased in the past year, although just over a third (39%) had not modified their use across social media platforms over this period. A third (33%) of respondents indicated that attracting e-'friends', 'followers' and on-line discussions is the most challenging element in adapting to communications through social media. Future Social Media activities were not discussed by the French researcher.

3.5 Hungary

In Hungary, we received feedback from 61 wineries in 2014. The main findings of the SM survey in Hungary, according to the communication channels towards the customers, we can state that wine producing companies mainly use the personal method to keep in touch (27%) and almost as important is the e-mail (21%) for them. They rarely use newsletters (7%) and the post (4%). The communication tool they also use quite frequently is the telephone and fax (25%). We can conclude that they are personal relationship-driven but at the same time try to keep up with the trends with a bit of a delay by using e-mail and not focusing on newsletters.

In case of social media platforms the Hungarian wineries most of them use Facebook profiles (39%) and they read others' blogs (20%) but rarely create their own ones (4%) and sometimes also add comments to them (10%). Some of them also uploads videos (6%). From the other possibilities they rarely use Google+ (3%) and Twitter, Pinterest, Instagram together take 18%. The most important objectives with social media for the Hungarian wine producing companies were the advertising of the own firm (18%) and getting new customers (17%) which was as important as communicating with the customers (17%). They also wanted to inform customers about events (12%), information about wine tastings (12%), and PR (12%) were equally as important. Communication with the other wineries (7%) and customer service were less important. We can conclude that there is room for improvement in the use of social networks for the direct and frequent communication and information exchange with the customers and to use it as an important tool for the customer service which received only 4% in the survey.

About the future plans regarding the usage of social media the Hungarian wineries set the improvement of their Facebook usage (13%). Blogging and video platforms had the same importance (10%). Google+ (4%) and Twitter (2%) were mentioned as possible ways to improve the SM activities but only with marginal importance. Despite the general willingness to improve, 58% of them stated that they are not planning any further social media activities than what they have at the moment.

3.6 UK

There are 432 commercial vineyards in the UK (United Kingdom Vineyard Association 2014 (UKVA)). 25 usable responses were received giving almost a 6% response rate, therefore a comparative stance has been taken with the German figures.

For the question 'How do you communicate with your customers?' both groups indicate personal communication is the most important, at over 90%. However the use of social media is 40% higher in the UK, in comparison to Germany, and the use of post 72% higher in Germany. This may be accounted for by the different natures of the industry in both countries; UK vineyards are extremely dependent upon gate sales. Very few UK vineyards have a

national presence in supermarkets although they may have a regional presence in some chains such as Waitrose, or more recently, a link with local restaurants, such as Rick Stein's Seafood Restaurant in Padstow and the Camel Valley vineyard.

For the question 'Which social media platforms do you utilize for your business?' UK vineyards use a wider range of social media, and more frequently, than in Germany. Facebook and Twitter are the most important forms of social media in the UK. While Facebook is also the most important medium in Germany, twitter is far less significant (only 12.4% as opposed to an 80% usage in the UK). In both countries, reading blogs is important but running their own blog and commenting on others is much more important in the UK. There is also a higher engagement with videos in the UK. It may also reflect the fact that the UK wine industry is much newer than the German one and so the use of the internet to market may have been an obvious tool when the businesses were set up.

For the question 'What do you want to achieve for your winery by using social media?' both countries see the use of social media as being an important form of public relations (70%+) and to disseminate information about events they are running (80%+). However in UK, 85% of respondents also used Social Media specifically to gain new customers (as opposed to 40% in Germany) and to communicate with customers (80%). Again this may reflect a different customer base and different reason for visiting a winery in the two countries.

For the question 'Does your winery plan future activities on any Social Media platforms?' 44% of UK vineyards are content with their current social media usage, while the other 56% are interested in expanding their use of Social Media. An analysis of our figures, in comparison to Germany, reveals that 20% of German vineyards chose to not answer this question; whereas UK contained a 100% response rate. This may suggest that our sample of vineyards were fully adept with social media.

This could again reflect the new, small, very customer orientated focus of the UK wine industry as opposed to the much larger and more traditional wine business focus of many German respondents. The UK is very crowded in comparison to most other countries. Therefore vineyards and wineries are often close to centres of population making customer leisure trips easy to undertake so they compete with other leisurely activities. This may explain why so many were interested in visual imagery, i.e. use of video and Pinterest.

3.7 USA

In terms of communication with their customers, where multiple selections were possible, a majority (98%) use email, followed by face-to-face with 88% and Social Media with 87%. Regular mail is only used by 37%, which might have also been replaced by Newsletters with 61%. Telephone and fax was mentioned by 81% but is not clear if this means in terms of marketing or just receiving orders due to an inefficient eCommerce (n=375).

Nearly all of the wineries, 92%, are using Facebook. Twitter is used by 64% of the wineries, whereas 6% of wineries do not use any Social Media platform at all. 5% used the category "other" where free text was allowed, but most of the entries did not qualify as Social Media platforms. Only two wineries mentioned LinkedIn as their platform for business. Internet pages like Trip Advisor or Yelp are being used by 46%. These platforms are more important to the wineries than blogs or video uploads via YouTube, Vimeo or MyVideo (37%). Blogs in general seem to be of interest, as 41% stated that they read blogs from others, but only 23% do have an own blog for their winery. Instagram/Pinterest was used by 33% (n=375).

Being asked what they want to achieve for their winery by using social media only 8% had not yet defined their goals. Both consumer service (51%) and information about wine tasting (56%) were selected by around half of the wineries. Approximately one third of wineries wants to communicate with other wineries (34%). The most important aspects were acquisition of new customers (78%), advertisement (73%), and providing information about events (77%), public relation (70%) and communication with consumers (81%) (n=375).

Nearly half of the wineries (45%) do not plan any further activity of social media. 28% want to add online videos via YouTube, Vimeo or MyVideo and 22% plan to use Instagram or Pinterest within the next six months. 20% plan to use Facebook, compared with 14% planning to use Twitter. Blog and Google+ were only mentioned by 14% and 12% respectively. One winery added that they were planning to hire a full time social media manager. Of those 6% who have neither Facebook nor Twitter, a vast majority (71%) are not planning any further social media activities in the next 6 months. Only 17% want to set up Facebook and 13% a Twitter account, Blog and online videos following with 8% each (n=24).

3.8 Australia

The most popular method for Australian wine brands to communicate with their customers was via email with 87% of brands indicating this as their main communication method. Personal communication was also heavily used amongst the brands to communicate with their customers (86%). Communication via Social Media was ranked as the third most common way in which Australian wine brands communicate with their customers (65%). Wine brands indicated that they communicate via Telephone/Fax (51%), newsletters (44%) and via post (30%) to a lesser extent.

For the question ‘Which Social Media platforms do you utilize for your business?’ a majority of Australian wine brands have a Facebook page for their winery (87%), whereas just over half of responding wineries use Twitter for their brand (55%). The use of video sharing platforms such as Youtube, Vimeo and MyVideo were less popular as a communications tool in the Australian wine industry with only 31% of wine brands using them. Only one fifth (21%) of Australian wine brands surveyed currently run a blog for or about their winery, however over a third of wineries engage with other wine related blogs by reading and commenting (35%). Instagram and Pinterest were the most unpopular social media tools utilised by wine brands with only 17% (Instagram) and 7% (Pinterest) of wine brands indicating use of such platforms. Google+ was a slightly more popular tool with 22% of wineries utilising the platform for their business.

For the question ‘What do you want to achieve for your winery by using social media?’ Australian wine brands indicated that utilising social media to attract new customers (78%) and communicate with customers (76%) was of significant importance. In addition, Australian wine brands indicated that they are using social media in an attempt to achieve advertising of their winery (66%), public relations (66%) and to provide information about events (63%). Communication with other wineries and companies was the least important reason for using social media (29%), whilst 16% of the wine brands indicated that their objectives regarding social media use were not clearly defined. Other objectives of social media use listed included brand awareness, brand personality, increased sales, and development of an online profile.

For the question ‘Does your winery plan future activities on any Social Media platforms?’ over half of the Australian wine brands surveyed (56%) indicated that they were not planning any further activities on any social media platforms. The use of Facebook was the most common future activity planned, with one quarter of respondents indicating future intention to use the platform. Wine brands indicated that they also planned to use Twitter (19%), set up of a blog (13%) and use video sharing platforms (13%) in the future. In contrast, only 4% of Australian wine brands intend to use Pinterest in the future, and only 8% plan to use Instagram.

3.9 New Zealand

The survey was sent to 575 wineries in New Zealand and responses were received from 102, giving a response rate of 18%. Almost all of the wineries (95%) have a homepage about their business and 67% have an online shop, indicating that most wineries are active in the online environment.

Concerning how New Zealand wineries communicate with their customers, it is clear that

social media (65%) is a well-utilised method for communicating with customers, although personal (89%) and email (90%) communications are still the most widely used. Another result indicates that 63% of New Zealand wineries rate the importance of social media as at least somewhat important to them. As for the social media platforms being used by New Zealand wineries, the most commonly used social media platforms are clearly Facebook (67%) and Twitter (55%).

Analysing the aims wineries want to achieve through using social media, the participants indicated that they predominantly use social media to gain new customers (61%), communicate to customers (57%) and for public relations purposes (52%).

Looking at the future plans of New Zealand wineries regarding activities on social media platforms, many of the wineries have no further plans for social media activities (44%). The most frequent plans for the future are the use of video platforms (17%) and using Facebook (12%). It should be noted that, compared to last year, 40% of wineries reported that they had increased their social media activity so this suggests that there has been considerable growth recently.

3.10 Canada

In Canada, we have 2 provinces that are the main wine-producing provinces in the country: Ontario and British Columbia. We first did an investigation into contacts (marketing managers, etc.) for each winery, and created a database with the winery location, name, contact email, and Twitter handle. We also adapted the Social Media survey previously used in Germany to a Canadian audience, using Qualtrics (online) software. Through email, as well as Tweets, and re-Tweets that occurred from people in the industry, we attempted to distribute the URL for the survey, to be completed by wineries. The email invitation contained basic information regarding the survey motive. Across Canadian wineries, there were 282 wineries contacted to fill out the survey, in total 75 wineries completed the questionnaire. Once respondents began the survey, they were informed in more detail the survey's purpose. Respondents were also given brief instructions on how to respond. Reminder emails were sent to any winery that had not fully completed the survey: 3 reminder emails were sent to Ontario wineries, and 2 reminder emails were sent to British Columbia wineries.

In terms of Social Media use, 93% reported using Facebook, and 93% reported using Twitter, whereas only 4% reported using video platforms, such as YouTube.

For what they wanted to achieve by using Social Media, communication with customers came out on top (87%), followed by getting new customers (86%), advertising (85%), and events (83%).

For the question, 'How do you communicate with your customers?' the response 'Via Email' came out on top (89%), followed by personally (84%), 'Via Social Media' (80%), 'Via Newsletter' (68%), 'Telephone/Fax' (52%), and 'Via Post' (24%).

In conclusion, it appears as though many Canadian wineries are embracing Social Media as part of their marketing efforts. Facebook and Twitter are the top platforms being used, and these are used primarily as a means to communicate and connect with customers.

3.10 South Africa

The South African study was sent at the beginning of December 2013 to WOSA (Wine of South Africa, a non-profit industry organization) producer in form of a newsletter. After one reminder, we received 76 completed questionnaires in total.

Analysing the way of communication of the wineries, one can see that modern communication tools, as in email (96%) and social media (92%), play an important role in South Africa. Even personal contact reached a high usage (82%), which may be based on the fact that South Africa has a well-developed wine tourism. The old fashion communication tool "sending letters" is not very often used in South Africa (11%), while telephone/fax achieved a level of 61%.

Among the social media channels, Facebook (100%) and Twitter (88%) are very popular. South African wineries utilize even video sharing (49%) and Instagram/Pinterest (41%) more often than wine makers in other countries. However, having a blog for the winery and using Google + is not as common.

The most important aim of using social media tools in South Africa is to reach consumers and to communicate with them (96%). Wineries in South Africa also use the advertisement function of the new media as well as obtaining new customers for the winery. Similar to the other participating countries, social media as a tool for communicating with other wineries is not very popular.

South African wineries plan to extend their social media portfolio by using video-platforms (42%) and picture based communication tools, such as Instagram and Pinterest (41%). Some of them will try to reach consumers in the future via their own blog (19%) or Twitter (21%).

4. DISCUSSION

In this chapter we discuss the differences and similarities between the countries participating in the survey. Since the comparison of eleven different results one-by-one with each other would go beyond the constraints of this paper, we focus here rather on the most interesting results and try to compare Europe with overseas countries.

When analysing the methods of communication between wineries and consumers (Tab. 3), it is apparent the personal communication is still the most important tool wineries use to reach their consumers. Post, as a traditional communication tool, has lost its dominance and is used frequently only in Germany nowadays. In comparison, the modern way of sending mail (e-mails), became very popular and is used in each country. In terms of using social media for communication, overseas countries have a clear lead. Telephone is still important, however it is experiencing a downwards trend.

Table 3 How wineries communicate with their customers (percent)

	Austria (n=427)	Germany (n=377)	Italy (n=254)	France (n=106)	Hungary (n=61)	UK (n=25)	USA (n=375)	Australia (n=346)	New Zealand (n=102)	South Africa (n=76)	Canada (n=75)
personally	97	98	97	73	61	92	88	86	89	82	84
via post	53	84	47	36	9	12	37	30	29	11	24
Telephone / Fax	86	83	84	56	55	60	81	51	64	61	53
via Email	92	86	96	76	47	84	98	87	90	96	89
via Newsletter	45	34	44	31	16	32		44	56	61	68
via Social Media	44	34	67	68	35	74	87	65	65	92	80

For this question the sample size was reduced, since only participants which use social media for the winery were analysed (Tab. 4). This survey confirmed the results of previous researches (Bouquet 2012; Szolnoki 2014) which showed that Facebook is the most popular social media platform - independent of the country, this platform achieved the highest score. Using Twitter and writing blog shows huge differences, especially when comparing Austria and Germany with other countries. Similar differences occur in terms of using video sharing systems and Instagram/Pinterest. These results demonstrate that potentially German and Austrian wineries should improve their social media utilization.

Table 4 Which social media platforms do wineries utilize for their business (percent)

	Austria (n=249)	Germany (n=193)	Italy (n=170)	France (n=72)	Hungary (n=41)	UK (n=20)	USA (n=326)	Australia (n=274)	New Zealand (n=66)	South Africa (n=74)	Canada (n=60)
Facebook	91	84	93	78	32	80	92	87	67	100	93
Twitter	14	12	50	50	6	70	64	55	55	88	93
Video sharing	19	14	65	32	5	30	37	31	32	49	41
Blog	7	7	20	22	3	25	23	21	17	24	16
Read blogs	33	43	84	20	16	35	41	35	32	50	39
Comment blogs	8	14	52	20	8	20	16	35	8	18	9
Google+	14	11	48	31	2	5	17	22	17	12	24
Instagram/ Pinterest	7	1	51	47	8	30	33	24	27	41	52

It is difficult to notice a trend when investigating the aims of using social media in the wine business, however when European and overseas countries are analysed separately, there are main differences (Tab. 5): Overseas countries put more emphasis on the ‘acquisition of new customers’ function of social media and communicate more with their customers, while European wineries use social media platforms more to inform consumers about events, especially about wine tastings.

Table 5 The aims of using social media (percent)

	Austria (n=249)	Germany (n=193)	Italy (n=170)	France (n=72)	Hungary (n=41)	UK (n=20)	USA (n=326)	Australia (n=274)	New Zealand (n=66)	South Africa (n=74)	Canada (n=60)
Customer service	51	33	81	67	6	50	51	56	44	66	72
Getting new customers	52	40	85	59	27	85	78	78	61	82	86
Advertisement for my winery	76	60	88	60	31	75	73	66	48	88	85
Information about events	88	85	88	58	20	80	77	63	48	78	83
Information about wine tasting	47	38	89	40	19	60	56	48	35	62	68
Public relations	59	72	83	47	19	75	70	62	52	78	73
Communication with consumers	46	43	83	59	27	80	81	76	57	96	87
Communication with other wineries	20	17	75	30	11	45	34	29	30	31	47
It is not exactly defined	9	14	10	8	2	5	8	7		1	3

Finally, the future activities on social media platforms were analysed (Tab. 6). Although Facebook is one of the most widely used social media platforms, participated wineries, mainly in Europe will extend their future internet activities by this medium. In the future, wineries look to improve their social media presence by using video- and photo-platforms such as YouTube, Instagram, and Pinterest.

Table 6 Future activities on Social Media platforms

	Austria (n=427)	Germany (n=377)	Italy (n=254)	France (n=106)	Hungary (n=61)	UK (n=25)	USA (n=375)	Australia (n=346)	New Zealand (n=102)	South Africa (n=76)	Canada (n=75)
Set up a blog	4	5	17	ns	6	8	14	13	5	19	28
Use of Facebook	23	19	17	ns	8	20	20	25	12	15	32
Use of Twitter	8	6	17	ns	2	8	14	19	9	21	30
Use of Video-Platforms	13	10	17	ns	6	32	28	13	17	42	31
Use of Google+	5	6	10	ns	4	12	12	11	7	8	10
Use of Instagram/Pinterest	3	2	21	ns	2	28	22	12	10	41	26
Other	4	3	1	ns	1	0	2	6	3	1	0
No, I am not planning any further activities	51	68	53	ns	36	44	45	56	44	30	0

This study demonstrates that social media has been accepted and is already widely used as a communication tool in the wine industry. A high level of acceptance of social media tools were observed in each participating countries. Facebook is the most important among the available social media tools; however video- and photo-sharing systems are developing rapidly. There is a significant difference between European and overseas countries. Wineries of the latter more frequently utilize social media than those from Europe. It might be based on the fact that most of the social media tools were developed in overseas countries and that the wine industry in Europe has a deep tradition of more than a hundred years which is reflected also in the way of communication between producers and consumers.

The current study provides only a snapshot of the wine industry in the selected countries. Only a limited number of wineries with Internet access were involved, and the study did not take into account wineries without this facility. On the other hand, we expect that wine makers and employees of wineries who are interested in social media, took part in the survey. Finally, cultural differences and the diversity of the data base which was used to reach wineries in the certain countries might also lead to bias within the results.

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**Click, Ship, Sip:
Who is the Online Wine Buyer?**

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Abstract

◦*Purpose: The purpose of this research is to provide a detailed profile of the typical wine buyer in the United States. Online sales represent approximately 5% of the total wine market in developed countries, but is experiencing rapid growth with a 38% increase in 2010 and up to 15% of all wine sales in Britain taking place online (Lochshin and Corsi, 2012; Pfanner, 2013; VinterActive LLC, 2011).*

◦*Design/methodology/approach: A survey was designed to gain information about wine consumption, wine purchasing, and online behavior. The survey was distributed through a database of wine consumers and 918 responses were obtained. Following the completion of the data collection and analysis, a second, independent, survey was designed and distributed to a new group of potential respondents, obtaining 191 millennial wine consumer responses.*

◦*Findings: The US online wine buyer is an older, married man, with an income higher than other wine consumers. Online buyers are more likely to be wine connoisseurs and enjoy talking about wine. Despite access and comfort with technology, Millennials are not likely to purchase wine online. Millennials site preferences for buying wine that they have an experiential connection with, immediacy of consumption, and the cost of shipping as reasons not to purchase online.*

◦*Practical implications: As a result of this research, online retailers and wineries have a better understanding of how to position themselves to appeal to the individuals that are purchasing wine online. In addition, this research identifies many opportunities to expand online wine sales through untapped consumer markets.*

Key words: online, consumer behavior, wine, purchasing

1. INTRODUCTION

E-commerce represents 4% of total retail trade sales in the United States with \$145 million in total value (US Census Bureau, 2012). The number of people who have purchased something online has expanded to 117 million (Laudon and Traver, 2009). The demographic profile of new US online shoppers has broadened to become more like ordinary American shoppers while at the same time significant generational differences in purchase patterns have emerged (Laudon and Traver, 2009). The Internet enables expansion into otherwise unreachable markets. E-commerce has emerged as one of the most important methods of doing business and holds considerable potential to increase sales for years to come (Limayem et al., 2000).

The Internet has the potential to allow small wineries to reach a much wider audience. Wine e-commerce experienced an annual growth rate of 38% in 2010 (VinterActive LLC, 2011). Although state laws impede some potential sales, consumer pressure is likely to increase the states that allow Internet wine sales and further grow this sales channel (First Research, 2013). While online wine purchasing currently represents 5% of the total wine market in developed countries, 2% of global wine sales, select areas are significantly higher (Lockshin and Corsi, 2012). Online wine sales in Britain have reached 15% of wine sales (Pfanner, 2013).

Capturing the millennial consumer is of increased interest for the wine industry. Born between 1977 and 1999, Millennials are the most recent generation to come of drinking age (Olsen et al., 2007). The Millennial generation currently makes up 14% of the legal drinking population, but will grow to ~40% over the next 10 years (First Research, 2013). The millennial generation currently makes up 28% of core wine drinkers; core meaning they drink wine at least once a week, on average (Wine Market Council, 2011).

The Millennial generation grew up with the Internet at their fingertips and is very technology savvy (Olsen et al., 2007). They have also been very involved in digital social networks, and connect through them often (Lecat and Pelet, 2011). Because of this comfort with the Internet and technology, it would seem Millennials would be the prime demographic to take advantage of the increasing opportunities to purchase wine online. However, recent research suggests that the Internet is the least common location for Millennials to buy wine (Thach, 2011).

As the wine industry continues to grow, it is likely that online direct to consumer wine sales will grow as well. However, if it isn't Millennial wine buyers making online wine purchases, who is it? This research will profile the online wine buyer and provide valuable information for wine retailers and wineries with online sales for targeting and reaching the wine buyers. In addition, hurdles for millennial online wine buyers will be identified. The information gathered from this study will help businesses interested in selling wine online understand more about the nature of online wine buyers and what will (or will not) drive them to purchase wine online.

2. REVIEW OF LITERATURE

Online venues offer convenience, selection variety, lower prices, original services, personal attention, and information access (Zhou et al., 2007). However, online shoppers tend to be more concerned about possible losses (e.g., security of information and vendor reliability) than with those associated with perceived gains (e.g., different convenience-type attributes) (Bhatnagar and Ghose, 2004). In contrast to other shopping experiences, men tend to have more positive sentiments toward online shopping than women (Alreck and Settle, 2002).

Stening and Lockshin (2001) compared the online purchasing patterns of 700 wine customers

and found that online wine purchases were of higher priced wines with a larger shopping basket. They speculated online purchases tended to be expensive and hard to find wines, versus in-store convenience purchases. Contrary to Stening and Lockshin's (2001) findings, consumers in Bruwer and Wood's (2005) research found wine consumers utilizing online resources to find bargains, but were also interested in the extra information provided online. Wine is both an information and price-sensitive product when it comes to online retailing (Bruwer and Wood, 2005). Sheridan et al. (2009) found that first time US online wine buyers had problems trying to buy online because of the legal and technical differences across states.

Although wine e-commerce is becoming a recognized sales channel, little research has been dedicated to developing a better understanding of the demographics and psychographics associated with these online wine purchases. Access to the internet as well as the number of online retailers have increased since Bruwer and Wood's (2005) research as well as Stening and Lochshin's (2001) research, likewise, it is reasonable to believe that the online wine buyer has also changed. Developing a more complete picture of today's consumers that partake in wine e-commerce has the potential for significant sales and marketing implications.

3. MATERIALS AND METHODS

3.1 Online Wine Buyer

A 21 questions survey was developed consisting of questions related to demographics, wine consumption, wine purchase behavior, and a series of psychographic questions. Respondents were asked to indicate where they make their wine purchases by checking all that apply from a list of 13 different commonly used wine suppliers (e.g. grocery store, tasting room, wine clubs). Included in the list, were two online wine purchases (online from winery and online other website). Respondents that selected either of those two options were considered part of the target group.

Because questions pertained to consumer behavior and preference, five symmetric itemized rating scales were used to reduce leniency error (Smith and Albaum, 2004). Respondents were asked to rate eighteen wine purchasing features on a five-point desirability scale. These features include wine characteristics such as quality, price, and image. The survey asked participants to rate their identification with seven wine-related psychographic statements.

The survey was available to subjects for six weeks in early 2013 through SurveyMonkey. A link to the survey and a brief explanation of the study was sent to wine purchasers from a Constant Contact email list of 3,000 wine purchasers. All respondents were pre-screened in the first two questions of the survey to ensure that they were of legal drinking age and have purchased wine in the past year. The survey was terminated if those criteria were not met. At the end of the survey, subjects had the opportunity to provide their email and be entered in a lottery to win two bottles of wine (Sellitto, 2006).

3.2 Millennial Online Wine Buying

The objective of this second survey switched from developing a profile of online wine buyers from a large sample to a deeper, more qualitative study of Millennials' hesitations to online wine buying, thus necessitating the second, independent survey. The survey sought to identify Millennial wine buying habits, reasons why they are not buying wine online, and ways to more effectively reach Millennial consumers online. Respondents were asked questions related to their wine purchases, demographics, experience purchasing wine online, and sentiments about making online wine purchases (modified from Limayem et al. (2000)). Respondents were also surveyed regarding their use of technological devices.

4. RESULTS

4.1 Profile of the Online Wine Buyer

4.1.1 Sample Demographics

Of the 918 surveys collected, the majority of responders were female (62.5%). MRI data supports the female dominance of wine purchases at 59.1%. The top four age categories were 18-24, 50-54, 25-29, and 55-59 at 19.6%, 16.6%, 13.6% and 13.2%, respectively. A considerably high number of respondents (37.3%) had household incomes \geq \$150,000 and the second largest income group was \$75,000 to \$149,000 at 27.4%. Though the study's income distribution differs from the MRI's income distribution, both show a clear pattern; the majority of wine purchasers fall under the two highest household income groups. For education, the top three represented options were college graduate, postgraduate work, and some college, at 50.7%, 33.8%, and 13.8%, respectively. The majority of respondents stated they were "married/ living with a partner" (65.0%).

A majority of respondents buy wine from the grocery store (84.3%). Almost half of the respondents buy wine from a wholesale store and tasting room, at 49.9% and 45.7% respectively. Following grocery store, wholesale store, and tasting room, sources of wine purchases were restaurant, specialty wine shop, and online from winery, other, convenient store, and other website, in that order respectively. Less than 3% of respondents purchase wine from gift shops, hotels, and wine apps.

4.1.2 US Online Wine Buyer

Of the 918 respondents, 20.5% respondents indicated that they purchased wine from online from a winery and 5% indicated that they purchased wine from an online site other than a winery. The 211 respondents that purchase online were isolated into an online wine buyer target group and compared to the remaining 707 respondents.

The split between online wine buyers and those who are not revealed demographic differences. Online wine buyers tend to be older, with 77% of the online buyers over the age of 40, compared to just 50% of non-online buyers. Just 14.7% of the online buyers were in the 21-29 age category (Millennials), compared to 38.8% of the respondents who do not purchase online. The gender gap narrows with online buyers. In the original sample, 62.5% of the sample was female, compared to just 52.2% of the online wine buyers being female. Likely a function of the age difference, online wine buyers were more likely to be married ($p=.000$), have children living at home ($p=.001$), and have higher household incomes ($p=.000$).

Using a five-point scale, respondents were asked to indicate their level of agreement with seven psychographic statements related to wine. Compared to those that don't purchase wine online, online purchasers were more likely to consider themselves a wine enthusiast ($p=.005$), enjoy talking about wine ($p=.003$), consider themselves knowledgeable about wine ($p=.012$), and consider themselves a wine connoisseur ($p=.012$).

Behaviorally, online wine buyers tend to differ from wine consumers that don't purchase wine online. Online wine buyers reported buying 7.7 bottles per month, compared to 5.7 for those that don't purchase online ($p=.001$). In addition, online wine buyers spend more on wine, having reported \$134 US in monthly wine spending compared to \$81.6 US for respondents that don't purchase wine online ($p=.000$). Nearly 30% of online purchasers normally spend more than \$18.50 US on a bottle of wine, compared to just 17% of respondents that don't purchase

wine online (p=.003).

Online wine buyers also seek out different characteristics in their wine purchases. Compared to respondents not purchasing wine online, online buyers are more likely to be interested in wines that are considered a premium quality product (p=.032), from a recognized growing region (p=.025), from a family owned winery (p=.005), and from a boutique winery (p=.011). Online wine buyers report more interest in both new and old world wines (p=.022 and p=.027, respectively), compared to those that don't buy wine online. In addition, online buyers are less interested in a wine when it is offered at a sale price (p=.000) and less interested in the wine's label design (p=.001).

In the search for information about wine, online buyers tend to exhibit characteristics that are different than the typical wine buyer. Online buyers are more likely to use a phone app for wine information, 16.1% compared to 9.9% for non-online shoppers (p=.018). Likewise, they are more likely to use a tablet application for wine information (p=.011). Other sources of information that more likely to be used by online buyers include winery websites (p=.000), Google (p=.061), print media (p=.000), and friends / family (p=.000). There were no significant differences between the two groups in terms of the use of Yahoo, Facebook, Twitter, and blogs for wine information. A demographic, behavioral, and psychographic profile of the online wine buyer is presented in Table 1.

Table 1. Profile of the US Online Wine Buyers

	Online Buyers
Demographics	Older (77% are 40+) men
Household	Married with Children
Income	Higher household incomes
Wine knowledge	Wine enthusiasts or connoisseurs, enjoy talking about wine
Purchase habits	Each month purchase 2 bottles more and spend \$50 more than traditional buyers
Wine types	Premium quality, recognized growing regions, family owned and boutique wineries
Information search	Wine apps, online sites, print media

4.2 Millennial Online Wine Buyer

As a means to building a better understanding of why Millennial wine consumers were among the age groups least likely to purchase wine online, the second survey was designed and distributed online. A total of 161 Millennial wine drinkers completed the second survey. The majority (51%) of survey respondents were 21 to 24 years old, female (68%), employed full-time (56%), and single (63%) with no children under 18 living at home (87%). Respondents were highly educated with 38% completing some college and 42% with college degrees. Respondents tended to have lower incomes than the original sample with 40% reporting annual household incomes under \$24,999 and the majority (63%) being under \$49,999. The majority of respondents own or regularly use a smartphone (96%) and a computer (94%).

The majority of Millennial respondents (85%) purchase 1-5 bottles of wine each month in the

\$10.00-\$14.99 US price range. The majority of respondents purchase wine from grocery stores (85%), tasting rooms (53%) and liquor stores (53%), while 66% of respondents purchase wine most frequently from grocery stores.

Respondents were asked questions to explore their online wine purchasing history, plans for the future, and general feelings regarding online wine shopping. The majority of Millennial respondents (79%) had never purchased wine online and are unlikely (63%) to purchase wine online in the near future. Despite the lack of purchases online, 53% of Millennial respondents are using winery websites to find information about wine, compared to just 40% using wine magazines. Table 2 showcases some of the key differences between millennial wine buyers and the general wine buyers from the first survey.

Table 2. Profile of General Wine Buyers Compared to Millennial Wine Buyers

	General Wine Buyers	Millennial Buyers
Monthly wine purchases	6	4
Monthly wine spending	\$95.66	\$30
Wine purchase prices	\$10 - \$18.49	\$10 - \$14.99
Purchase venues	Grocery store, tasting rooms, and specialty wine shops	Grocery stores, tasting rooms, liquor stores
Purchase online	70% have never purchased online	79% never have purchased online
Wine information sources	Friends and family, Google, print media	Winery websites, print media, Facebook

Note: General wine buyers are wine buyers from the first survey, while millennial buyers are those from the second survey designed specifically for millennial respondents.

Millennial consumers purchase wine to consume within the next month and therefore believe that it is not worth waiting for a wine shipment. Half of the respondents feel that the cost of shipping makes buying wine online too expensive and compared to just 37% who agree that, “shopping for wine online is more convenient than regular shopping,” (p=.0059). Millennials prefer to purchase wine that they have an experiential connection with (67%) and do not think they can get better service from Internet stores (36%). Despite findings from earlier research, the majority of respondents believe their financial information is secure when purchasing wine online and don’t believe privacy violations are a major problem.

The sample was further split between Millennials that had purchased online (13.5%) versus those that had not purchased online. Even within this Millennial sample, respondents who have purchased wine online are significantly more likely (than respondents who have never purchased wine online) to be 25 years old or older, employed full-time, married/ living with a partner, a college graduate or postgraduate, with an annual household income over \$75,000. Respondents who have previously purchased wine online are significantly more likely to purchase 3-5 or 10+ bottles of wine a month. They are also significantly more likely to buy wine that is \$15.00 a bottle or more. Respondents who have never purchased wine online are more likely to buy 1-2 bottles of wine a month in the \$5.00-\$14.99 price range.

Respondents who had previously purchased wine online are more likely to agree that online purchasing saves them money (p=.011), is more convenient than regular shopping (p=.004), and that their financial information is secure (p=.011). They are also more likely to disagree

that the quality of wine available for purchase online is untrustworthy ($p=.001$) and, surprisingly, they are more likely to believe that the cost of shipping makes buying wine online too expensive ($p=.002$). Respondents who have never purchased wine online are more likely to agree with the statement, “I typically buy wine to consume within the next month; therefore it is not worth waiting for a wine shipment” ($p=.000$).

5. SUMMARY AND CONCLUSIONS

Online wine buyers are more likely to be a highly involved wine consumer that appears to know more about wine and dedicates additional resources to wine purchases. In a sample of 918 wine consumers, 211 respondents indicated that they purchase wine online. Those online wine purchasers purchase more wine at higher average prices, they are more likely to talk about wine with friends, are more likely to consider themselves knowledgeable about wine, and they are more likely to seek out information about wine. They also tended to be older, male, and have higher household incomes.

The 21-29 age group was the group least likely to purchase wine online and, thus, that segment of the population was followed up with using a second, independent survey. Consistent with our expectations, the majority of Millennials surveyed in the second survey have never purchased wine online (79%). Of the respondents who have purchased wine online before, almost half (48%) aren't likely to do so again in the near future. Older Millennials that have higher incomes and full-time jobs are more likely to partake in online wine purchases. Buying wine online is not thought of as a way to save money, but as an outlet to purchase nicer wines for special occasions or gifts. The top three deterrents from Millennials purchasing wine online are that Millennials prefer to buy wine that they have an experiential connection with, typically buy wine to consume within the next month (and don't think it is worth waiting for a wine shipment), and think the cost of shipping makes buying wine online too expensive. The majority of Millennials purchase their wine from grocery stores.

For wineries or wine shops that would like to increase online sales to Millennials, it is recommended that they find ways to decrease the cost of shipping wine to purchasers. It is also recommended that they market the wines available online as quality wines perfect for a special occasion or gift. It is also important to help Millennial consumers make a connection with the wines they are purchasing online, further research is necessary to determine how to make that connection.

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Influences of M-commerce and Social Media on Wine Purchases: A Multi-Cultural Study

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Abstract

Wine shoppers may transition effortlessly back and forth between the real and digital worlds, using their mobile phones to research products, consult with friends near and far, compare prices, and order online. It may behoove wine marketers to engage with consumers in both the real and digital worlds. While the wine industry has been adopting online marketing and e-commerce, research into the potential of mobile (m) - commerce has not yet been undertaken. This exploratory study examines how consumer behavior is shaped by the use of mobile devices and social media and consumer expectations about m-wine purchasing. This study of 2853 respondents from six countries examines the characteristics of mobile users regarding several variables: use of mobile phone - wine purchase and consumption - m-wine purchasing. The survey research was conducted using both online and personal questionnaires. Our findings show that mobile phone usage and m-wine purchasing differed by country. Different ways of selling are observed and results show that small and medium sized wine making companies may wish to consider mobile platforms in their strategy to advertise, market, promote and sell more wine. Results show that m-commerce websites/applications using social media offer potential for wine marketers. Implications for the international wine industry are detailed. Limitations and suggestions for future research are discussed.

Key words: wine, e-commerce, m-commerce, cross cultural, social media, m-wine purchasing

1. INTRODUCTION

Continued growth of smartphones is favoring the surge of mobile commerce (m-commerce) and some experts such as research firm Gartner Inc. predict that m-commerce will soon overtake e-commerce (Gartner, 2011). Indeed, mobile transactions are experiencing exponential growth, with reports indicating annual 356% growth rates for sales via smartphones and tablets (IMRG Capgemini, 2012). As for any product sold using mobile, Pelet, Diallo & Papadopoulou (2013) state that m-wine purchasing should take off, if the right conditions are in place. These conditions include positive user experience, trust and seamlessness including shareable content that is simple and focused on the particular product or service. Social networks favour such progression in the way consumers behave with their smartphones. Their simple interfaces that display important and recent information with brief content comprising images, short text, or just a few words make them a powerful tool to enhance sales.

Like other industries, the wine industry began using the Internet in the 1990s but the early adopters were constrained by complicated wine shipping regulations and security concerns by customers, among other things (Bruwer & Wood, 2005; Gebauer & Ginsburg, 2003; Quinton & Harridge-March, 2003; Thach, 2009). A study by Thach (2009) found that 61% of USA winery websites had e-commerce ability but a much smaller proportion had interactive components such as vlogs/online videos (11%), blogs (2%) and podcasts (1%). While the literature regarding the wine industry during the last decade has seen a growth in studies of wine consumption behavior (examples include Bitsani & Kavoura, 2012; Cohen, d’Hauteville & Sirieix 2009; Nowak, Thach & Olsen, 2006; Ritchie, Ritchie & Ward, 2009; Thach & Olsen, 2004, 2006), with some examining the use of online marketing, none have so far explored the potential of m-commerce as it relates to the wine industry. Following Lockshin & Corsi’s suggestions (2012), we strive to delve into one of the areas with the greatest research needs: m-wine purchasing. This article starts with a review of literature relating to mobile marketing and online wine marketing. We present the methodology and results of our research study of wine and m-commerce among six countries, France, Greece, Germany, Canada, United States, South Africa, followed by conclusions, limitations, and ideas for future research.

2. LITERATURE REVIEW

2.1 Wine consumption by country

On a per capita basis, among the countries examined in this study, French wine consumers consumed the most wine in 2011 (see Table 1). Wine consumption by country as a proportion of world consumption in 2011 indicates that consumers in the United States consumed more wine in total than the other countries examined in this study (see Table 1).

Table 1: Wine Consumption by Country in 2011 (Trade Data and Analysis, 2011)

Country	Litres Per Capita in 2011	% of World Consumption in 2011
France	45.61	12.29%
Greece	26.00	1.15%
Germany	24.48	8.17%
Canada	11.70	1.65%
United States	10.46	13.47%
South Africa	7.23	1.45%

Differences in wine consumption in general have been found by gender (Atkin, Nowak, & Garcia, 2007; Bruwer, Saliba, & Miller, 2011; Garcia *et al.*, 2007; Thach, 2012), generation (Barber, Dodd, & Ghiselli, 2008; Teagle, Mueller & Lockshin, 2010; Bruwer *et al.*, 2011), lifestyle (Bruwer & Li, 2007), country (de Magistris *et al.* , 2011; Goodman *et al.*, 2008; Mueller, Remaud & Chabin, 2011), extent of knowledge of and experience with wine (Barber, Ismail, & Dodd, 2007), and choice criteria used in wine purchases (Lockshin & Cohen, 2011).

2.2 Internet penetration by country

Of the countries examined in this study, Internet penetration from any device, including mobile phones ranged from 87% in Canada to 41% in South Africa, as shown in Table 2. Penetration is the percentage of a country's population who are Internet users and the country rank is related to the number among the 211 countries in the world.

Table 2: Internet Users from Any Device 2012 (International Telecommunications Union, 2013; United States Census Bureau, 2012)

Country	Internet Penetration (%)	Rank	Number of Internet Users
Canada	87%	16	29,760,764
Germany	84%	22	68,296,919
France	83%	24	54,473,474
United States	81%	28	254,295,536
Greece	56%	71	6,029,983
South Africa	41%	108	20,012,275

2.3 Mobile Phone usage

In the United States, consumers have about equal access to mobile phones and personal computers. In the BRIC countries (Brazil, Russia, India, and China), there are almost four times as many mobile phone subscriptions as there are personal computers. In countries such as Italy and Germany, penetration rates of mobile phones exceed 100%, with some consumers owning more than one mobile phone (Kaplan, 2012). With this increase in mobile phones and mobile devices a related increase in mobile commerce is being observed (Venkatesh, Ramesh & Massey, 2003; Ngai & Gunasekaran, 2007).

Mobile users are increasingly accessing social networks using their mobile devices. A study by Adobe (2013) among mobile users in the United States, Canada, United Kingdom, France and Germany found that most had accessed social networks using a mobile device, ranging from 94% for those 18-29 years of age to 75% of those 50-64 years of age. In fact, Facebook was the second most visited web property that was accessed by smartphones and was the top smartphone app in the United States in August 2013 (ComScore, 2013).

While most, if not all of the Internet-enabled activities that can be accomplished through desktop and laptop computers can now be accomplished through smartphones and tablets, some activities are particularly well suited to mobile devices, such as SMS messages (or text messages), Quick Response (QR) codes and location-based services. Location-based services include consumers using their mobile devices to obtain directions based on their current location or mobile social media users who include location in their posts or who use a geo-social service such as Facebook to “check in” or announce their presence to a location (Pew Research Center, 2013). Mobile social media is defined as “a group of mobile marketing applications that allow the creation and exchange of user-generated content” (Kaplan, 2012), such that a geo-social service such as “Facebook Check In” is a subset of mobile social media.

In the United States, 74% of adult smartphone users obtain directions or other information based on their location while 12% of adult smartphone users utilize a geo-social service to “check in” to a location (Pew Research Center, 2013). However, there has been a decline in the use of geo-social services, from 18% of smartphone owners in 2012 to 12% in 2013 due to a concern about privacy (Pew Research Center, 2013). Adoption rates by audience segment for mobile technology differ depending on the application (De Marez *et al.*, 2007). Smartphone users under 50, those in higher-income households and college graduates are more likely to use location-based services (Pew Research Center, 2013). Through location-based services, a consumer can receive a location-based alert about a special offer available for one hour only on his/her favourite wine when he/she is close to a wine retailer, assuming the consumer has opted in. This is facilitated by mobile technology’s distinct capacity for targeting by both location and time (Ghose & Han 2011, Shankar *et al.*, 2010).

However, while location-based services may be attractive to marketers, permission from the consumer needs to be taken into consideration. In their article about success factors for mobile marketing, Scharl, Dickinger & Murphy (2005) reported that practitioner experts in mobile marketing deemed that permission-based campaigns are essential to the success of any mobile marketing communications strategy. Even with permission, marketers need to manage their mobile marketing such that the communications are not seen as too intrusive (Lamarre, Galarneau & Boeck, 2012). This applies equally to m-commerce. Unlike personal computers, mobile phones are very personal and constant companions to their owners (Shankar *et al.*, 2010), such that one’s mobile phone could be the first thing one checks upon waking up and the last thing one checks before going to sleep.

Buying a product and sharing information in real time are two inherent aspects of the new consumption experience (Pelet & Papadopoulou, 2013). Behaviours are increasingly affected by the way consumers use the web to make purchasing decisions. As more consumers access social media via mobile devices, it changes the way they research and shop for products and services (Pelet & Papadopoulou, 2013). M-commerce hasn’t surpassed e-commerce yet, but the rapid growth of mobile telephony has fuelled the expansion of mobile commerce (Lee & Benbasat, 2004). The mobile Internet has unique strengths because users can connect to it wherever and whenever they want (Kakihara & Sorensen, 2001). This offers companies the opportunity to conduct marketing campaigns that can drive both the company’s mobile and in-store traffic and sales in ever expanding possibilities. Applications (especially when they are free) have become a way of life for consumers and can address each stage of the consumer purchase funnel - awareness, engagement, consideration, conversion and loyalty (Pelet & Papadopoulou, 2013). Smartphone penetration favours the surge in mobile shopping of wine, as consumers can be connected to social networks with embedded location-based applications.

Location-based applications help brands to locate their fans and target their mobile strategy to quickly interact with shoppers. Consider the scenario of someone walking on a street receiving an SMS on her/his mobile phone, indicating that Restaurant X on the same street is offering her/him a glass of wine if s/he turns up within the next hour. The person who receives this alert is a fan of the X restaurant brand on a social network such as Facebook. S/he has opted to allow Facebook’s geo-social service to locate her/him anywhere anytime. At the same time, the restaurant has learned that this person is also fan of this particular wine, and has friends who also are fans of the food they cook and the wine they serve, so invitations are sent to these people as well. Availability of informative and communicative m-services regarding local gastronomy and wine consumption is also important for tourists, a fact that highlights the importance of the tourism sector to enhance wine consumption (Katsoni & Dionysopoulou, 2013).

2.4 Online wine marketing

There are differences between online and in-store wine purchasing habits, with trust being important for the first time online buyer (Quinton & Harridge-March, 2008). Online wine purchases also tended to be larger, likely due to shipping charges (Stening & Lockshin, 2001). With rising online wine sales (Berglund & Tinney, 2008), e-commerce is becoming more widespread in the wine industry with a variety of tools available to provide customer interaction and influence, such as social networks, blogs, vlogs, podcasts and online virtual communities (Thach, 2009). Although adoption of these tools in the United States has been moderate, Thach (2009) found that the most commonly used tool was wine vlogs or wineries featuring videos on their websites. More recently Wine.com has launched its “customized pages featuring personalized product recommendations for individual customers. Customers who log into the site will receive unique recommendations based on their recent purchases, product searches and purchases made by customers deemed similar to them. Another recent site addition made to enhance the customer shopping experience is the Wine.com Tasting Room, an educational resource to help customers learn about and explore new wines” (Technology Business Journal, 2012). Quinton & Harridge-March (2008) recommend that online wine retailers add avatars to their websites to improve the customer’s interaction experience. Many of the tools also facilitate the development of online wine communities and interaction amongst wine consumers (Horowitz, 2012). Recent studies on social media recommend that wine companies need to be involved with and manage the interaction with consumers through social networks (Reyneke *et al.*, 2011; Thach, 2010). However, another study among 18 product categories found that only 0.5% of consumers were engaged with the brands on Facebook (Nelson-Field & Taylor, 2012).

A 2011 study (Pelet & Lecat, 2012) on online wine consumption amongst students in France found limited evidence of online wine activities. Only 7.4% of respondents were members of a wine group or community. Most of the respondents ‘never’ used the Internet to look for information on wine (82.1%). When asked what would be important for purchasing wine via their mobile phone, 72.6% of them named on-time delivery to develop their trust. The fact that the wine is delivered in good condition was important to 76% of respondents. Similarly an Australian study found that only 12% of respondents had purchased wine from a website and the primary use of the Internet was for information searches and price comparisons (Bruwer & Wood, 2005). Thus while the wine industry appears to be embracing e-commerce technologies and tools, consumer use thereof seems limited.

2.5 Influences of online wine consumption

Various demographic attributes have been linked to the online wine consumer. Bruwer & Wood (2005) found the Australian online wine consumer to be predominantly male, aged 35 – 44, better educated and more affluent than the average online consumer. Trust has been found to be a major influencer of online wine purchases (Quinton & Harridge-March, 2003), with images and reputation of the wine-seller being particularly important. Recommendations by family and friends enhance trust more than media recommendations (Quinton & Harridge-March, 2008). High price was also found to influence trust particularly of unknown wine providers (Quinton & Harridge-March, 2008). Also in relation to the influence of price, Lynch and Ariely’s (2000, p. 100) experiment found that “making it easy for consumers to compare across stores need not intensify price competition.” Experience with and high usage of the Internet have been found to be positively related to online wine purchasing (Bruwer & Wood, 2005; Quinton & Harridge-March, 2008). However, we could not find empirical studies relating to online buying behaviour of wine, consistent with the conclusions of Lockshin &

Corsi (2012) who wrote that it would be important to conduct more studies on the differences between on-line and off-line purchasing, as this would improve the strategies retailers should adopt to improve sales, including direct wine sales by wineries.

3. RESEARCH METHOD AND ANALYTICAL TECHNIQUE

To answer our research question, a quantitative study examined mobile phone ownership, wine purchasing and consumption, and wine purchasing via mobile phones across six countries each of which varies in terms of wine consumption levels (Trade Data and Analysis, 2011), Internet penetration (International Telecommunications Union, 2013; United States Census Bureau, 2012) and mobile phone usage (Adobe, 2013; ComScore, 2013; Kaplan, 2012). This research involved 2,853 respondents from six countries, including France, Germany, Greece, South Africa, the U.S. and Canada. Data was collected between October 1 and December 15, 2013, using both personal and online questionnaires. The online survey resided on a landing page designed using responsive web design (e.g. adaptable to all screen sizes and devices). The questionnaire was structured into three sections: (1) use of mobile phone (2) wine purchasing and consumption and (3) m-wine purchasing.

Since the study objective was to examine wine purchasing and mobile phone usage, only participants who were above the legal drinking age in their country were included in the analysis. Non-probability criterion-based purposive sampling was used because it allowed the researchers to intentionally select participants who have experience with the central phenomenon or the key concept being explored (Hair, Bush, & Ortinau, 2009; Patton, 2002). The sample included a large number of students as they are active Internet and mobile users amounting to 42.7% of total participants. Internet users tend to be young adults with a 95% Internet usage penetration within the age group of 18–29 (Lenhart *et al.*, 2011; Pew Research Center, 2013). Hence, though our sample is heavily weighted toward younger subjects, it is argued that they are an important group of online consumers (Delafrooz *et al.*, 2010) and are useful as a sample for empirical studies in m-commerce, in line with previous research (e.g. Kim *et al.*, 2008).

3.1 Participant characteristics

The initial sample size was 3317. An initial screening for legal drinking age and ownership of a smartphone for online access resulted in 464 unusable responses. The final sample was 2853 responses. There were 870 participants from France, 645 from Greece, 502 from Germany, 306 from Canada, 296 from South Africa and 234 from the United States. The sample comprised 61% females and 39% males. Fifty-one percent of participants were aged under 25 and 19% were aged between 25 to 34 years. Eighty-one percent were Caucasian. The second largest ethnic group was Middle Eastern and Latin American (MELA), comprising 8%, followed by Asian and African at 6% and 4%, respectively. Seventy-one percent of respondents live in Western Europe, 19% in North America and 10% in Africa.

4. RESULTS AND ANALYSIS OF THE QUANTITATIVE STUDY

To attain our stated objective of understanding consumer behavior using smart phones and m-wine purchasing, we asked participants to respond to close ended questions about the type of mobile phone ownership, contract and smart phone usage. Dichotomous ordinal data was transformed where 1 represented 'Yes' and 0 represented 'No'. Cross-tab analysis was performed to explore how phone ownership, contract type and usage were represented by six countries. We employed a non-parametric method, Kruskal-Wallis, to compare phone

ownership and usage across six countries for ordinal data types. Wine consumption was examined, as well as m-wine purchasing. Data analysis involved descriptive statistics, cross-tabs and validity tests, one-way analysis of variance (ANOVA) with Tukey post hoc test for metric data and Kruskal-Wallis test for non-parametric data. One-way analysis of variance is deemed suitable since the objective of the study was to compare differences between countries (or groups) and to understand where the groups differ via post-hoc analysis.

4.1. Mobile phone ownership and use

Mobile phone ownership varies across countries, Android is more popular in France and iPhone ownership is highest in the U.S. and Canada. Blackberry was rated high in South Africa where as Classic model was in France and Germany. Windows was also very popular in South Africa (See Table 4).

Table 3: Cross-tab of phone ownership by countries

N=2853 Mobile Phone Type	Nationality (%)						Total
	France	Germany	Greece	South Africa	the U.S.	Canada	
iPhone	31.7	38.6	41.6	36.8	48.7	48.0	38.8
Android	43.2	37.3	39.8	35.8	31.2	31.0	38.3
BlackBerry	4.3	7.6	6.2	11.5	9.4	7.5	6.8
Classic	19.1	13.1	10.2	11.1	7.3	11.4	13.4
Windows	1.7	3.4	2.2	4.7	3.4	2.0	2.6

Next we wanted to examine if the types of mobile ownership differ across the six countries. We employed the Kruskal-Wallis Test. The Kruskal–Wallis one-way analysis of variance by ranks is used for comparing more than two samples that are independent. The parametric equivalent of the Kruskal-Wallis test is the one-way analysis of variance (ANOVA). The aim is to find mean ranks that are significantly different from each other in terms of mobile ownership between countries. Participants from France and Germany differ in their ownership and use of Smartphone types except classic phones. These differences are statistically significant. The percentage of participants who owned iPhone also differed between South Africa and the U.S. $X^2(1, N =530) = 7.6, p =.006$. The percentage of participants from Greece and South Africa differed in their ownership and use of Blackberry Smartphone, classic model and Windows Smartphone (See Table 4).

Table 4: Cross-country comparison: type of smart phone ownership

Types of Mobile	Kruskal-Wallis Test by Nationality	Chi-Square	Sig.
iPhone	France vs. Germany	6.7	.009**
	South Africa vs. the U.S.	7.6	.006**
Android	France vs. Germany	4.7	.030*
BlackBerry	France vs. Germany	6.7	.009**
	Greece vs. South Africa	7.8	.005**
Classic	Greece vs. South Africa	5.9	.015*
	France vs. Germany	3.9	.049*
Windows	Greece vs. South Africa	4.6	.032*

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

4.1.1 Mobile phone bills and payment

For French participants mobile phone contract type was split: 37% reported that they have pre-paid contract, 60% had a monthly contract and less than 5% reported having an annual

contract. German participants preferred monthly contract types more than any other form of contract. The majority of South African, Greek and U.S. participants reported monthly plans. Similarly, 40/60 for Pre-paid and monthly plan was observed in Canada.

4.1.2 Cross country comparison of mobile phone bills

Tukey’s multiple comparison shows that Canadian and German participants differ significantly from their French counterparts. Further, U.S. and Canadian mobile phone bills differ significantly from the French, German and Greek in US dollars (see Table 5). The U.S. and Canadian participants spent more on smart phone bills than French, German and Greek participants suggesting different levels of phone use. The average phone bill spent across the sample was \$60 per month and the average talk time (in hours) on smart phones per week was 13 hours.

Table 5: Cross-country comparison: Mobile Phone Bill paid per month (US \$)

Tukey HSD by Nationality	Sig.
France vs. the U.S.	.001**
France vs. Canada	.000***
Germany vs. the U.S.	.043*
Germany vs. Canada	.001**
Greece vs. the U.S.	.003**
Greece vs. Canada	.000***

* $p < 0.05$ ** $p < .01$ *** $p < .001$

4.2 Wine purchase and consumption

When asked how many bottles of wine were purchased in a typical month, the mean difference was significantly different between countries. Thirty-eight percent of French respondents within the drinking age reported buying no wine and the remainder reported buying only one bottle of wine per month. Sixty percent of respondents in Germany mentioned buying one bottle of wine and the remaining 40% bought two bottles of wine per month. Greek respondents varied in wine purchases per month: 37% bought two bottles, whereas 58% reported buying three to four bottles of wine per month. South African respondents bought more wine compared to the other six countries with 34.8% reporting they purchased four bottles; 48% reported five bottles; and 17.2% bought six bottles of wine per month. 9.8% of all respondents from the US mentioned they bought more than 7 bottles of wine per month. Interestingly all respondents from Canada reported that they did not buy wine despite being in legal drinking age. When participants were asked to reveal glasses of wine consumed during a week 80% said they drink 0-5 glasses, 14% mentioned drinking 6-10 glasses of wine/ week, 2.6% revealed drinking 11-15 glasses of wine, 1.5% reported drinking 16-20 glasses per week and another 1.5% reported drinking more than 20 glasses of wine per week. In terms of drinking South African respondents reported drinking more wine than respondents from France, Germany and Greece.

Table 6: Cross-country comparison: glass of wine consumption per week

Tukey HSD by Nationality	Sig.
France vs. South Africa	.000***
Germany vs. South Africa	.000***
Greece vs. South Africa	.000***

* $p < 0.05$ ** $p < .01$ *** $p < .001$

4.3 Wine and mobile

The majority of wine was purchased in supermarkets, accounting for 56% of total responses. 21% reported buying wine from hypermarkets and 12% chose wine shops to purchase wine,

3% used laptop/desktop–Internet to purchase wine and only 2% reported purchasing wine via mobile apps (See Table 8). To investigate m-commerce, respondents were asked to state what types of product/services were purchased via a smart phone: 11% (clothes), 10% (books), 9% (travel product) and only 2% reported buying wine using Internet enabled smart phones.

Table 7: Cross-country comparison: modes of wine purchase

N=2853		Frequency (%)
	Supermarket	55.9
	Hypermarket	21.0
	Wine Shop	11.9
	Internet	3.0
	Mobile Apps	1.6
	Wine Fair	.5
	Convenience Store	.4
	Winery	.4
	Others	5.3

5. CONCLUSION, LIMITATIONS AND IDEAS FOR FUTURE RESEARCH

This paper examined the extent of m-commerce in wine purchasing, the combination of smart phones and social media and the consumer as an omnichannel shopper in wine purchasing, using comparisons among six countries: France, Germany, Greece, South Africa, United States, and Canada.

This empirical examination across six countries established a low prevalence of m-wine purchasing which suggests m-wine purchasing remains in an infancy stage. The infancy of m-commerce suggests that a solution to gather and mine data about m-consumption is yet to be found. Active m-commerce users browse and purchase a few items on the mobile web but many brands still don't have the proper interface and many consumers still prefer a bigger screen. As a result, it is not easy to link user comments to their browsing and purchasing history.

5.1 Limitations and future research

Our research was limited to 6 countries. Interesting additions for future research could be China and Russia, both with growing wine consumption. Further, this examination was restricted to understanding device use and wine purchasing behaviours. Future research is recommended to examine attitudes towards m-wine purchasing to identify the benefits and barriers of m-wine purchasing. Specifically, a comparison between m-wine purchasing users and non-users is recommended to understand how barriers can be overcome to further extend uptake of m-wine purchasing behaviour.

The topic of m-commerce, social media and wine has future research potential because it is a growth area. With the tech-savvy millennials now consuming 24% of the total volume, according to the Wine Market Council and with AC Nielsen in March (2011) indicating that Internet and mail-order are representing 10% of the total wine sales in the UK, these data show that Internet purchasing is becoming increasingly important. Social networks highlight the advantage of good service on an m-commerce website, as this translates into satisfied customers who will become brand advocates. When customers tell others about a negative experience, they often do so on social networks. This is why social networks must be taken into account when planning an m-commerce strategy. Consumers can be quick to punish those who are slow to respond to questions or fail to deliver their purchases on time, for example. Wine

marketers that stumble stand to lose business to rivals and become vulnerable to negative social buzz.

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Exploring the Impact of Social Media Practices on Wine Sales in U.S. Wineries

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Exploring the Impact of Social Media Practices on Wine Sales in U.S. Wineries

Purpose: To investigate the impact of social media practices on wine sales in U.S. wineries as perceived by winery owners and general managers.

Design/methodology/approach: Online survey research methodology involving a sample of 375 U.S. wineries. MS Excel software was used to analyze data, including descriptive statistics and ANOVAs.

Findings: Results illustrate that 87% of wineries in the sample report a perceived increase in wine sales due to social media practices. The use of multiple social media platforms, rather than just a couple, is statistically significant with reported increases in wine sales.

Practical implications: Wine marketers in the U.S. should consider adopting social media to the marketing mix, especially for smaller wineries. The results suggest to start with Facebook and to insure the winery owner responds to consumer comments on TripAdvisor and Yelp.

KEY WORDS: Wine, Social Media, Revenues, Wine Sales

The concept of *social media* entered the realm of business and industry in the mid 2000's, and since that time has created much interest and controversy as a new means of advertising products and services. Defined as user generated content delivered via the web and mobile based technologies, social media allows users to communicate, discuss, recommend, co-create, and modify content (Kaplan & Haenlein, 2011). Common applications include Facebook, Twitter, Wikipedia, Pinterest, and a myriad of mobile apps for smart phones.

Since its inception, various industries have adopted social media, but there have been conflicting reports regarding the return-on-investment of using these new tools. One such industry is wine, which has a high level of confusion for consumers due to more than 10,000 labels on the market (Mondavi, 2008). As a result of this, wine consumers are more apt to rely on experts and friends to help them determine which wine to purchase (Gergaud and Chossat, 2003). In the past, they consulted books, magazines and newsletters, but increasingly they use social media to seek advice from friends and acquaintances, thereby reducing the risk of dissatisfying wine purchases (Leigon, 2011; Laverie et al., 2011; Wilson/Quinton, 2012). Indeed, statistics from Google search engines show that wine is one of the keywords that appear at a higher level than many other consumer products (Rosenberg, 2011).

Despite the fact that consumers use social media for wine related conversations, the U.S. wine industry has questioned whether the implementation of social media strategies has a significant impact on wine sales. Though some wineries have created positions and even a department to incorporate social media as part of their marketing and public relations efforts, others are doubtful. Accordingly, the purpose of this paper is to investigate which social media practices are perceived to have an impact on wine sales in U.S. wineries.

The research presented in this paper is both one part of a multinational collaborative study on the use of social media by wineries around the world and an extension of that research by examining how winery owners or general managers in the U.S. perceive that their use of social

media impacts sales. Well-known issues with unverified self-reported data limit the strength of any conclusions we may draw from the data; nonetheless, the findings provide interesting insight into an area of increasing importance to wineries.

1. REVIEW OF THE LITERATURE

1.1 Examples of Social Media

Some of the more common types of social media include:

- ✓ *Social Networking Sites*: where consumers create profiles, share information, and interact with friends and colleagues. Such sites include Facebook, Twitter and LinkedIn (Kaplan and Haenlein, 2010; Pitt et al., 2011). Today Facebook is the largest social networking site with over 1 billion active users (Yung-Hui, 2012), whereas in China common social media platforms include Weibo and WeChat.
- ✓ *Blogs* (abbreviation of “web-logs”): sites where users can write short articles or opinion pieces (Thach, 2008).
- ✓ *Online Photos*: sites where consumers can share photos. Examples include Pinterest, Flickr, and Yahoo Images (Pitt et al., 2011).
- ✓ *VLOGS* (online videos): Websites such as YouTube allow users to share and store videos (Pitt et al., 2011, Thach, 2008).
- ✓ *Mobile*: the ability to access online information on a mobile device, such as a smart phone. Mobile also includes geographic tracking so users can find wineries and other business within their vicinity or “check in” to let their friends know where they are (Walton, 2012). Foursquare and Foodspotting are examples of apps which function in this way.

1.2 Social Media Research in the Wine Industry

There have been several studies exploring social media practices in the wine industry. One of the earliest (Thach, 2008) analyzed Web 2.0 practices of 208 U.S. wineries and found that although 61% had online shopping for consumers, only 11% were using vlogs (video) and 2% using blogs, with a main purpose of increasing brand awareness. At that time use of social network sites such as Facebook were not yet common on winery websites. When a similar study of 324 wineries in Germany was conducted in 2011 (Szolnoki & Taits), 50% reported using social media, with Facebook as the lead platform.

More recently Alonso et al. (2013) conducted a study of wineries in Australia, Canada, New Zealand, Spain, Italy, South Africa, and the U.S., and discovered that 35% reported using social media. Of those, the number one reason was to communicate with customers about events at the winery. The second top reason was to promote and market wines.

Other studies describe how social media can be useful to wineries. Leigon (2011) suggests that social media assists with wine sales because word of mouth is so effective amongst wine consumers. Wilson & Quinton (2012) found that the socialization aspect of social media was a good fit with wine, as it allowed consumers to exchange information and encourage others to try different wines. This supports Lockshin and Corsi’s study (2012) which identified personal recommendations as one of three important influencers in purchasing wine.

Recent statistics on wine and social media show a marked increase in usage. Newman (2010) found that 700,000 people view wine-related videos every month, that there are over 7,000 wine tweets per day, and that there are more than 300 iPhone apps for wine. It is estimated

that 90% of wine drinkers use Facebook 6.2 hours per week (Breslin, 2013), and Google Analytics (2012) shows that wineries are the third most popular subject on Pinterest. The number of wine blogs is now estimated to be around 1,300 (Doyle et al. 2012).

2.3 Examples of Social Media Generating Wine Sales

Though both small and large wineries around the world are known to be using social media strategies, there are only a few documented success stories showing increased wine sales. One of the most well-known is the case of Murphy-Goode Winery, which managed with a 6-month social media strategy to obtain 880 million media displays, leading to a 130% growth in sales revenue and a 70% rise in tasting traffic (Kakaviatos, 2011).

Another example is Pacific Rim Winery located in Oregon, USA, which invested almost \$10,000 in a social media campaign in 2010 with the objective to educate consumers about the Riesling grape (Emerson, 2012). They created an online book which was available for free if consumers “liked” their Facebook page. In addition, consumers were invited to participate in a contest describing why they loved Riesling. Results showed that the campaign achieved a 15% increase in revenue by driving more than 7,000 consumers to the Pacific Rim website (Moore, 2012).

Stormhoeck, a small winery in South Africa also demonstrated an increase in revenue due to a social media campaign when they hired a blogger to write about their wines (Resnick, 2008). They also encouraged other bloggers around the world to write about the brand by shipping a free bottle of wine to them, and inviting bloggers to attend 100 dinners they organized. Results showed an increase in sales from 50,000 cases a year to 300,000.

Another more recent example is Constellation wine corporation’s use of social media. As one of the largest wine companies in the world, they established a new digital marketing division as part of their global marketing efforts, and over the last few years they have strategically placed their wines brands on different social media platforms. For example, they now have 27 brands on Facebook alone, and have received 1.5 million “likes” which they equate to a \$17 million increase in incremental retail value (Breslin, 2013). In addition they have implemented many online promotions and mobile coupons. For example, they recently conducted an email promotion for their Woodbridge brand and grew retail sales by 127%. They also placed an ad on the app “Hello Vino” which caused 13,000 consumers to include Constellation brand wines on their shopping lists. The cost of the ad was \$70,000, but they achieved in \$876,000 in retail value, creating a positive return on investment.

2. METHODOLOGY

An online quantitative survey was used to measure social media practices, perceived impact of practices on wine sales, and winery demographics. The survey was originally developed by Geisenheim University and was modified to include questions on wine sales. It included a total of 25 questions using standard 5-point Likert-type scales, simple rating questions, and short answer.

In order to measure wine sales, respondents were asked their perceptions on the following question: “In general, how much impact do you believe your social media efforts have on wine sales?” Possible answers could be: 0%, 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, More than 50%.

The survey was beta-tested, and minor revisions were made. It was launched on Survey Monkey for a period of 3 weeks in November of 2013. An email with a link to the survey was sent to the owner or general manager of each of the 7240 wineries in the *Wines & Vines Database*, requesting that they complete the survey to support wine business research in the USA. Two follow-up emails were also sent to encourage a higher response rate.

A total of 438 responses were received (6% response rate), but some had to be discarded due to lack of completion; the final sample for analysis was 375 surveys. For the ANOVA analyses, 14 additional wineries were removed from the sample because they indicated no use of social media and said that social media had no impact on their sales. The data was analyzed using the statistical functions of Excel, including descriptive statistics and ANOVAs. The descriptive statistics divided the survey responses into four categories: No Impact on Wine Sales (0%), Low Impact on Wine Sales (5% - 10%), Moderate Impact on Wine Sales (>10% - <30%), and High Impact on Wine Sales (30% and above). The ANOVA analyses investigated the extent to which different factors influenced the perceived impact on wine sales. The first factor we investigated was the intensity of social media use based on the number of different social media platforms used. The second factor we investigated was whether or not the people who maintain the social media accounts are paid to do so.

3. RESULTS

3.1 Demographics of Survey Respondents

Of the 375 wineries that completed the survey, 235 (62.7%) were from California. The other 140 wineries (37.3%) represent a total of 35 states. Respondents listed over 110 different regions or AVA's other than the state. The case volume of the respondents ranged from 4 to 4 million cases per year, with an average of just under 41,100 cases. A number of respondents own no vineyards, and the most acres reported as owned as 6,500. The average number of vineyard acres owned was 121.4 among all respondents and 165.5 among those who own vineyards.

3.2 Perceived Impact of Social Media Practices on Wine Sales

The data was sorted into four categories of wineries based on perceived impact of social media practices on wine sales: (1) No Impact on Wine Sales (0%) = 48 Wineries; (2) Low Impact on Wine Sales (5% - 10%) = 153 Wineries; (3) Moderate Impact on Wine Sales (>10% - <30%) = 107 Wineries; and (4) High Impact on Wine Sales (30% and above) = 67. A frequency count was then used to analyze nine common social media practices in the U.S. wine market (Table 1).

Results show that Facebook seems to be the gateway into social media for most wineries. Very few wineries that did not use Facebook used any other social media platform. Still, no specific platform seems to offer an advantage in impacting wine sales. As discussed in section 3.3, the impact of social media on wine sales is driven more by being on multiple platforms. These data suggest, however, that one form of social media engagement that may be important to driving wine sales is monitoring and responding to customer review sites such as TripAdvisor and Yelp.

Table 1: Use of Social Media by Four Categories of Impact on Wine Sales

	Impact on Wine Sales			
	None	Low (5% - 10%)	Moderate (15% - 25%)	High (30% +)
(N =)	48	153	107	67
Major Social Media Practices				
Using Facebook	67%	95%	96%	99%
Twitter	35%	60%	72%	78%
Online Videos	13%	39%	37%	51%
Blogs	15%	19%	25%	34%
Reading Blogs	21%	42%	40%	52%
Writing Comments	13%	10%	21%	24%
Use Google +	4%	13%	21%	25%
Online Photos, e.g. Instagram	9%	27%	38%	49%
Monitor/Respond to Tripadvisor/Yelp	21%	47%	47%	60%

The analysis also looked at the purpose of using social media within the four categories of wineries (Table 2). Not surprisingly, wineries that do not have a clear idea of what purposes are served by using social media are less likely to see a strong impact on their wine sales. Beyond that, more research is needed to determine the benefit to wineries of having clear defined objectives for the use of social media or whether wineries benefit more from using social media to pursue multiple objectives.

Table 2: Goals for Social Media by Four Categories of Wine

	Impact on Wine Sales			
	None	Low (5% - 10%)	Moderate (15% - 25%)	High (30% +)
(N =)	48	153	107	67
Reasons to Use Social Media				
Consumer service	19%	48%	64%	60%
Getting new consumers	48%	75%	88%	93%
Advertisement for my winery	40%	69%	82%	93%
Information about events	48%	72%	89%	90%
Information about wine tasting	29%	50%	68%	73%
Public relation	38%	65%	80%	85%
Communication with consumers	46%	82%	88%	94%
Communication with other wineries/companies	19%	29%	33%	55%
It is not exactly defined	38%	5%	3%	3%

A third analysis examined who was managing social media efforts within the winery (Table 3). The good news for winery owners is that the effectiveness of using social media does not seem to depend on expertise in that field. The bad news is that social media seems to be most effective when the owner is the one responsible for maintaining the social media accounts and keeping the information current. Benefiting from social media requires an investment of time, and often it is the owner's time that has the greatest impact on wine sales.

Table 3: Who’s Doing Social Media by Four Categories of Impact on Wine Sales

	Impact on Wine Sales			
	None	Low (5% - 10%)	Moderate (15% - 25%)	High (30% +)
(N =)	48	153	107	67
Myself	25%	42%	52%	52%
Family Member	9%	8%	13%	9%
Friend Not Paid	4%	1%	1%	0%
Friend Paid	4%	1%	2%	2%
Employee	25%	41%	30%	31%
External paid	2%	2%	2%	4%
Not yet started	31%	5%	0%	2%

3.3 Factors Influencing Impact of Social Media Practices on Wine Sales

The data was also analyzed using an ANOVA. Here we examined three factors that seemed to have the potential to influence the impact that social media practices have on wine sales. For the dependent variable we used the reported impact of social media use on wine sales. Survey respondents could choose between 0% and 50% in five percentage-point increments or choose “more than 50%.” For purposes of the ANOVA analysis, we replaced “More than 50%” with 55% for the six wineries out of 361 respondents (6%) to choose that response.

The first analysis was to see if wineries benefit from taking a diversified approach to using social media rather than focus on one or two platforms. We divided the sample into three groups based on how many social media platforms they reported using: wineries using no more than two platforms (30% of the wineries), wineries using three to five platforms (45% of the wineries), and wineries reporting to use six or more platforms (25% of the wineries). Results (Table 4) show wineries that use more social media platforms tend to experience a greater impact on wine sales from their use of social media.

Table 4: Impact of Use of Multiple Social Media Platforms on Wine Sales

SUMMARY						
<i>Number of Platforms</i>	<i>Count</i>	<i>Sum</i>	<i>Average*</i>	<i>Variance</i>		
Two or Fewer	107	13.65	0.12757	0.016898		
Three to Five	164	28.25	0.172256	0.019793		
Six or More	90	19.4	0.215556	0.030092		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	0.380231	2	0.190115	8.84412	0.000178	3.020941
Within Groups	7.695656	358	0.021496			
Total	8.075886	360				

* Average expressed in decimal places rather than as a percentage

Another factor that could influence the impact of social media on wine sales is the expertise or experience of the person in charge of maintaining the social media program. As a proxy for expertise, we divided the wineries into two groups based on whether the person in charge of

maintaining social media was paid to carry out that task (41% of the wineries) or was either the winery owner or an unpaid person such as a friend or family member (59% of the wineries).

The ANOVA analysis perhaps hints that unpaid social media has a stronger influence on wine sales but does not produce statistically significant results.¹ Since social media platforms are designed to be easy to use, perhaps a combination of passion for the task and time devoted to it have a greater impact on wine sales, and both of those could possibly be lower from a person being paid to maintain the social media.

Finally, we looked at whether the size of the winery, measured by case volume, influenced the impact of social media on wine sales. The data in our sample indicate that a winery’s case volume does not play a factor in determining the impact of social media marketing, except for larger wineries where the impact of social media marketing is less. When we define a large winery as having annual production of 50,000 cases or more, the difference between the large and not as large wineries is significant at the .10 level. When the annual case production for a large winery is defined as 100,000 or more, the results are significant at the .05 level as indicated by the ANOVA analysis below.

Table 5: Impact of Winery Size on Perceived Wine Sales from Social Media

SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
100K+ cases	27	2.9	0.107407	0.008597		
Under 100K cases	332	57.95	0.174548	0.02327		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	0.112559	1	0.112559	5.069873	0.024953	3.867638
Within Groups	7.925951	357	0.022202			
Total	8.03851	358				

4. DISCUSSION, FUTURE RESEARCH & LIMITATIONS

The results of this research provide several implications for wine marketers and researchers. Of the 375 wineries which responded to the survey, at least 87% indicated perceived impact on wine sales due to social media efforts, with at least 18% of these attributing an increase in wine sales of 30% or more due to social media. This suggests, that in the U.S. market, social media is having an impact on wine sales. This implies that marketing professionals consider adopting at least some social media practices into their marketing mix. At the same time, one limitation of this study is the measurement of perceived wine sales rather than actual sales data, therefore additional research in this area is warranted.

In terms of social media practices that appear to be most beneficial, Facebook was identified as the “gateway” platform, but those who used multiple platforms seemed to gain the most

¹ The average was 0.181884 for wineries where social media maintenance was the responsibility of the owner or someone who was not paid for the task and 0.157292 for wineries that hired someone to be responsible for social media maintenance; the p-value was .0129.

advantage in terms of an increase in wine sales. Furthermore, wineries responding to consumers who posted comments on Tripadvisor and Yelp were some of those who reported the highest revenues. This indicates that wine marketing professionals need to utilize multiple platforms, and pay special attention to feedback from consumers in online forums. Other hospitality based industries such as hotels and restaurants frequently respond to customer comments on Tripadvisor and Yelp, and it appears that it may be beneficial for wineries to follow suit. Again this could be a fertile area for additional research in wine marketing.

One of the most intriguing results of this research is that of staffing the social media functions. Those wineries reporting higher wine sales indicated the owner was managing most of the social media efforts. Though this means more work on the part of the owner, it does indicate that customers do want to interface with someone who is close to the business. This also supports other research showing that customers crave authenticity in their social media interactions (Olsen & Hermsmeyer, 2008). Furthermore, though the ANOVA did not conclusively prove this, the results indicates that smaller wineries may be able to participate in social media arenas and respond to customers more quickly than larger wineries. Though one of the limitations of this study was such a diverse range of winery sizes (4 to 4 million cases), this suggestion of “smaller and more responsive” is a useful topic of future research. It implies to wine marketers that there may be a potential advantage in using social media for small wineries with relatively unknown brands.

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Reputation Management on the Internet: Content and Impact of Oregon Wineries' Websites and Facebook Pages

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Abstract

Purpose: The objectives of this exploratory study were to: 1) examine how Oregon, USA, wineries manage the reputation of their individual brands and the reputation of Oregon as a wine region on Facebook; 2) assess the frequency and content of consumer responses to reputation factors embedded in Facebook messages; and 3) compare the wineries' use of Facebook to their use of their websites to communicate reputation messages.

Design: Content analyses were conducted on the Facebook pages and websites of 20 Oregon wineries, assessing the presence of 16 reputation factors relevant to the winery and to the Oregon wine region. Consumer responses to wineries' Facebook posts were analyzed for intention to buy wine or visit a winery. Online engagement actions (i.e., Facebook likes, comments and shares) also were captured for analysis.

Findings: Wineries employed their Web and Facebook pages to promote their own brand much more frequently than to promote the Oregon regional brand. The organic/sustainable reputation factor was associated with the highest number of online engagement actions. Intentions to buy a winery's wine or visit the winery were frequently associated with Facebook posts mentioning product quality, winery status, organic/sustainable, and sense of place. More wineries discussed reputation factors characteristic of the Oregon region on their websites than on their Facebook pages.

Practical Implications: Online communication is a critical component of reputation management. Wineries have an opportunity to strategically align their website and social media messaging for maximum impact on brand awareness and customer loyalty.

Key words: reputation management, regional reputation, social media, social networking sites, Facebook

1. INTRODUCTION

A positive reputation, or corporate brand, is a critical asset of a winery or wine region. Favorable reputation is associated with a number of benefits such as profitability and the ability to charge premium prices. Over the long term, effective management of reputation is essential for building sustainable competitive advantage.

Wine reputation is enhanced by the stories that are communicated about wines and wineries. The winery website is one commonly used channel for transmitting a narrative that helps build and maintain reputation. Today, many wineries also use social networking sites (SNSs), such as Facebook and Twitter, to communicate with customers, prospects, and other stakeholders. However, the extent to which wineries use SNSs to shape their reputation is largely unexplored, as is the effectiveness of these communication channels for managing wine reputation.

The study reported in this paper explored Internet-based reputation management in the wine region of Oregon, USA. We examined the extent to which Oregon's wineries deliver reputation-focused messages via their Facebook pages and how consumers respond to those messages, while also comparing the Facebook messaging to the reputation-related content of the wineries' websites.

2. LITERATURE REVIEW

2.1. Reputation and Reputation Management

Reputation is a multidimensional, aggregate perception resulting from multiple constituent groups and multiple interactions over time (Fombrun & Shanley, 1990; Lange, Lee, & Dai, 2011; Walker, 2010). It is the corporate brand (Kitchen & Laurence, 2003), "the overall estimation in which a company is held" (Fombrun, 1996, p. 37).

Strong, favorable reputation is associated with investor satisfaction and loyalty (Helm, 2007) and with the ability to charge premium prices (Vergin and Qoronfleh, 1998). Companies with positive reputations are more likely than others to be positioned for sustainable competitive advantage, by reducing competitive rivalry and barriers to market entry (Caves and Porter, 1997; Milgrom and Roberts, 1982), and as evidenced by achieving superior financial performance and sustaining it over time (Deephouse, 2000; Roberts & Dowling, 2002; Sabate & Puente, 2003).

2.2. Regionality and Wine Reputation

While most research on reputation has been focused on individual companies, aggregate reputation is another area of focus. Aggregations include industry reputation (Barnett, 2000; Barnett and Hoffman, 2008) and country reputation (Kang & Yang, 2010; Passow, et al., 2005; Reuber & Fischer, 2011). In the study of wine reputation, there is considerable interest in the geographic region in which wine is produced.

Regionality, or the reputation of a geographic region for producing wines with a particular style (Easingwood et al., 2011), has been identified as an important factor in consumer attitudes and behavior toward wine (e.g., Bicknell & MacDonald, 2012; Combris et al., 1997; Easingwood et al., 2011; Landon and Smith, 1997, 1998; Schamel, 2006; Schamel & Anderson, 2003). An explanation for the central importance of region in wine reputation has been provided by Bicknell and MacDonald (2012), who have noted that as an experience good, a wine's attributes are best communicated to the consumer when the wine is consumed. Purchase of wine, however, often takes place before consumption, so the consumer must rely on proxy indicators of a wine's attributes when considering a purchase. Among the key proxy indicators is the reputation of the region in which the wine was

produced.

Research on regional wine reputation generally takes one of two forms: research comparing reputation or status among wine regions, and research focusing on the reputation of a particular region. Among the comparative studies is the work of Schamel (2006) who has provided evidence that regional reputation is more influential in pricing among Old World wines than among New World wines. In another study, Schamel and Anderson (2003) have highlighted increasing regional differentiation in Australia as compared to New Zealand, along with the impact of that differentiation on price premia. In the U.S., Benjamin and Podolny (1999) have examined the relative status of various wine regions in California, along with perceptions of quality, and Atkin and Johnson (2010) found that country and region were more influential than appellation in U.S. consumer judgments about wine quality.

Studies focused on the reputation of a particular wine region include the work of Benfratello et al. (2009), who found that reputational factors were more influential than sensory characteristics in driving market pricing for two Italian wines. Bicknell & MacDonald (2012) identified a pricing model for New Zealand wines that was influenced by regional reputation of various wine regions along with expert judgments of quality. Noev (2005) demonstrated the importance of regional reputation in the pricing of Bulgarian wines, and also noted the impact of varietal specialization on regional reputation. Easingwood, et al. (2011) identified three drivers of regional reputation (specialization, discussion by opinion formers, and well-defined wine style) among Australian wines. In a U.S. study of three constituent groups (wine producers, wine consumers, and wine industry professionals), Wagner et al. (2013) identified key factors in Oregon wine reputation, including handcrafted/artisanal, organic/sustainable, small family farms, community/collaboration, and stewardship of the land.

2.3. Websites, Social Media, and Reputation

The impact of marketing and public relations efforts on corporate reputation is well documented (e.g., Kioussis et al., 2007). The World Wide Web has opened a multitude of new communication channels that organizations can use to cultivate a positive reputation. A company's own website can be used to tell the company's story. That is, it can convey strategic reputation-focused messages or signals to customers and potential customers about such factors as company and product quality, sustainability efforts and regional reputation (Gill et al., 2008; Müller & Chandon, 2004; Reuber & Fischer, 2011). Web 2.0 technologies such as blogs, forums, and online videos present additional opportunities (and challenges) for reputation management (Jones et al., 2009; Thach, 2009). In addition to posting reputation-shaping messages online, companies can use these technologies to their advantage by monitoring and responding to user-generated content (Del Vecchio et al., 2011).

Like websites, social networking sites provide opportunities to send reputation signals to customers, prospects and other stakeholders. Kesavan et al. (2013) cited examples of companies (e.g., Starbucks and Toyota) that have employed various social-media platforms to inform consumers about their corporate social responsibility initiatives, thereby enhancing corporate reputation. Sites such as Facebook, Twitter, Instagram, YouTube, and Pinterest allow for direct, timely, and even personalized communication with these constituencies. Once a customer or prospect opts to like or follow a company's page or channel, two-way communication is opened. This can be especially useful for quickly resolving customer service issues before they go "viral" (Fathi, 2008). Companies can also learn about their customers from what they say on social media. In a study of public trust of two large consumer-oriented organizations, Bertrand (2013) found that "social media insights can complement traditional customer-satisfaction, brand-loyalty and trust surveys by giving a different perspective, which is based on the observation of spontaneous and candid statements by existing or prospective customers" (p. 335).

Evidence that social-media marketing can have a positive influence on consumer behaviors is also beginning to appear in the literature. For example, Smith (2013) found that positive customer experiences with a brand's content on Facebook led to a higher likelihood of intention to act upon that content (e.g., posting a positive comment or sharing content with others). Szolnoki et al. (2013) reported that among Facebook fans of one prominent German winery, 75% reported that a recommendation on Facebook could positively impact their wine-buying behavior. Over a three-year period, 30 Facebook fans of the same winery spent 17% more on wines purchased from the winery than non-Facebook fans.

2.4. Research on Social Media in the Wine Industry

Studies involving wine and social media have documented increasing adoption of social platforms by wineries, with Facebook taking the lead. For example, Szolnoki et al. (2013) found that as of 2012, among German wineries with an online presence, 67% were using social media (up from 55% in 2011), and 40% intended to increase their social media activities in the future. Among those using social media for business purposes, more used Facebook (70%) than any other platform. Bouquet's most recent survey (2012) of American and French wineries found that 94% of American respondents had a Facebook account and 75% had a Twitter account, while the percentages for French respondents were 61% and 48%, respectively.

A number of recent studies have endeavored to measure the use and effectiveness of social media for wine marketing. Nicholls (2012) identified four common communication strategies used by 12 leading U.K. alcohol brands, including three wine brands: "real-world tie-ins" (promoting brand-sponsored offline events); "interactive games" (surveys, quizzes and competitions with prizes); "sponsored online events" (links to brand-specific content posted elsewhere on the Internet); and "invitations to drink" on specific days of the week (p. 487). Similarly, Szolnoki et al. (2013) found that the German wineries used social media to "distribute information about their estates' events (84%), to promote their wines (63%), ... to gain new customers and to serve existing customers" (pp. 5-6). Dolan et al. (2013) found essentially the same objectives in their analysis of the Facebook pages of 14 South Australian wine brands: "increasing visitation through promotion of events, communicating sales and promotion of products and thirdly, relationship and community building amongst consumers" (p. 3). Another research focus has been measurement of the overall social-media buzz about a winery or wine varietal (e.g., Begalli et al., 2012; Claster et al., 2010; Farshid et al., 2012; Pitt et al., 2011; Reyneke et al., 2011).

The extent to which wineries use social media—or even their websites—to manage wine reputation appears to be a largely unexplored area, despite the known value of a positive reputation and the widespread adoption of these communication channels. In a review of research on consumer behavior related to wine, Lockshin & Corsi (2012) found only five peer-reviewed papers and articles on "the use and outcomes of social media for wine marketing" (p. 15), none of which focused on reputation management. The authors called for more research on Internet retailing, consumer behavior online and the best ways for wineries to use social media, given the growing importance of these channels for communicating with consumers.

2.5. Research Questions

Seeing the need for a better understanding of this area of winery reputation management, we embarked on an exploratory study of how wineries are using their social networking accounts to shape and manage their own reputation and the reputation of their region. The study is focused on the reputation of Oregon wine, building on the work of Wagner et al. (2013), who identified several reputation factors characteristic of the Oregon wine region.

After some investigation, Facebook was chosen as the focus of this research. More Oregon wineries use Facebook than other social networking sites, and for most of them, it was their first. Thus, we expected that the content on Facebook would be more sophisticated in terms of marketing and reputation management than content on other platforms.

As noted earlier, regional reputation has particular significance in the wine industry, as consumers often use the reputation of a wine region as one factor in wine purchase decisions. So in addition to promoting the reputation of one's own winery, we were also interested in how wineries promote the reputation of the Oregon wine region. Thus, our first two research questions were:

RQ1: Which *winery-specific* reputation factors are Oregon wineries promoting on Facebook?

RQ2: Which *regional* reputation factors are Oregon wineries promoting on Facebook?

The third research question explored the impact of reputation building on consumer behavior. Because social networking enables two-way communication between wineries and their customers, we sought to observe the relationship between wineries' reputation messages and consumers' online behavior and statements of behavioral intent in response to those messages.

RQ3: How do consumers respond to the reputation messages on Oregon winery Facebook pages?

The last two research questions were focused on assessing the reputation factors promoted on Oregon winery websites and determining whether wineries were telling a consistent story on both public communication tools: websites and Facebook pages.

RQ4: Which *winery-specific* and *regional* reputation factors are Oregon wineries promoting on their websites?

RQ5: Is website- and Facebook-based reputation messaging consistent?

3. METHOD

The authors conducted two, simultaneous content analyses in the summer of 2013: one of Oregon winery websites and one of the same wineries' Facebook walls, examining both for messages on qualities about which the winery wants to be known, or wants all of Oregon to be known. The content analysis of Facebook also examined the amount and nature of consumer responses to winery posts.

3.1. Sampling method

There are more than 540 wineries in the state of Oregon (Oregon Wine Board, 2014). The majority have websites, but they differ substantially in the extent to which they are active on Facebook. When selecting wineries for inclusion in the study, we were guided by the goal of obtaining a sufficient amount of data for meaningful analyses. Thus, we sought out wineries with the most Facebook activity. After examining several indicators of activity (e.g., when the page was created, frequency of posting, date of most recent post, and number of page "likes"), we determined that the number of page likes (or fans) was the metric most reflective of regular use of Facebook over a period of time, as businesses typically accumulate fans by using and promoting their Facebook pages. We ranked Oregon wineries by this metric and selected the top 20 for inclusion in the study. The top-ranked Oregon winery had 12,277 likes, and the 20th-ranked winery had 2,235. All of these wineries had posted at least once per week in the months prior to selection and had maintained a business page on Facebook for at least a year. This method of selection resulted in considerable variety in terms of winery size, length of time in business and location; in fact, the wineries in the sample represent most of the wine-

producing areas of Oregon.

The recording unit for website data collection was the Web page; each page was a case to be assessed for the presence or absence of reputation factors. We standardized data collection by examining all first- and second-level pages of each winery’s site. We defined a first-level page as the homepage of the website (that is, the landing page at the winery’s Web address) and a second-level page as one that is listed on the homepage and can be accessed with one click (such as “About Us,” “History,” and “Our Wines”). This selection technique resulted in a sample of 267 Web pages (20 first-level and 247 second-level pages).

The recording unit for the Facebook portion of the study was “conversation,” defined as a status update posted by the winery on its own Facebook page and up to five comments posted in response by others. We limited our analysis to the text portion of the status updates, while noting when photos, videos, and links were attached to those updates. We did not analyze follow-up comments posted by the winery itself. For the Facebook analysis, we standardized data collection by capturing and analyzing the 50 most recent conversations, starting at June 30, 2013, and working backward through each winery’s Facebook timeline. This process resulted in a sample of 1,000 winery posts and 1,257 responses, or comments, with post dates ranging from August 22, 2012, to June 30, 2013.

3.2. Coding Scheme

3.2.1. Independent variables (winery messaging)

As noted above, the independent variables selected for examination in this study were derived largely from Wagner et al. (2013), who identified five common elements of the Oregon wine reputation. These factors were community/collaboration, organic/sustainable, stewardship of the land (broadened for the current study to include any reference to the terroir, and labeled “sense of place”), small family farms (broadened to include all small-scale operations), and handcrafted/artisanal (broadened to refer to all winemaking styles). To these five we added three more factors that are not specific to the wine industry but are commonly used in reputation research: product quality, product value and status of the brand or organization (i.e., winery). Brief descriptions of how these eight independent variables were operationalized in the present study are provided in Table 1.

Table 1: Reputation Factors Used in Web Page and Facebook Coding*

Community/Collaboration: Pertaining to a winery and one or more other wine industry entities that collaborate, support and/or are part of a regional wine community (e.g., regarding production, harvest, marketing, events).
Organic/Sustainable: Pertaining to a vineyard and/or winery indicating that the grapes are grown or the vineyard or winery is managed in an eco-friendly, sustainable way and/or that the wine is made sustainably.
Product Quality: Pertaining to a winery’s wine, indicating it is of high quality, generally or in a specific way. Includes references to high ratings or scores given by wine reviewers and to high-quality vintages and award-winning wines.
Product Value: Pertaining to a winery’s wine indicating that it is a good value: (i.e., good quality for the price or provides a good experience for the price).
Sense of Place: Pertaining to the geographical location of a winery and/or vineyards, or perceptions associated with the location. May include characteristics/unique qualities, terroir, landscape, descriptions of emotions evoked by location.
Small-Scale Operations: Pertaining to a winery indicating a small or boutique operation. May include references to limited production, small production, small farm, small vineyards or small estate.

Winemaking Style: Pertaining to a winery’s wine and/or processes associated with producing the wine (grape growing methods, winemaking, bottling, winemaker’s style or philosophy, specific winemaking techniques.).
Winery Status: Pertaining to a vineyard and/or winery indicating high status, including references to people holding it in high regard and/or association with high-status people or high-status events.
Other Reputation Factors: Other messages conveyed by the winery about how it should be perceived.

*Definitions reference individual wineries; parallel coding for the Oregon region referenced aggregations of Oregon wineries.

In both content analyses, references to these eight reputation factors were recorded. To assess the extent to which the wineries were promoting the reputation of Oregon as a wine region as opposed to their own reputation, we distinguished between messages about the individual winery’s reputation and those about the region, thus doubling the number of independent variables to 16 (e.g., “winery organic/sustainable” and “Oregon organic/sustainable”). Any reputation message referring to more than one winery located in Oregon was defined as a regional (Oregon) reputation message, whether the message referred to just a few wineries, all of the wineries in a viticultural area, or all of the wineries in the state. For each Web page and Facebook post, the reputation factors were coded as either present or absent, regardless of how many times they appeared on that one page or post. Coders were instructed to record any other aspect of reputation observed on the Web pages and Facebook posts in an “other” category.

3.2.2. Dependent variables (consumer responses)

We used several measures to assess how consumers respond to winery reputation messages on Facebook. First, we collected three metrics that are automatically tallied by Facebook: the number of likes, comments, and shares associated with each status update. Borrowing from Facebook terminology and common marketing parlance, we refer to these three metrics as “online engagement actions”. Then we analyzed the consumer comments to see if they expressed an intent to buy the winery’s wine (“will buy wine”) or to visit the winery’s tasting room or attend a winery event (“will visit winery”).

3.3. Intercoder Reliability Testing

Before beginning the content analyses, we engaged in a rigorous, iterative process of developing coding instructions and training our coding team, which consisted of the authors and four paid research assistants. After approximately six hours of training, the coders independently coded 10% of each sample (Web pages and Facebook posts) to test the reliability of the coding instrument. One of the authors and one assistant coded the Web pages; the other author and three assistants coded the Facebook conversations.

Krippendorff’s α (alpha) was chosen to assess intercoder reliability because it can be used for nominal-through ratio-level data, as well as small sample sizes and any number of coders (Krippendorff, 2009). Reliability coefficients for the Facebook analysis ranged from .89 through 1.0 for the 16 reputation factors and six response variables. For the Web pages, reliability coefficients ranged from .86 through 1.0. These coefficients were sufficiently high to proceed with the study (Lombard et al., 2010). The research assistants conducted the remainder of the coding. Detailed information regarding the coding instrument, procedures and instructions can be obtained by emailing the authors.

4. RESULTS

4.1. Tests of Research Questions

4.1.1. Research Questions 1 and 2: Winery-specific and regional reputation factors on Facebook

To explore Research Questions 1 and 2 (Which *winery-specific* reputation factors are Oregon wineries promoting on Facebook? and Which *regional* reputation factors are Oregon wineries promoting on Facebook?), we calculated the percent of status updates that promoted each of the eight reputation factors. As shown in Table 2, the representation of each winery-specific reputation factor was low. References to product quality appeared in the highest number of status updates (7.9%); all other reputation factors (including incidences of “community service,” “humor,” and “fun” messages that fell into the “Other Reputation Factor” category) appeared in fewer than 5% of status updates. The incidence of regional reputation factors was even lower, ranging from 0.0% to 2.2% across the factors.

Table 2: Percent of Facebook Status Updates Containing Each Reputation Factor (n=1000)*

Winery Reputation Factor	Winery-Specific	Oregon/Regional
<i>Community/collaboration</i>	1.6%	2.2%
<i>Organic/sustainable</i>	1.7%	0.0%
<i>Product quality</i>	7.9%	0.5%
<i>Product value</i>	0.4%	0.0%
<i>Sense of place</i>	1.6%	0.4%
<i>Small-scale operations</i>	0.2%	0.0%
<i>Winemaking style</i>	0.6%	0.1%
<i>Winery status</i>	4.4%	0.2%
<i>Other: community service, humor, fun</i>	3.6%	0.2%
<i>One or more reputation factors</i>	22.0%	

*Categories are not independent; a status update could contain more than one winery and/or regional reputation factor.

4.1.2. Research Question 3: Response of consumers to reputation messages on Facebook

Research Question 3 asked “How do consumers respond to the reputation messages on Oregon winery Facebook pages?” The results for this question are depicted in Table 3. For each reputation factor, the average (per status update) number of likes, comments, and shares (online engagement actions) are reported. Some of the reputation factor averages are based on small sample sizes, which may lead to some instability in the data, however, the high number of online engagement actions associated with the organic/sustainable factor is noteworthy. The final two columns of the table report the percent of status updates that received at least one response indicating a consumer’s intent to buy the winery’s wine and to visit the winery, respectively. These behavioral intentions were associated with status updates containing four reputation factors: product quality, winery status, organic/sustainable, and sense of place.

Table 3: Consumer Responses to Facebook Status Updates With Reputation Factors*

Winery-Specific Reputation Factor (n)	Average Number of Online Engagement Actions per Status Update			Percent of Status Updates with at Least One Instance of Behavioral Intention in Response Comments	
	Likes	Comments	Shares	Will Buy Wine	Will Visit Winery
<i>Product quality (79)</i>	21.38	1.51	1.10	5.0%	30.0%
<i>Winery status (44)</i>	36.70	2.14	2.00	3.7%	3.7%
<i>Community/collaboration (13)</i>	16.08	0.54	1.31	0.0%	0.0%
<i>Organic/sustainable (17)</i>	66.59	4.18	3.12	0.0%	23.1%
<i>Product value (4)</i>	60.25	2.00	6.25	0.0%	0.0%
<i>Small-scale operations (2)</i>	75.00	3.50	0.00	0.0%	0.0%
<i>Winemaking style (6)</i>	13.17	2.17	0.67	0.0%	0.0%
<i>Sense of place (16)</i>	19.81	0.88	0.63	12.5%	12.5%

*Categories are not independent; status updates could contain more than one winery and/or regional reputation factor.

4.1.3. Research Question 4: Reputation factors promoted on websites

To investigate Research Question 4 (Which winery-specific reputation and regional reputation factors are Oregon wineries promoting on their websites?), the frequency of occurrence of each of the eight reputation factors was tallied, along with the incidence of “Other” reputation data. Table 4 depicts the percent of first- and second-level Web pages on which each winery-specific and Oregon reputation factor was represented.

Table 4: Percent of Winery Web Pages Containing Each Reputation Factor (n=267)

Reputation Factor	Winery-Specific	Oregon/Regional
<i>Community/collaboration</i>	14.6%	3.7%
<i>Organic/sustainable</i>	15.7%	0.0%
<i>Product quality</i>	39.0%	0.0%
<i>Product value</i>	1.5%	0.0%
<i>Sense of place</i>	22.8%	0.0%
<i>Small-scale operations</i>	3.7%	0.7%
<i>Winemaking style</i>	19.9%	0.0%
<i>Winery status</i>	7.1%	0.0%

<i>Other</i>	0.0%	0.0%
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*Categories are not independent; Web pages could contain more than one winery and/or regional reputation factor. All correlations between mean reputation scores for web pages and Facebook were nonsignificant.

All eight winery-specific reputation factors were represented to some extent on the Web pages. Winery-specific product quality was touted more than any other factor (on 39% of Web pages analyzed). There was virtually no representation of the regional reputation factors, with nonzero values for only two factors: Oregon community/collaboration and Oregon small-scale operations.

4.1.4. Research Question 5: Consistency of reputation messages on websites and Facebook

Research Question 5 was “Is website- and Facebook-based reputation messaging consistent?” Due to the lack of observed Oregon/regional reputation factors on both platforms, analysis of this question focused on the winery-specific factors. To make direct comparisons between website and Facebook messaging, we aggregated the results for the reputation factors to the winery level. Table 5 summarizes the extent to which the eight reputation factors were mentioned at least once by the 20 wineries in their 50 Facebook status updates and on the first- and second-level pages of their websites. Notably, more wineries discussed the five reputation factors found to be characteristic of the Oregon region (Wagner et al., 2013) on websites than on Facebook, whereas similar percentages of wineries mentioned the three universal reputation factors (i.e., quality, status and value) on the two platforms. Winery status was the only factor discussed by more wineries on Facebook than on websites.

Table 5: Percent of Wineries Communicating Each Winery-Specific Reputation Factor (n=20)

Reputation Factor	Percent of Wineries Mentioning Reputation Factor on Facebook	Percent of Wineries Mentioning Reputation Factor on Website
Community/collaboration	35.0%	85.0%
Organic/sustainable	45.0%	70.0%
Product quality	90.0%	90.0%
Product value	15.0%	20.0%
Sense of place	35.0%	75.0%
Small-scale operations	5.0%	40.0%
Winemaking style	30.0%	85.0%
Winery status	70.0%	55.0%

5. SUMMARY AND PRACTICAL IMPLICATIONS

Developing and maintaining a reputation that is both positive and distinctive is a critical aspect of a company’s overall strategy for success. The importance of both a strong company reputation and a strong regional reputation is well understood in the wine industry. Among the marketing and public relations tools available to wineries, a website can be effective in shaping wine reputation. Social networking sites like Facebook present another channel through which to communicate and reinforce a winery’s or wine region’s distinctive characteristics.

In this study, we looked for five typical characteristics of Oregon's wine reputation and three universal reputation factors (quality, status and value) on the websites and Facebook pages of Oregon wineries that are active on Facebook. We found that these wineries discuss and promote their own reputation far more than they discuss and promote the reputation of the region as a whole. In fact, we found scant evidence of any effort to brand the Oregon wine region on either the Web pages or the Facebook pages of these 20 wineries. We also found that they promote seven of the eight reputation factors we studied on their websites more than on their Facebook pages. The one exception to this was status, which more wineries touted on Facebook than on their websites. Each of the reputation factors that we looked for appeared infrequently in winery Facebook messages, but collectively they appeared in 22% of the status updates we analyzed.

Wineries would do well to examine the correspondence between their website and social media messaging. Message consistency across communication channels is a central tenet of integrated marketing communications and corporate strategy, makes a brand more memorable, and can even lead consumers to view a brand as more authentic (Beverland & Luxton, 2005). Inconsistent messaging, on the other hand, represents a missed opportunity for wineries to shape perceptions of their brand and region, especially among younger consumers, who tend to use social media more than older consumers *and* represent the future of wine consumption (Nedelka, 2012; Olson, 2012).

This study is not without its limitations. Although the data examined here are more comprehensive than any other studies we have seen in this area (1000 conversations sampled across a time period covering up to 10 months of Facebook posts), the generalizability of findings may be limited because the number of wineries (20) was relatively small, and they were not selected through random sampling, nor were conversations. Nevertheless, we believe that our findings and methodology may be broadly applicable to the study of wine reputation. Because of the criteria we used to select wineries for inclusion in the study, we are confident that our findings represent the reputation-messaging realities of the most active Facebook-using wineries in Oregon, which may be considered the region's practice leaders in this area.

Further, we believe that the innovative methodology created in this study might be fruitfully applied to other wine regions in the assessment of reputation-management strategies. This exploratory study answers the call from Lockshin & Corsi (2012) for empirical research that may help wineries understand social media and its effective use. Analyzing social media "conversations" to understand both the strategies of the Facebook owner and the responses of consumers, and comparing social media content to baseline website content may continue to be useful approaches in deepening our understanding of wine reputation management.

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Motives to adopt a social media communication strategy: the case of Bordeaux wine estates and merchants¹

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Abstract

◦**Purpose:** *Social media are relevant to target Y-Generation and to attract these new consumers, without excluding traditional consumers from communication. They are easy to use and it becomes possible to measure a return on investment. What can explain that some actors engage in social media while some other do not? We try to answer this question in the case of the Bordeaux wine industry, especially for wineries and wine merchants, by identifying their motivations to engage in the digital world.*

◦**Design/methodology/approach:** *A qualitative exploratory approach is developed: 17 in-depth interviews are conducted.*

◦**Findings:** *Actors look for improvement of their notoriety and the development of interactions with consumers, customers or professionals of the sector. Some also look for repositioning their brand to change their image or aim at increasing sales directly or indirectly. They also discover new audiences and a new way of interacting with them in terms of tone, frequency, interactivity and instantaneity. The results are mostly perceived as hard to measure in terms of revenues and return on investment. The distribution system through brokers and merchants, specific to Bordeaux, helps to explain as the same time why some actors engage with social media why other do not.*

◦**Practical implications:** *Even though not active on social media, wine professionals should monitor what is said about their brand. Components of the digital approach are complementary; companies should not bet only on social media.*

Key words: social media, motivations, wine.

¹ We would like to thank anonymous AWBR referees for their comments.

1. INTRODUCTION

According to data gathered in November 2013 on Facebook, 43% of Bordeaux Grands Crus Classés had a Facebook page. Only one third of them had more than 500 fans. Figures associated with social media are impressive all around the world: 1.26 billion of Facebook active users, 500 million for Twitter, 230 million for LinkedIn... Social media respond to the deep social aspiration of human being (Schneckenberg, 2009). But despite such a trend, some wine actors are very active on social media while some others did not start to embrace them. Even if Wilson and Quinton (2012) recognize that the use of social media in the wine industry is in its infancy, such a dichotomy is surprising. The aim of this paper is to understand why it exists and as such to determine the motivations of actors to be active on social media. We focus on the company side.

Social media can be defined as "software tools which enable individuals to share information, collaborate, create and grow communities" (Berners Lee et al., 2006, p. 34). Social media are diverse but main categories are blogs, microblogs like Twitter, professional social networks like LinkedIn, personal social networks like Facebook, content communities like Youtube for videos or Instagram for pictures, recommendations websites like Tripadvisor. The wine sector has some dedicated ones where users can share information and tasting notes: Snooth, Vinogusto, etc.

As a typical experience good, wine generates some classical information issues on markets. In such a context, wine consumers seek for information (Storchmann, 2011) and for risk reducers in purchase (Spawton and Bourqui, 1997)². Social media can be a tool to provide information as well as to increase consumer involvement in wine, through advice and recommendation (Halliburton and Ziegfeld, 2009). Social media has established a contemporary version of word of mouth, 'eWOM', as an important communication channel (Gruen et al., 2005). For Orth and Reisner (2011), some 'loyal leaders' have some extensive social networks, a high level of wine expertise, some strong communication skills and are likely to be followed in their recommendations. The emergence of Millennials – Gen-Y, those born between early 1980s and 1999, constantly digitally connected – as wine consumers is also associated with the development of social media, given that their purchasing power is driven by five major characteristics: internet proficient, diversity conscious, positive and practical, belief in fun, environmentally and socially aware (Thach and Olsen, 2006). Lecat and Pelet (2011) surveyed more than 250 Millennials in Switzerland to analyze how they behave with Digital Social Networks (or DSN, a synonymous for social media), wine purchase and wine consumption. DSN is mainly conceived as a way to collect information (67.19%), a way to spend time (62.85%) and a place to meet and chat with other people (51.80%). Most of surveyed people are members of a group on DSN (67%) but only 7% are members of a wine group. Nearly none of them purchase wine on the Internet. The Millennials generation is very large and very market savvy when it comes to consumer purchase (Nowak et al., 2006). They spend more than 16 hours per week on the internet (excluding e-mails)

² The online wine buyer has received much attention, especially regarding trust and perception of risk. See for instance Quinton and Harridge-March (2006, 2008) for the UK consumer.

(Moriarty, 2004), they trust it and are empowered by its possibilities. In such a context, it is even more surprising to see that only few Bordeaux wineries have embraced social media, at least to try to reach Gen-Y.

On the company or supply side, social media is an interesting marketing tool, even if not recognized as such by all the actors. Reyneke et al. (2010) look for mapping wines in terms in terms of presence in a selection of social media. They reveal a noticeable overall visibility for Château Margaux higher than the other wineries. They also show that Château Lafite-Rothschild is associated with business and networking, Château Mouton Rothschild with individual findings and discussing information about the brand, Château Haut-Brion with enthusiast groups. One key finding is that some luxury wineries/brands don't have a clearly defined social media strategy. Lecat and Pelet (2011) focus on Burgundy wine growers and investigate how social media can contribute to wine sales. The limited interest and lack of understanding from wine growers of possibilities associated with social media is evidenced. Another recent literature focuses on the content. Wilson and Quinton (2012) study a set of 1500 wine tweets and find that Twitter can create soft value (no direct conversion to financial return or in the very long term only) for wine businesses but that hard value (easily converted into financial value) is not currently evident. Doyle et al. (2012) determine how commercial (i.e. marketer-dominated) and non-commercial wine bloggers signal their trustworthiness to readers. The cues used by wine bloggers are not the same according to their commercial orientation, while the frequency of the different cues seems similar.

The lack of understanding of the stakes associated with social media is probably partly due to the difficulty of measurement associated with digital reputation. Indeed, for social media, tools and methods for measurement are not common. But they exist. "Can you measure the ROI of your social media marketing?". For Hoffman and Fodor (2010), the answer is yes but it requires forgetting the traditional ROI to set new measurements that begins with tracking the customers' investments, not the company's investments. It suggests that returns from social media would not be measured in dollars but mainly in customer behavior through brand awareness, brand engagement and as a result brand loyalty. An attempt at measuring financially ROI associated with social media has been done by Kumar and Mirchandani (2012). They reveal a 40% increase of sales, 83% of the ROI and 49% of the brand awareness.

Social media are relevant to target Gen-Y and to attract these new consumers, without excluding traditional consumers from communication. They are easy to use and it becomes possible to measure an ROI. What can explain that some actors engage in social media while some others do not? We try to answer this question in the case of the Bordeaux wine industry, especially for wineries and wine merchants, by identifying their motivations to engage in the digital world.

The remaining of the paper is organized as follows: section 2 presents the methodology and the data, section 3 the findings, section 4 a discussion and conclusion.

2. METHODOLOGY AND DATA

To investigate the motivations of actors, we propose an inductive exploratory approach. We conduct in-depth face-to-face interviews, viewed as a way to facilitate the respondent to reveal attitudes, perceptions and/or motivations. Content analysis is adopted to understand the answers, make synthesis and extract information and opinions.

15 interviews have been conducted between February and September 2013 in Bordeaux area. Several profiles of wine actors were taken into account:

- 6 wineries belonging to the classified growth category, very famous and selling ultra-premium wines;
- 2 small wineries, less famous;
- 2 wine merchants, B2B oriented;
- 1 wine-merchant, B2C oriented;

Table 1 presents the main characteristics of the sample.

Table 1: Main characteristics of the interviewed companies

Name	Category	Ownership	Size (Hectares)	Production (bottles)	Turnover (millions euros)
Château Haut-Bailly	Winery	Private	30	80.000	
Château Guiraud	Winery	Private	100	100.000	
Château Brane-Cantenac	Winery	Private	75	150.000	
Château Palmer	Winery	Merchant	55	120.000	
Domaine de Chevalier	Winery	Private	45	100.000	
Château Lafon-Rochet	Winery	Family owned	45	140.000	
Château La Levrette	Winery	Family owned	7	20.000	
Vignobles Chaigne	Winery	Family owned	43	300.000	
Cordier-Mestrezat	B2B Merchant	Investors			50
Bordeaux Tradition	B2B Merchant	Family owned			12
Millésima	B2C Merchant	Family owned			22

Table 2 presents some data about their engagement on social media, especially Facebook and Twitter.

Table 2: presence on Facebook and Twitter (data gathered in November 2013)

Name	Category	FACEBOOK		TWITTER	
		Nb. Of fans	Nb. of people talking	Nb. of tweets	Nb. of followers
Château Haut-Bailly	Winery	2665	40	1393	2687
Château Guiraud	Winery	1141	122	488	883
Château Brane-Cantenac	Winery	4488	76	1137	1681
Château Palmer	Winery	4452	44	968	8718
Domaine de Chevalier	Winery	310	55	3095	2305
Château Lafon-Rochet	Winery	3602	-	-	-
Château La Levrette	Winery	571	57	1984	822
Vignobles Chaigne	Winery	178	2	4065	1101
Cordier-Mestrezat	B2B Merchant	1747	23	448	410
Bordeaux Tradition	B2B Merchant	148	-	201	270
Millésima	B2C Merchant	38692	2527	2720	2557

Regarding the different platforms used by the companies involved in the analysis, as declared by the interviewed people, it appears that despite the existence of thousands of social media, only 15 are evoked. Facebook and Twitter are systematically used. We also note that video and pictures platforms are intensively used. Most wineries target the Chinese audience through Weibo, called "the Chinese Facebook". In the sample, one actor only – a winery – use a social media dedicated to wine.

3. FINDINGS

Many early adopters admit that they had no clear objectives at the beginning of their implication in social media: their purpose was to discover a new phenomenon and understand the possible benefits. At a later stage, the main motivations are the following ones:

- Engage a dialogue, create interactions

Social media is about engaging a conversation and creating interactions with consumers. Château Palmer underlines that the specific distribution system in Bordeaux based on merchants creates a distance between the wineries and the consumers. Using social media is a way to get in touch with amateurs. “Engaging a dialogue, getting contacts, creating a network” was also the objectives of Vignobles Chaigne but with a different target: the professionals and direct customers (distributors, importers). This winery did not try to reach the wine consumers. “Interactivity” and the “instantaneity” are mentioned to be the specificity of this new way of communication. But who or what engages the dialogue differs

from one platform to another one: “With Facebook, the brand talks; with Twitter, it is the person who talks” says Château la Levrette’s owner.

- Gain visibility, notoriety, develop brand awareness:

The positive impact on the notoriety of the company is a recurrent quote from people of the sample. Young winery Chateau La Levrette’s owner reminds that she had difficulty to attract the attention of journalists when she started. Social media have been her unique tool to develop notoriety. She explains that virality operated progressively: starting with her immediate contacts, "share" function allowed extending her network so that she was followed by more people, among them some bloggers. She reports that now some journalists contact her and concludes “I managed to create my notoriety”.

Vignobles Chaigne also point out his notoriety as an “obvious result” of his presence on social media and illustrates by saying “I meet people who know me but I don’t know them”. It is similar to what Lafon Rochet’s Director reports about the videos they posted when they started with social media: “I was surprised by people I did not know who told me I saw your videos”; before explaining that with social media “you can touch much more people who want to know what you are doing.”

- Impact the positioning and the image

Château Guiraud situates the objectives of social media use within the overall context of Sauternes wine production area: an appellation with current sales difficulties and a problem of image because consumers associate sweet wines like Sauternes with *foie gras* or dessert only. For them, it is necessary to change the limitative image consumers have about Sauternes and educate them to understand that it can be paired with other meals.

Vignobles Chaigne insisted on the necessity to “control their image on internet”, their “digital identity” so that what is circulating is not only what others say about them.

Cordier Mestrezat and Bordeaux Tradition, two merchants specialized in fine wines, recalled that obtaining the best allocations from Châteaux is a key factor of success for them. For Cordier, the use of social media is part of the overall approach they initiated to change the image of the company into a more modern one, especially among châteaux in order to appear more competitive to them.

- Targeting

Some actors like Château Palmer and Château Haut Bailly target primarily the current final consumers and fans of their brand in a logic of interactions and brand loyalty. Others like Château Guiraud or Château La Levrette also insist in extending their audience. If Ultra-premium wines core consumers are wealthy people aged above 50 years, Millésima states that a specific target has been identified, the HENRYs, for High Earning Not Rich Yet: young executives, graduated from prestigious schools, having high revenues, working in sectors like finance, interested in wine and being active users of social media.

- Knowledge

Consumer knowledge is also impacted: thanks to the tools provided by the different platforms, Château Haut Bailly reports that they could learn about their fans’ countries of

origin, as well as their age and gender. How old vintages behave is also a useful source of information for the estate when consumers provide a feedback about their tasting experience. More generally, it can be learned what is “interesting for fans” interpreting to what kind of content they react. Millésima also highlights the tracking of on-line consumers’ behaviors as a source to understand them.

- The quantification of results

Compared to off-line communication, social media offer more possibilities of metrics. But it does not mean that the impact on sales can be measured. In the sample, only Millésima has a rather clear vision of the business generated through their activity on social media. It is related to the fact that they mainly sell online (for 70% of their business) and to final consumers so they can track the path of users from social media to their website and assess the transformation into purchases. But even though generating sales could be logically the ultimate objective of any actor, it is not spontaneously quoted by all interviewees.

- The strategic importance of social media

When asked to rate over 10-point scale how important social media are in their marketing strategy (10 being for the highest importance), the scores vary a lot, from 5.5 to 10. B2B merchants give the lowest grades. Regarding classified growths, the perception of the importance of social media in strategy is heterogeneous. Small wineries share a very high level of importance.

Interestingly, some interviewees mention spontaneously the term “indispensable” even if not consistent with the grade given. For Château Palmer (who graded 10), it is not indispensable to be present in social media although they are considered as “totally part of their communication strategy”. Vignobles Chaigne’s owner (who graded 8.5) also declares that “there are other alternatives, other ways to make one’s promotion” before adding “but for me it would be more boring”. However, Château Haut Bailly graded 6.5 but claim that “social media are indispensable, paper materials are no longer enough”.

Château Brane Cantenac interviewee states that “we can’t talk about a strategy regarding social media, the word is too strong, because sales go through merchants”. A mixed feeling is revealed when she says later: “you can do without social media and you cannot do without at the same time”. Indeed, pointing out the gap between the audience of social media (young people) and the drinkers of the wine they produce (men over 50), she explains “if we stop our social media activity tomorrow, we will sell the same number of bottles; but social media are indispensable if we want to refresh our consumers base”.

Interestingly, the same factor i.e. the distribution system through merchants, which traditionally dominates in Bordeaux, seems to determine at the same time the reasons why some actors don’t find any interest in using social media for their activity (“it is the role of merchants to ensure promotions”), and why for some others it is precisely a motivation to use them in order to have a direct contact with consumers.

4. DISCUSSION AND CONCLUSION

Our results reveal several things:

- How convinced or interrogative is the interviewee with social media. For instance, “we believe wholeheartedly in these tools to help us to develop our brand awareness” is a significant quote from Château Guiraud.
- Is the approach related to a long term vision for the company (e.g. renew the consumers base as for Brane Cantenac, Haut Bailly) or solving a short-term or mid-term issue: gain notoriety or change the image (Château La Levrette, Château Guiraud).
- A marketing / communication approach for main of the companies in the sample with the objective of promoting their brand and image (which is the case especially for classified growths) or a social / relational approach which aims at identifying the company with its owner / director and develop interpersonal relationships.

As a place where anyone can express his opinions, social media could be imagined as the driving force of a new model where no single voice is dominant. Indeed, it is for Bordeaux wines that the impact of a wine world without Robert Parker is expected to be the most significant.

Some managerial implications arise from our research:

- Even though some wineries or other actors are not interested in being active on social media, at least they should monitor what is said about their brand thanks to available tools like Google Alerts or VinTank for instance. Not being on social media does not prevent others from talking about you.
- Being afraid of the possible negative comments should not be a reason not to use social media: experiences show that an adequate answer is an opportunity of dialogue, a chance to understand consumers or customers and find a solution.

Companies should not neglect their website and bet only on social media like Facebook in their communication:

- In platforms like Facebook, the content does not belong to companies but to the social media.
- Nobody can guarantee the long term future of any platform whatever its success today.
- There is a complementarity between the various components of the digital approach: company website, social media, and visibility in search engines like Google etc.

The main limitation is linked to the fact that most wineries in the sample are classified growths. It appears that other types of wineries are interesting to be studied and also that other actors like wine brokers or trade associations/union could be taken into account.

Our data open another avenue for research. Indeed, a thematic approach to coding could be used to get more findings from interview transcripts. Beyond this aspect, further fields of

research look interesting to investigate from the consumer point of view regarding the wine education and democratization of wine that social media may contribute to. Indeed, it would be useful to understand if the extension of audience for wine brands through social media is realized with people already connoisseurs or if they manage to attract new consumers thanks to the system of “share” between friends and followers.

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Sustainable Balanced Scorecard Model for Chilean Wineries

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Abstract

The purpose of this article is to propose a Sustainable Balanced Scorecard model for Chilean wineries (SBSC). This system, which is based on the Balanced Scorecard (BSC), one of the most widespread management systems nowadays in the world, Rigby, and Bilodeau (2011), will allow the wine companies to manage the business in two dimensions: sustainability, which will measure how sustainable is the business and the temporal dimension, linking the measurement of strategic performance with the day to day. To achieve the target previously raised, a research on sustainability will be developed, along with strategic performance measurement systems and a diagnosis of the Chilean wine industry, based on in-depth interviews to 42 companies in the central zone of Chile.

On the basis of the assessment of the wine industry carried out, it is concluded that the bases for a future design and implementation of the SBSC system are in place since it was found that 83% of the vineyards have a strategic plan formally in place, which corresponds to the input of the proposed system.

Key words: Sustainability, Strategic Performance Measurement Systems, Balanced Scorecard, Wineries

1. INTRODUCTION

In light of current events such as global warming and the pervasive changes in climate that affect our world and threaten our ecosystems and economic outlook therein, sustainability has become increasingly more important and has drawn greater attention in the business world. Sustainability is a property that arises from **sustainable development**, which in turn is defined as "Development that meets the demands of the present without compromising the ability of future generations to meet their own needs" (Brundtland of the UN Commission, 1987). The wine industry, one of the oldest industries in the world (Pretorius, 2000) is no exception; however, it has been slowly assimilating sustainability in its management. In California, United States, the first program of sustainable viticulture was introduced in 1992 (Ross and Golino, 2008). However, 13 years had to go by before the first six vineyards would certify themselves under this program (Warner, 2007). Meanwhile in Chile, as recent as 2010, there was the creation of the first initiative of its kind, the national code of sustainability of the Chilean wine industry, which sought to homologate the national wine industry practice to the standards adopted by other main players in the industry. Three years later, 43 wine companies have been certified (<http://www.sustentavid.org/es/htm/listado.htm>, 2013).

Globally, this industry faces a fairly favorable scenario since according to the International Wine and Spirit Record (IWSR), the year 2010 moved a volume of 23.6 trillion liters, representing 183,1 billion with a growth of 4.5% since 2005, waiting for 2014 an increase of 3.2% compared to the year 2010, (2010 IWSR). This is reinforced by a publication of the Salon Bordeaux Vinexpo, stating that the global consumption of wine between 2012 and 2016 will increase by 5.3% (Salon Vinexpo in Bordeaux, January 2013). In this favorable scenario, Chile stands out as a relevant player, where with its 351 wine companies (Foundation ProChile, 2012) it became the seventh producer, and fifth exporter worldwide during the year 2012 (International Organization of Vine and Wine, 2013).

On the other hand, you can visualize challenges in the wine sector in regards to effective coordination and collaboration among national industry players as far as the management of relevant industry information is concerned (Chilean wine Corporation, 2007). In addition, Chilean wines use little analytical information if anything, which harms access to the super premium wines and icons markets, where competitors use applied science to increase the quality and competitiveness (Moguillansky, 2006). However, in spite of the need to address these opportunities and challenges, thus far there has not been a single system identified that is especially designed for wine enterprises, which can simultaneously measure both: internal performance and sustainability of the company.

The present article has as main objective to propose a methodology to design a Sustainable Balanced Scorecard for Chilean Wineries that helps the wine companies to measure the sustainability of the business and connect the performance of every day with the long term.

This objective will be achieved by addressing the following specific objectives:

- Literature review of the following concepts: sustainability, strategic performance measurement systems, balanced scorecard sustainability in measuring systems.
- Diagnosis of management systems used by the Chilean wine industry.
- Proposal of the conceptual framework and methodology for designing the SBSC.

2. LITERATURE REVIEW

Then the concepts that will be the basis of the methodology to be proposed will be analyzed: sustainability, measuring system performance strategic, Balanced Scorecard and the sustainability in the Management Control systems.

2.1 Sustainability

The most widely accepted model, to understand sustainability, is that of Elkington's triple bottom line (1997), which defines the three principles that underlie it:

- Environmental integrity, invites companies to ensure that human activity does not reduce the Earth's resources, understanding these as land, water and air.
- Social Equity, ensures that all members of the society have equal access to resources and opportunities.
- Prosperity, promotes a reasonable quality of life through productive capacity of organizations and individuals in the society (Holliday et al., 2002).

Although many organizations have adopted the rhetoric of sustainability in their external reports and Mission statements (Newton and Harte, 1997), the real goal may be the reconstruction of eroded legitimacy (Banerjee, 2008;) Gond et al., 2009). This skeptical point of view thrives on lack of impact within the Organization's sustainability study (Bebbington, 2007;) Milne and Grubnic, 2011), in addition to the little attention paid to the role of the sustainability management control systems which support the organizations (Durden, 2008;) Herzig et al., 2012).

In order to learn how it is understood in the global wine industry sustainability, Gergely Szolnoki (2013) developed a research, based on in-depth interviews with 15 companies in the United States, France, Germany, Italy, Spain, Hungary and Greece. One of the main conclusions of the study, is that the majority of those interviewed associated sustainability to environmental or green issues. Only some of them also considered the other two dimensions, economic and social.

2.2 Strategic Performance Measurement Systems (SPMS)

Over the past decade, a large number of companies have transformed significantly the measurement of performance and management systems. An important component of this transformation has been the adoption of systems of measurement of strategic performance (SPMS) (Franco-Santos et al., 2012, Micheli and Manzoni, 2010;) Rigby, 2009). Based on these widespread adoption processes, it has been argued that the SPMS have a beneficial impact on performance (Bisbe and Malaga, 2012;) Crabtree and DeBusk, 2008; Davis and Albright, 2004; De Geuser et al., 2009; Hoque and James, 2000) and that this impact is mainly achieved through the contribution of SPMS in successful implementation (for example, better communication, better execution, and more effective monitoring) of the proposed strategies (Mayo et al., 2005;) Kaplan and Norton, 2000, 2004; Murby and Gould, 2005).

The SPMS can be understood as a subset of PMS. Bispe and Malaga (2012) propose that SPMS are defined as those interfaces that have distinctive features such as:

- The integration of strategic with operational objectives.
- The provision of performance measures in multiple perspectives.

- The provision of a series of goals/indicators/objectives/action plans for each perspective.
- The presence of explicit causal relationships among the goals or performance measures.

On the other hand, Franco-Santos et al. (2012) defined in a more concrete way the distinctive traits of the SPMS. According to them these are, in the end, intended to support the achievement of the company's strategic objectives, to be measured through both financial and non-financial measures.

These perceptions of the SPMS have been challenged by recent research. A stream of studies suggests that the SPMS can be used not only to ensure the implementation of the planned strategies but also to shape their formulation processes (Bourne et al., 2000;) Gimbert et al., 2010; Kaplan and Norton, 2008).

Within SPMS there are tools such as the Balanced Scorecard (BSC) (Kaplan and Norton, 1992), the levers of control (Simons, 1995) and the performance Prism (Neely et al., 2002). Of these three models, the BSC is one of the most widely used strategic performance measurement systems today. 63% of the 1,230 companies surveyed in the study of Rigby and Bilodeau (2011) used the BSC. This is reinforced by 60% of the Fortune 500 companies, which used the BSC in 2011 (<http://www.leadershiprising.com>).

2.3 Balanced Scorecard (BSC)

The BSC was born in 1992 as a result of the research done by Kaplan and Norton (1992) on twelve U.S. companies, which stood out for their excellent performance measurement systems. This system proposes that the strategic objectives, indicators and action plans of a company be grouped together into four perspectives: financial, customer, internal learning and development processes (Kaplan and Norton, 1996).

Kaplan and Norton (1996) provide a procedural framework through which the BSC can be applied as a system and thus help to manage the company's strategy.

The proposed framework has four stages (Kaplan and Norton, 1996):

- "The translation of the vision", refers to the clarification and the achievement of a consensus on a version of the strategic vision of the company, that is operating at all levels of the organization, from the top level down to the local level.
- "Communicate and link", the process by which managers communicate their strategy from the top to bottom in the Organization, linking departmental and individual objectives.
- "Business planning", the financial budget is integrated with the strategic objectives.
- "Feedback and learning", offers companies the ability to develop strategic learning, cause and effect relations, and can check the operation of the strategy.

The BSC model identifies four related activities that may be critical for the majority of organizations at all organizational levels: (a) investment in learning and growth capabilities, (b) improving the efficiency of internal processes, (c) the provision of value to the customer, and (d) increasing the company's financial success. (Kaplan and Norton, 1992, 1993, 1996, 2001, 2004).

Likewise, the four classic prospects proposed in the model are:

(a) the perspective of learning and growth. This perspective reflects the ability of employees, information systems and organizational alignment to manage a business and adapt to change. The success of the process depends on qualified and motivated employees as well as accurate and timely information.

(b) the internal process perspective. A causal model of the BSC assumes that the capabilities of employees drive the improvement of internal processes. Kaplan and Norton divided the company into a generic value chain, identifying four areas of high-level processes: (1) innovation, (2) customer management (3) operations, and (4) regulations and the environment. Each of these areas may include the company's main processes and sub-processes.

(c) the customer's perspective. Identifies the outcomes associated with the delivery of the differentiated value propositions. This includes the market share in specific customers segments that are gained with target customers, the acquisition and retention of customers in specific segments and customer profitability.

(d) the financial perspective. Financial performance measures indicate if the company's strategy, implementation and execution contribute to the improvement of the company's bottom line. The financial perspective considered strategies for productivity and growth, both having direct impact on the increase in the value of the business.

Kaplan and Norton (2009) also suggested the possibility of modifying, adding new perspectives or modifying the original ones, based on the prospects that they initially defined. Skandia, for example, added a fifth perspective that focused on human resources.

In addition, Kaplan and Norton (2004) created a powerful, strategic mapping that companies can use to describe the relationship between intangible assets and the creation of value with a degree of unprecedented clarity and precision. The strategy map can be used to link the processes with the desired results, evaluate, measure and improve processes that are most critical to the company's success, and also help guide investments in human, information and organizational capital.

Today the BSC can be defined not only as a set of relevant performance measures, both at the strategic and at the operational level, but as a management tool that plays a key role in implementing the strategy, involving management processes such as planning, budgeting and development control. De Geuser et al. (2009), were able to see a positive impact on increasing the performance of the companies that use it, specifically reflected in the integration of processes and empowerment of the people.

To design a BSC, its authors Kaplan and Norton (2009), proposed a series of interviews and workshops in order to develop the necessary information that permits to use the tool effectively. However, one must mention that it is possible to identify other proposals for designing the BSC, among which it is recommended to check Göran Olve et al. (1999), Paul Nieven (2007) and Kovacevic and Reynoso (2010).

2.4 The sustainability in the control management systems.

Although sustainability has been discussed in the literature of control systems management (CSM) to describe the appearance of sustainability control systems (later SCS) as eco-control. This line of research focuses mainly on the influence of these systems in the environmental and

financial performance (Henri and Journault, 2009, 2010). Little is known about the nature and mode of integration between SCS and more traditional MCS (Durden, 2008); However, the SCS can contribute to an effective integration of the sustainability strategy only when they report to the MCSs and are not used as autonomous strategic tools (Burgelman, 1991;) Simons, 1995). If the latter occurs, the SCS can remain removed from business activities altogether, something which would make difficult, if not impossible to support the strategy reconfiguration.

In Table no. 1 (see Appendix), there are some sustainable control systems that have been proposed, identifying their names, authors, year of publication and features.

3.0 Diagnosis of the Chilean Wine Industry.

In Chile, the 351 companies in the wine industry (Foundation ProChile, 2012), stretching from the IV region of Coquimbo to the IX region of the Araucanía (<http://www.winesofchile.org>, 2013); the largest productive areas being the regions of Maule, Libertador Bernardo O'Higgins, and the Metropolitan Region, that together represent 92.2% of the total of the wine produced in the country.(Foundation ProChile, 2013)

To learn of the industry and thus to identify whether there are the basis for the design of the SBSC, a field analysis will be carried out which is subdivided into four stages: sample selection, survey design, field work and data analysis.

3.1 Sample selected

In order to identify a representative sample of the Chilean wine industry, a sample was selected as the basis for 99 exporting vineyards in Chile that form the Wine Association of Chile (2012) mainly for two reasons. First, it had to be a good size sample representing 28% of the 351 wine companies existing in Chile (Fundación ProChile, 2012). While the second reason stems from the fact that, in order to be present in the international markets which are clearly more competitive, the wineries chosen for the sample should have a greater technological development and thus be more prone to having control management systems, as it is the case of the BSC.

3.2 Survey design

The instrument designed to carry out exploratory research was a survey which was evaluated by professionals with experience in both the wine industry and the academic world. This allowed to make relevant improvements that were reached after two months of work, in terms of the best option to be used for this phase. Likewise, the survey was divided into two sections, the first concerning the background of the company, while the second consisted of analyzing with respect to the BSC, the conditions prevailing in the company for the design of the model, the presence of the BSC in the enterprise, the evaluation of the degree of implementation of the BSC and the effectiveness of the implemented BSC. The types of questions and their distribution are presented in Table no. 2 (see Appendix).

3.3 Field work

Field work began reviewing the web pages of 99 wine companies selected, in order to identify any phone or mail through which you could communicate with them. Result of this work managed to generate a data base with 94 wine companies whose effective contacts were invited, through an e-mail, to take part in the research. To date, there have been 42 interviews done, representing 42% of the sample selected and 12% of the universe of vineyards in Chile. On the other hand, only two wineries decided to not participate in the

study, while the remaining 50 companies, after four attempts, still remain unanswered, which suggests that they are not interested in participating in the study.

Finally, the meetings were in person in the same vineyards, with an average duration of 50 minutes. These were endorsed, with physical record both the audio recording.

3.4 Data analysis

Of the 42 interviews conducted, 64% of participants were the general manager or the manager of a specific area (line manager). 55% corresponds to large companies, which have an annual turnover exceeding \$ 4.5 million. With respect to the distribution of the labor force, as often happens in companies within the agricultural industry, 82 percent of employees are technical or non-professional staff.

Within the management systems most used by companies, stand with a 43% ISO 9001 and with 40% of the cases the sustainability code of Chile. The main reason why these companies have implemented these management systems was that they were part of their business strategy, rather than using them just to follow a fad (see Table 3, Appendix).

To enter the strategic analysis of enterprises, 83% of companies said to have a strategic plan formally established, which is formulated in 60% of cases in a participative manner, i.e. involving employees of various hierarchical levels, such as managerial, under-managerial and headquarters areas. The elements that are most present in the strategic plan are in 91% of cases "The mission" and 82% of the companies, both "The Vision", as "Strategic objectives".

Only 17% of the companies says not to possess a formally defined strategic plan, where the reason for this, in 50% of cases, is that the company is in stage of development, so it doesn't have time to do so. While in 25% of cases, the reason was that the company is so small and at the same time with a fairly flat structure, which does not need to have formalized strategic plan. Finally, in 25% of the remaining cases, the cause is that a formal plan rests on several grounds, being the most important the lack of management commitment and lack of knowledge for strategic planning.

We found cases of companies which used the BSC. 14% confirmed to have designed the BSC in their company, being some of their background:

- 83% corresponds to large companies.
- More than 50% of its production is exported.
- With about 67% of them having implemented management systems, having both ISO 9001 and the HACCP. In 50% of cases it has the sustainability code of the Vineyards of Chile. With regard to this last point, it must be mentioned that to analyze the overall result in 40% of cases they have been certified in the sustainability code, however focusing on the group of companies that have developed the WCC, this increases by 10%, which makes us think that companies that possess the BSC are more prone to certify the sustainability of their business.
- With respect to the main benefits that have been achieved thanks to the implementation of the BSC, there are three: planning improvements, improvements in Control and greater alignment (see Figure 1, Appendix).

Finally, the industry diagnosis reveals that the basis are set in order to develop the SBSC that this study proposes, given that most already have a strategic plan formally in place, which will form the basis of this. On the other hand, a 14% has the BSC, which shows the real possibility

of using this type of management system in Chile and the fact that it can be used as a basis for the SBSC.

4.0 Proposal of the CONCEPTUAL framework and methodology for designing the SBSC.

The basis for the SBSC is the Balanced Scorecard (BSC) (Kaplan and Norton, 1992), the evaluation of the performance of the day to day with the long term support. On the other hand, will help measure sustainability in its three dimensions: environmental, social and economic.

You might think that the BSC already considered the evaluation of sustainability, but not in a direct way, since internal processes perspective includes social and environmental issues (Kaplan and Norton, 2004). The difference will be that the SBSC will deem two additional perspectives: **social** and **environmental** (see Figure 2, Appendix), which is something that was nonexistent in prior approaches.

The steps that one should follow to design the SBSC are six:

1 ° step: preparation for design: A meeting with the management of the wine company is held, in order to explain the benefits and requirements that would be the development of this new system that will be generated. Additionally, the extent that the new system will have within the company must also be defined, i.e. which area will be chosen to begin with the design needs to be decided upon. Then there comes the need to build the team that will work on the design of the system and continue on thereafter.

2 nd step: establish or confirm the strategic focus of the company: This stage aims to confirm whether the company has a defined strategic focus in place or not, i.e. a mission, vision, strategic objectives and strategy. If the company has these guidelines, one is to check and confirm their understanding and acceptance of these. However, if the company does not have them already defined, they should build them and elaborate on their alignment before moving on to the next stage.

Step 3: design of the Vine: Using it as a basis upon which to build on the model further, the strategic map of the BSC model defines six structural system prospects. By way of global overview, the structural prospects are located at the top of the vine, from which the strategic objectives would be established, along with the strategic performance indicators therein, and from which the sub-indicators would stem.

Economic Outlook: Seeks to answer the following question: can we generate value for current and future generations?. The above, which would help maintain a reasonable quality of life, could be represented by the following strategic goals proposed generically by Kaplan and Norton (2004):

- Improved cost structure
- Increase the value for the customer
- Sustained business value

Customer perspective: To seek to respond to the following question: what is the value proposition for our clients?, so as to gain and maintain their loyalty. In order to propose objectives that represent the reality of the companies in the wine industry, the methodology was used to design the mission, proposed by Abell (1980), which is based on three questions: what are the customer needs being met?; Who is fulfilling them? and how are these needs being fulfilled?. The first of these questions will help identify the value proposition that the company

seeks to deliver.

The Mission of each company was obtained by logging onto its website, where out of 42 companies we were able to identify 24 missions, presenting the results in table N° 4 (see Appendix).

Finally, the objectives that will be proposed for this perspective, will be:

- Improve quality
- Achieve the best wines
- Achieving sustainability
- Providing excellent service

Internal process perspective: This perspective will answer the following question: How can we deliver the value proposition that the customer requests?. Knowing what the customer wants (value proposition) is to identify what should be done internally in order to meet this. The objectives will be proposed on the basis of those formulated by Kaplan and Norton (2004).

- Reduce the production costs
- Improve processes continuously
- Improve responsiveness of the process
- Improve the capacity used in fixed assets
- Identify new products
- Develop relationship with customers

Environmental perspective: This perspective seeks to answer the following question: How do I care for being a good neighbor-friendly?. Based on the research done by Christ and Burritt (2013), which identified the specific areas of the environmental sector faced by the companies in the wine industry, we propose the following strategic objectives:

- Increase the quality and use of water
- Improve the management of organic and inorganic solid waste
- Increase energy efficiency
- Reduce greenhouse gases
- Reduce the use of chemicals

Learning and development perspective: this perspective will respond the following question: can we give continuity to the business in the future?. This perspective covers such issues as intellectual capital, generating with it, on the basis of the works done by Kaplan and Norton (2004), the following objectives:

- Improve the work environment
- Reduce turnover
- Improve the level of employee satisfaction
- Increase the powers of employees (empowerment)
- Develop information systems

Social perspective: This perspective will help answer the following question: are we good neighbors with the community in which our businesses are developed. The objectives of this approach are presented in table N ° 5 (Appendix).

Finally, once the objectives for each perspective are proposed they must be connected in a cause and effect relation.

4 th step: proposal of critical success factors: At this stage, for each of the above-mentioned strategic objectives, additional critical success factors are proposed, which are those elements that can only be words not numbers. These are intended to pave the way for the definition of further indicators that will be proposed. For example, if you think about the strategic objective of increasing earnings, two critical success factors could be income and cost.

5 step: operationalization of the strategy : In this step it is proposed to build the 3M matrix, so called due to the fact that it invites concrete proposals for each strategic objective: strategic performance indicators (measures), goals and means. For example, for the strategic objective increased business profitability, a measure could be: ROE, the goal could be an increase by 10% during the year 2014 and the environment would be the action(s) that would be proposed to support the achievement of this objective.

Step 6: breakdown of the SBSC : Finally, the system must be expanded and made pervasive down to the bottom of the organization within the wine company. To do so, one can use the management by objective methodology (Peter Drucker, 1954), in order to generate a waterfall effect to reach the operational level of the companies, thereby generating alignment with the strategic objectives already defined and consequently with the mission and vision of the vineyard. For example, having defined strategic objectives and their respective performance measures the operations manager of a business must meet with his/her direct subordinates and together they ought to define common goals. Based on these goals the performance measures ought to be proposed which assess their achievement. This process continues on until you reach the bottom of the organization.

5.0 CONCLUSIONS

You can conclude that it is possible to propose the design of a Sustainable Balanced Scorecard (SBSC), allowing the company to achieve a management level that connects the day to day with the strategy and at the same time, it is able to measure the sustainability of the business.

On the other hand, on the basis of the Chilean wine industry diagnosis done, it can be concluded that 83% of them have a strategic plan formally established, which is key for the design of the proposed system. Additionally, a positive correlation exists between the BSC and sustainability management system, which identifies that companies that do have a BSC in place are more likely to have the sustainability code of wines of Chile, which could imply that both systems could coexist without problem. The above translates in positive signals for a future successful implementation of the SBSC.

That is why, as a way to continue with the validation of the proposed system, we validate the model through the design of a company which has already been contacted and which has confirmed its interest in participating.

Appendix

Table No 1: Sustainable Control Systems

Name	Authors	Publication year	Features
Sustainability Scorecard	KPMG	2002	It considers the four BSC perspectives, in order to establish environmental performance, environmental information indicators and reporting system.
Sustainable scorecard (SBSC)	Dyllick and Schaltegger	2001	Designed as a tool to integrate and manage the value oriented to sustainability, whereas a 5th perspective, which considers environmental and social aspects.
	Figge et al.	2002	
Sustainable scorecard (SBS)	Arnold et al.	2001-2005	They propose 36 indicators of sustainability in 12 fields, in order to integrate the traditional perspective of the BSC in the dimensions of sustainability.
Balanced Scorecard to Implement Sustainability	Epstein and Wisner	2001	Incorporating to the BSC model, for each perspective, key success factors and KPI in the environmental and social dimensions
S/N	Bieker	2002	It suggests a cyclic structure of the BSC, where "Society" is added to the traditional model as a 5th perspective and also a way to provide further explanation of the cause - effect mechanisms amongst the five perspectives.
Sustainable added value	Figge and Hahn	2004	Proposed a monetary measure of the contribution of the Corporation to the achievement of sustainability
Seebalance ®	Schmidt et to the.	2005	The objective of this model is to quantify the sustainability of products and processes, based on the three pillars.
Sustainability performance measurement	Schaltegger and Wagner	2006	They propose a scheme, which manages, measures and communicates the sustainability of companies, through the link between Sustainability balanced Scorecard, accounting and communication of sustainability
Sustainability planning and Control	Bonacchi and Rinaldi	2007	Propose a multidimensional and multilevel model, which is based on a set of primary and secondary measures that are organized by using two management instruments: Sustainability DartBoard and Sustainability Clover.
Sustainability balanced scorecards for environmental services	Dias-Sardinha et al.	2007	In their proposal the classic financial perspective is called "Triple Bottom Line Value Creation", including therein objectives in the economic, social and environmental dimensions.
Sustainability budgeting, Variance Analysis, Balanced Scorecard, Life-Cycle Costing and Activity Analysis	Roth	2008	For each of this cost management tools, joined you the environmental and social dimensions.
Sustainability balanced scorecard	Hubbard	2009	It proposes a set of measures grouped into six perspectives, all four of the BSC, plus one with a focus on environmental issues and one with a focus on social aspects. In addition, it proposes a sustainability index for the organization.

Table No 2: Distribution of Survey Questions

Type of question	Quantity
Open	5
Multiple selection (Selection between alternatives)	12
Dichotomous (Only two possibilities Yes or No)	5
Scale psychometric (In this kind of question the respondent has to choose the answer using Likert rank)	14
Total Question	36

Table No 3: Most common management systems and the reason why it was implemented

Management system	Percentage	Reason	
		Market demand	Strategy
ISO 9001	43%	39%	59%
Certificate of sustainability	40%	44%	65%
HACCP	40%	53%	59%
Carbon footprint	31%	46%	46%
Clean production agreement	31%	23%	69%

Figura No 1: BSC Implementation Benefits



Figure No 2: Classic v/s New System

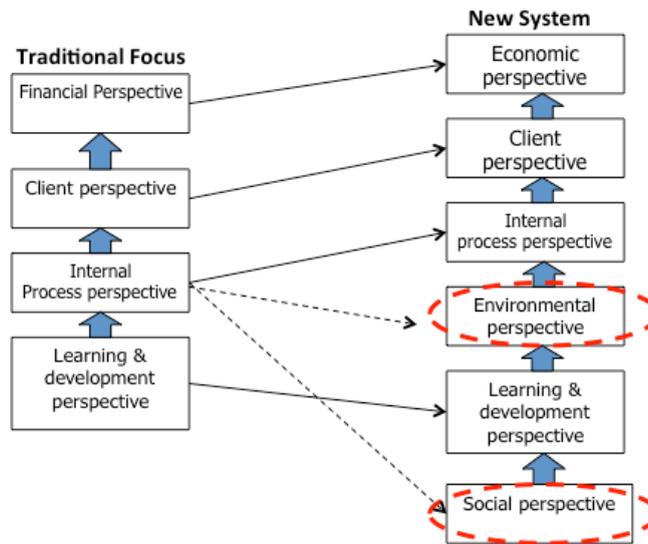


Table No 4: Proposal of value provided by Chilean wine companies

Value proposition	Percentage
Quality	88%
The best wines	25%
Sustainable	25%
Excellent service	8%
Development of employees	4%
Improve moments of pleasure to people	4%
Wines with identity	4%

Table No 5: Objective Strategic Social perspective

Strategic objectives	Source
Ethics	Sustainability Code of Chile
Improving working conditions	Global Reporting Initiative (GRI), Sustainability code and Oshas 18001
Increase engagement with the Community	Sustainability Code of Chile
Healthy and safe consumption Respect for the privacy of the consumer	Global Reporting Initiative (GRI) and Sustainability code

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Who is buying sustainable wine? A lifestyle segmentation of German wine consumers

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◦*Purpose:* In the global wine business, sustainability has become one of the most widely discussed issues. The efforts of individual wine producers as well as certification programs have made labelling of sustainability claims on wines increasingly visible. However, it is largely unknown to what extent consumers react to these claims and which consumer segments are the most appropriate targets for sustainable wines. The main research objective of this paper is a segmentation of German wine consumers.

◦*Methodology:* To fulfil this objective, we conducted an online survey (N=1,023) on German wine consumers, which included a cluster analysis based on sustainable lifestyles and product involvement. For the operationalization of wine involvement we used several items of former studies. Sustainable lifestyles were identified by the usage of items taken from the New Environmental Paradigm (NEP), Social Responsible Consumer Behaviour (SRCB), Perceived Consumer Effectiveness (PCE), altruism and Lifestyles of Health and Sustainability (LOHAS).

◦*Findings:* The segmentation revealed four consumer clusters. Within those our study identifies target groups with greater or lesser interest in sustainability. One of the four segments indicates a strong interest in both sustainability and wine. This cluster is valuable for sustainable wine producers because of its high consumption frequency and high spending per bottle. With the deeper knowledge about specific consumer behaviour, ambitious sustainable wine producers can improve their chances of business success. Therefore, the results have interesting implications for marketing sustainable wine.

Key words: Sustainability, lifestyle segmentation, involvement, consumer behaviour, wine

1. INTRODUCTION

In recent years sustainability has been making slow but steady gains in societal recognition. An increasing share of producers, retailers and consumers include sustainability in their considerations when it comes to the evaluation of consumer goods and food (Seyfang, 2006). As a consequence, regional food products, for instance, have gained relevance in recent years because many consumers attribute a better environmental performance to them (Banik et al., 2007). This has also attracted growing interest from retailers (Kögl and Tietze, 2010). Despite this emerging trend, there is no common definition of sustainability in the global wine business. Nevertheless, sustainability has become part of corporate and product branding in the world of wine.

Over the past few decades wine producers all over the world have implemented the environmental, social and economic aspects of sustainability at various stages in their business behaviour (Klohr et al., 2012a; Forbes and De Silva, 2012). Furthermore, sustainability has been integrated into their communication strategy. Companies use sustainable actions to reinforce their brand and market positioning. They also focus on their products' claims of sustainability by putting labels on their packaging. In addition, certification programs embody a new extrinsic characteristic for consumers to use when evaluating wine (Mueller Loose and Remaud, 2013; Zucca et al., 2009). Some programs that are gaining national or even international recognition are Certified California Sustainable Winegrowing, Certified Sustainable Wine of Chile, Entwine Australia, Sustainable Wine South Africa, Sustainable Winegrowing New Zealand, and FairChoice (Klohr et al., 2012b). Such a labelling strategy allows more informed consumer choices since it transforms the – at least for some consumers – important but unobservable credence attribute 'sustainability' into an easy-to-detect search attribute, that is the existence of a label (Theuvsen et al., 2013).

Thus, despite the various attempts of wine makers to use sustainability claims as marketing tools, it is largely unknown to what extent the communication of sustainability adds value to consumers' perception of wine. Since the target group for sustainable wines has not yet been clearly defined, this study aims to identify and characterise German wine consumers and to find out how much they consider sustainability aspects when making their buying decisions.

2. LITERATURE REVIEW

Several research projects have already covered the impact of production practices on wine consumers. Most of these studies deal with organic wines (e.g. Brugarolas Mollá-Bouzá et al., 2005; Delmas and Grant, 2008; Mann et al., 2012) or are limited to the environmental aspects of the production process (e.g. Barber et al., 2009; Barber, 2010; Bazoche et al., 2008). Only a limited number of studies consider the three essential pillars of sustainability – environmental, social and economic aspects – as a whole, and most of these focus on a single region or country (e.g. Zucca et al., 2009; Forbes et al., 2009). German wine consumers were analysed regarding their sustainable consumer behaviour within the cross-cultural studies of Remaud et al. (2010) and Loveless et al. (2010). Both studies provide aggregated results and segmentations on a multinational level. Concerning the awareness of sustainability claims, Mueller Loose and Remaud (2013) offer deeper insights into findings on the national level. Loveless et al. (2010) find that sustainability affects the buying decision in all five of the regions they evaluated (UK, Ireland, USA (west coast), Canada, and Sweden). They identify a consumer cluster that values sustainability and encompasses 29% of the consumers in those regions (Loveless et al. 2010). Both Remaud et al. (2010) and Loveless et al. (2010) state that wine markets differ in size and hence in the relevance of the cluster that values sustainability. As the literature shows, further research on the national level is needed.

In order to characterize German consumers of sustainable wine, we took certain research findings into account. In their meta-study, Verain et al. (2012) show that sustainable food consumers could be segmented into 'greens', 'potential greens' and 'non-greens'. Based on Diamantopoulos et al. (2003), who stress the limitation of sociodemographic characteristics, we focused on alternative segmentation approaches in order to identify sustainable consumers. This approach is in line with the suggestion made by Verain et al. (2012), who state that it is favourable to include personality, lifestyle and behaviour when segmenting sustainable food consumers. Therefore, we based our segmentation of consumers both on wine-buying behaviour and involvement and on personality characteristics and lifestyle concerning sustainability.

A number of constructs tested in former studies deal with sustainable lifestyles. Dunlap et al. (2000) revised the New Environmental Paradigm (NEP), which was developed by Dunlap and Van Liere (1978) and focuses the ecological mind-set of consumers. The NEP was used in a large number of studies to identify 'green' consumers (Dunlap et al., 2000). Beyond that the study of Roberts (1996) gives items to measure the social responsible consumer behaviour (SRCB). In its terminology the SRCB provides a counterpart to the role of companies in terms of a sustainable development and the corporate social responsibility (CSR). To which extend consumers take their responsibility for a sustainable development when choosing products is widely discussed (Busse, 2008). This leads to the question if consumers perceive themselves as change makers. The items of perceived consumer effectiveness (PCE) provided by Straughan and Roberts (1999) help to identify this attitude. If changes on the individual level would lead to a sustainable development on the global level, 'good' buying decisions would be based on altruism. Therefore, the items used by Clarke et al. (2003) to measure altruism were taken into account. The scope of interest as well as the perceived effectiveness of 'good' buying decisions is covered by Roberts (1996) as well as by Straughan and Roberts (1999) with the constructs of Social Responsible Consumer Behaviour (SRCB) and Perceived Consumer Effectiveness (PCE). In recent years the concept of Lifestyles of Health and Sustainability (LOHAS) has been discussed in many articles (e.g. Kirig and Wenzel, 2009; Köhn-Ladenburger, 2013). A number of items used to identify such lifestyles are provided by the Institute for Media Research and Consumer Research (IMUK, 2012).

Based on the findings of the named studies dealing with sustainability and in particular sustainable wine consumers we expect several results. First, there will be a consumer segment which values sustainability in the buying decision for wine. This segment will not be that huge in terms of share of the population but quite important in terms of volume and value of its wine consumption. Second, the identification of this segment must be based on criteria others than demographics. Lifestyle and involvement would be suitable factors for the identification consumer segments (Arnold and Fleuchaus, 2011).

3. MATERIAL AND METHODS

Our study focuses on German wine consumers. An online survey was conducted on people who consumed wine at least once in the past 12 months. The participants were recruited by the commercial panel provider Consumerfieldwork. To receive a representative online sample, we set quotas for age, gender and regional distribution, which we adjusted on the basis of the consumer analysis 2012 developed by Springer (2013). We received a dataset of 1,023 relevant respondents (N=1,023).

The benefit of conducting an online survey is the absence of interviewer bias (Van Selm and Jankowski, 2006). The topic of sustainability can be accompanied by social desirability. This bias tends to be smaller in online surveys in comparison with face-to-face surveys (Paulhus,

1984; Duffy et al., 2005; Taddicken, 2009). The weaknesses of online surveys have been widely discussed in the literature (e.g. Fricker and Schonlau, 2002; Evans and Mathur, 2005; Duffy et al., 2005; Van Selm and Jankowski, 2006; Maurer and Jandura, 2009). An online survey can reach only those people with access to the internet (Duffy et al., 2005). During our field phase in February 2013, 74.3 % of the German population above 14 years of age had access to the internet (AGOF, 2013). Furthermore, a detailed look at the online population shows that females and people aged 60 and older are underrepresented (AGOF, 2013). This potential coverage bias was handled by the setting of quotas for gender, age and regional distribution. Online respondents differ in other attributes as well. They tend to be highly educated (AGOF, 2013) and better informed (Duffy et al., 2005). This might affect the results of our research and must be borne in mind during their interpretation.

The consumer segmentation described in this paper sought to determine consumers' involvement and motives in relation to wine consumption. With this concept in mind, we created a statement battery, taking several prior studies into account (e.g. Aurifeille et al., 2002; Brunner and Siegrist, 2011; Ghvanidze, 2012) and adapting their statements. In their meta-study Brunner and Siegrist (2011) included items from a number of other studies such as Dubow (1992), Charters (2006), Lockshin et al. (2006), Bruwer and Li (2007) etc. and transferred them to the Swiss wine market. Therefore, the wine-related statement battery included items that had produced good results in those studies.

In addition, we based the segmentation on lifestyle aspects of sustainable consumption. In doing so, we considered several concepts published in the field of sustainable consumer behaviour. In two statement batteries, items were included from the NEP (Dunlap et al., 2000), SRCB (Roberts, 1996) and PCE (Straughan and Roberts, 1999). LOHAS was represented in the statement batteries through items provided by the Institute for Media Research and Consumer Research (IMUK, 2012). The segments were to be identified based on low or high product involvement in combination with a weakly or strongly sustainable lifestyle.

For the segmentation we first run two separate explorative factor analyses for both, wine involvement and sustainable lifestyle. The resulting factor scores will be part of a K-means clustering. Finally, we describe the identified segments with active and passive variables.

In order to avoid stress for the participants (Grossnickle and Raskin, 2001) in our time-consuming questionnaire, all items were tested using 5-point scales with endpoint labels. The number of response categories used to measure the various statements is widely discussed in the literature. Cox (1980) as well as Preston and Colman (2000) mentioned the popularity of 7-point scales. Nevertheless, 5-point scales are preferred by numerous researchers (Bearden et al., 2011; Grossnickle and Raskin, 2001). Dawes (2008) also stated that limiting the number of scale points has no significant effect. According to Homburg and Klarmann (2006), the data can be used similarly to data from a continuous scale and is therefore suitable for factor analysis and cluster analysis.

4. RESULTS

4.1. Sample description and data quality

From the demographic point of view the data collected are representative in terms of age, gender and regional distribution for the wine-drinking population in Germany above the age of 14. The filter questions that covered these aspects were adjusted to the data of Springer (2013). Barber et al. (2006) point out that the wine-buying behaviour may differ depending on the income level of the consumer. A comparison between our sample and the data of Springer (2013) shows no crucial difference in terms of household income, but does indicate some bias

concerning educational level (Appendix: Table A1). According to Verain et al. (2012), the effect of educational level is ambiguous. Gil et al. (2000) found lower educational levels for organic food consumers, whereas Jain and Kaur (2006) ascribe higher educational levels to green consumers.

With regard to wine-drinking behaviour, Szolnoki and Hoffmann (2013) state that in online surveys the problem of self-selection may occur. This can lead to an overrepresented group of highly involved wine drinkers. Due to the quota sampling done in our research, the problem of self-selection is not relevant (Evans and Mathur, 2005). Still, wine consumers with the two highest consumption intensities – those who drink wine once or more than once a week – are slightly overrepresented in our database compared with the data from a face-to-face survey conducted by Szolnoki and Hoffmann (2013). Moreover, the lowest consumption intensity is underrepresented (26.2% compared to 33.9%), as illustrated in Table 1.

Table 1: Intensity of wine consumption

Intensity	Own Data*		Szolnoki/Hoffmann 2013**		Deviation
	n	% of wine drinkers	n	% of wine drinkers	Percentage points
More than once a week	176	17.2	148	12.9	4.3
Once a week	199	19.5	166	14.5	5.0
Two to three times a month	226	22.1	259	22.6	-0.5
Once a month	154	15.1	185	16.1	-1.1
Less often than once a month	268	26.2	389	33.9	-7.7
	1,023		1,147		

Source: Authors' data; * Online survey; ** Face-to-face survey.

4.2. Factor analysis

As a basis for the consumer segmentation, we ran an exploratory factor analysis (EFA) to find expressive constructs for wine involvement and sustainable lifestyles. An EFA is useful for finding relationships between individual items and reducing the complexity of the tested items (Backhaus et al., 2011).

Concerning wine involvement and sustainable lifestyles, we sought to identify the underlying structures of the factors. To do this, we ran principal axis factoring (PAF). PAF is an iterative method that is useful for defining latent variables (Backhaus et al., 2011; Janssen and Laatz, 2013; Moosbrugger and Schermelleh-Engel, 2012). Since the items of thematically affiliated topics had been merged, we performed an oblique rotation using direct oblimin procedure. This methodology is useful when correlations between factors are expected (Backhaus et al., 2011).

The Kaiser criterion and the scree test (Backhaus et al., 2011) support the definition of three factors for the EFA concerning wine involvement. Items that loaded on more than one factor as well as items with a factor loading below 0.4 were excluded from the factor analysis (Backhaus et al., 2011). Out of the 14 items, 12 were included in the final solution (Table 2). In the case of the factor analysis concerning wine involvement, the measure of sampling adequacy (MSA) of the final solution was 0.773, which Backhaus et al. (2011) classify as “middling”.

The internal consistency of each factor was tested using Cronbach's alpha. For the factors *connoisseurship* and *budget drinking*, Cronbach's alpha was 0.673 and 0.632, which indicates that the reliability of the factors is “questionable” in both cases (George and Mallery, 2003), while the internal consistency of the factor *displeasure* ($\alpha=0.554$) is only “poor” (George and Mallery, 2003). We were unable to improve the internal consistency of these factors by excluding individual items. Furthermore, the interpretation the factors *budget drinking* and, in

particular, *displeasure* according to the theoretical framework is delicate. Neither factor necessarily embodies indicators for positive wine involvement. One solution for this uncertainty would be to exclude them from the model in the cluster analysis.

Table 2: Factors of wine involvement and included items

Factors/Items	Based on	Factor loading
<i>Connoisseurship</i>		
When buying wine, I pay attention to quality seals.	New	0.707
I would like to know more about the production method of the wine I purchase.	Ghvanidze 2012	0.529
When buying wine, I trust the recommendations of wine experts.	Ghvanidze 2012	0.517
When buying wine, I prefer wine from local producers.	New	0.432
I drink wine because it is a tradition in my family.	Brunner/Siegrist 2011	0.420
I put a lot of thought into the wine I buy.	Aurifeille et al. 2002	0.411
<i>Cronbach's Alpha = 0.673</i>		
<i>Budget drinking</i>		
When buying wine, I pay attention to bargains and special offers.	Brunner/Siegrist 2011	0.703
I nearly always choose one of the lowest priced wines.	Brunner/Siegrist 2011	0.694
When I buy something, I try to get value for money.	Aurifeille et al. 2002	0.485
<i>Cronbach's Alpha = 0.632</i>		
<i>Displeasure</i>		
Wine decisions are an annoying duty.	Aurifeille et al. 2002 (inverted)	0.597
I drink wine because I love the taste.	Brunner/Siegrist 2011	-0.616
Wine is something I share with friends.	Aurifeille et al. 2002	-0.424
<i>Cronbach's Alpha = 0.554</i>		

Source: Authors' data.

The EFA for the 20 items covering aspects of sustainable lifestyles resulted in three factors (Table 3). Again the Kaiser criterion and the scree test supported the extraction of three factors. Some items were excluded because their factor loading was less than 0.4 or because they loaded on more than one factor (Backhaus et al., 2011). The test of internal consistency also supported the exclusion of another item. Thus, the final solution includes 14 items. In the case of sustainable lifestyles, the final solution earns a “marvellous” classification, with an MSA of 0.912 (Backhaus et al., 2011).

In addition to the high MSA rating, the reliability of the three factors is also on a high level. With a Cronbach's alpha of 0.740 and 0.732 respectively, the factors *environmental concern* and *responsible behaviour* are “acceptable” according to George and Mallery (2003). *Sustainable consumption* attains a “good” valuation due to a Cronbach's alpha of 0.880 (George and Mallery, 2003).

Table 3: Factors of sustainable lifestyles and included items

Factors/Items	Based on	Factor loading
<i>Sustainable consumption</i>		
I don't buy products from companies that act socially irresponsible.	Roberts 1996	0.850
When buying products I pay attention that neither humans nor animals were harmed in the production.	IMUK 2012	0.730
I don't buy products from companies that disregard environmental protection.	IMUK 2012	0.725
I have switched brands because of social reasons.	Roberts 1996	0.680
I am more conscious than others of the nutritional value of product ingredients.	IMUK 2012	0.578
Given a choice, I always purchase the product that protects the climate.	IMUK 2012	0.557
I am willing to spend more money for environmentally friendly products.	IMUK 2012	0.548
<i>Cronbach's Alpha = 0.880</i>		
<i>Environmental concern</i>		
When humans interfere with nature it often produces disastrous consequences.	Dunlap et al. 2000	0.752
Humans are severely abusing the environment.	Dunlap et al. 2000	0.706
If things continue on their present course, we will soon experience a major ecological catastrophe.	Dunlap et al. 2000	0.603
The balance of nature is very delicate and easily upset.	Dunlap et al. 2000	0.473
<i>Cronbach's Alpha = 0.740</i>		
<i>Responsible behaviour (inv.)</i>		
Each consumer's behaviour can have a positive effect on society by purchasing products sold by socially responsible companies.	Straughan/Roberts 1999	-0.770
Each consumer's behaviour can have a positive effect on environmental pollution.	Straughan/Roberts 1999 (inverted)	-0.719
Contributing to nongovernmental organizations enhances the life of others.	Clarke et al. 2003	-0.469
<i>Cronbach's Alpha = 0.738</i>		

Source: Authors' data.

We computed the z-standardized regression scores to include the factors in the segmentation described below (Janssen and Laatz, 2013; DiStefano et al., 2009). According to the theoretical framework of the segmentation, the third factor in the sustainable lifestyle factoring pointed in the wrong direction. As all factor loadings of the items in this factor were negative, we inverted the factor score for this factor and called it *responsible behaviour* so that its direction is in line with *sustainable consumption* and *environmental concern*. As a result, for all three factors it can be assumed that higher positive values indicate more sustainable lifestyle.

4.3. Cluster analysis

The factor scores of the constructs *sustainable consumption*, *environmental concern* and *responsible behaviour* as measures for sustainable lifestyles as well as the construct *connoisseurship* as a measure for wine involvement were subjected to a number of K-means clusterings with different numbers of given clusters (Backhaus et al., 2011; Janssen and Laatz, 2013). Based on our theoretical construct, the four-cluster solution provides the best explanatory power (Table 4).

Table 4: Clusters and integrated factors

<i>Factors</i>	<i>Clusters</i>			
	Unconcerned non-experts	Concerned non-experts	Phlegmatics	Sustainable connoisseurs
<i>Connoisseurship</i>	-0.78_a	-0.66_a	.21 _b	.73_c
<i>Sustainable consumption</i>	-1.29_a	.01 _b	-.15 _c	.93_d
<i>Environmental concern</i>	-.97_a	.50_b	-.48_c	.73_d
<i>Responsible behaviour</i>	-1.30_a	.32_b	-.27 _c	.83_d
	n=181	n=220	n=320	n=302

Source: Authors' data; in each row a, b, c and d are significantly different at the 5% level.

According to the ANOVA (Tukey-B, $\alpha=0.05$) each of the factors showed significant differences across the clusters. Only the clusters *unconcerned non-experts* and *concerned non-experts* do not significantly differentiate with regard to the factor *connoisseurship*. The cluster *unconcerned non-experts* can be described as not interested in wine and sustainability. The *concerned non-experts* display a positive environmental concern but no interest in wine. The *phlegmatics* have an average interest in wine but are not concerned by or interested in sustainability. *Sustainable connoisseurs* are very interested in wine and live a sustainable lifestyle at the same time.

With regard to their demographics, the clusters show no significant differences in gender, regional distribution, educational level, income or household type. This result is in line with the findings of Diamantopoulos et al. (2003), who stress the limitations of demographics for identifying 'green consumers'. Using the chi-square test, we found a significant difference in the age pattern. Therefore, *sustainable connoisseurs* are older than *unconcerned non-experts*. This is contrary to the findings of Mueller et al. (2011) who found a small but positive correlation between younger age groups – namely Generation X and Y – and environmental concern.

Significant differences were identified in the wine consumption within the different clusters (Table 5). The *sustainable connoisseurs* have a higher consumption frequency than the other clusters. Only 19.5% of the *sustainable connoisseurs* drink wine less than once a month, whereas this frequency applies to 27.8% to 31.5% in the other clusters. In addition, high-frequency wine drinkers are underrepresented in the other three clusters.

When it comes to the preferred wine style, *sustainable connoisseurs* most frequently choose dry wines. Together with the *phlegmatics* they tend to dislike sweet wines. Exactly the opposite is true for *unconcerned non-experts*. Concerning preferred wine colour, no significant differences were detected.

Table 5: Clusters and wine consumption

<i>Characteristics</i>	<i>Clusters</i>				χ^2/df
	Unconcerned non-experts n=182	Concerned non-experts n=220	Phlegmatics n=320	Sustainable connoisseurs n=302	
Consumption frequency (%)					
More than once a week	12.2 _b	16.4 _b	12.8 _b	25.5 _a	37.77*
Once a week	13.3 _b	16.8 _{a,b}	23.1 _a	21.2 _a	df=12
Two or three times a month	24.9 _a	21.4 _a	21.9 _a	21.9 _a	
Once a month	18.2 _a	16.8 _a	15.0 _a	11.9 _a	
Rarer than once a month	31.5 _b	28.6 _b	27.8 _b	19.5 _a	
Preference of sweetness (white) (%)					
Dry	27.1 _b	35.8 _{a,b}	34.8 _{a,b}	40.4 _a	21.17*
Semi-dry	32.9 _{a,b}	28.5 _a	39.2 _b	35.4 _{a,b}	df=6
Sweet	40.0 _b	35.8 _b	26.0 _a	24.2 _a	

Source: Authors' data. * $\chi^2 = p < 0.05$; in each row a and b are significantly different at the 5% level.

The German wine market is highly competitive (Fleuchaus, 2011). The food retail market makes up three quarters of the total market. Within the food retail market, the average price per 0.75l bottle is €2.04 (GfK, 2013). This means that, for wine producers as well as for agents and retailers, it is crucial to know if consumers favouring sustainable products are generating more value than others. Table 6 displays the preferred price ranges by cluster. It is obvious that *unconcerned non-experts* are those consumers who buy wine at the lowest price point, under €2 per bottle (top two categories), while *sustainable connoisseurs* avoid this price range.

Table 6: Clusters and wine prices

<i>Characteristics</i>	<i>Clusters</i>				χ^2/df
	Unconcerned non-experts n=182	Concerned non-experts n=220	Phlegmatics n=320	Sustainable connoisseurs n=302	
Price level under €2 (%)					
Very often	7.2 _b	5.9 _b	4.4 _{a,b}	2.0 _a	62.89*
Often	17.7 _b	3.6 _a	5.3 _a	2.6 _a	df=9
Seldom	25.4 _a	27.3 _a	27.2 _a	24.5 _a	
Never	49.7 _c	63.2 _{a,b}	63.1 _b	70.9 _a	
Price level €6.00 to €7.99 (%)					
Very often	2.8 _c	6.8 _{b,c}	8.8 _{a,b}	13.2 _a	111.45*
Often	21.5 _b	20.5 _b	31.6 _a	35.1 _a	df=9
Seldom	33.1 _b	44.5 _a	45.0 _a	43.7 _a	
Never	42.5 _d	28.2 _c	14.7 _b	7.9 _a	
Price level €8.00 to €9.99 (%)					
Very often	2.2 _{b,c}	1.4 _c	4.4 _b	8.3 _a	106.37*
Often	7.2 _b	7.3 _b	15.6 _a	17.5 _a	df=9
Seldom	28.7 _c	35.9 _{b,c}	42.8 _b	51.7 _a	
Never	61.9 _c	55.5 _c	37.2 _b	22.5 _a	

Source: Authors' data. * $\chi^2 = p < 0.05$; in each row a, b, c and d are significantly different at the 5% level.

Our research indicates that the clusters of *phlegmatics* as well as the *sustainable connoisseurs* buy wines at higher price points. In contrast, *unconcerned non-experts* seldom buy wines over €8 per bottle while *concerned non-experts* rarely choose a bottle that falls in the price range between €6.00 and €7.99. All in all, it can be concluded that *phlegmatics* and *sustainable connoisseurs* are the consumers who buy wines at higher price points. In combination with the high consumption rate *sustainable connoisseurs* are a crucial target group in the German wine market.

5. DISCUSSION AND CONCLUSIONS

Our findings promote the growing knowledge about sustainability and especially sustainable consumers in the global wine business. The interaction of product involvement, personality and lifestyle provides comprehensive insights into consumer behaviour in the context of sustainability and wine. The items chosen concerning sustainable lifestyles, which were taken from the NEP (Dunlap et al., 2000), SRCB (Roberts, 1996), PCE (Straughan and Roberts, 1999) and LOHAS (IMUK, 2012) show a high consistency. This led to convincing results in the factor analysis. However, the items for wine involvement taken from Aurifeille et al. (2002), Brunner and Siegrist (2011) and Ghvanidze (2012) are not as robust, indicating the need for further research. Still, they led to satisfactory results. Both wine involvement and sustainable lifestyles provide strong criteria to identify consumer clusters beyond demographics and consumption frequency.

We identified four clusters with very different characteristics. *Concerned* and *unconcerned non-experts* represent 39.2% of the sample and demonstrate an interest in wine far below average. Half of them are concerned about environmental issues, which the other half have significantly less interest in sustainability. Embodied by the *phlegmatics* nearly one third of the sample is indifferent concerning wine involvement and sustainable lifestyles. The *sustainable connoisseurs*, who represent 29.5% of German wine consumers, should be the focus of the growing number of sustainable wine producers. *Sustainable connoisseurs* consume wine with high frequency and buy more expensive wines than the other clusters we identified. The size of this consumer segment, which values sustainability, is comparable to the overall result of 29% of people in all regions analysed by Loveless et al. (2010). Compared to the national values for the US (west coast) and Sweden, where 36% of consumers care more about sustainability (Loveless et al., 2010), German wine consumers tend to be more reserved in valuing aspects of sustainability. This is also in line with the results of Mueller Loose and Remaud (2013), who indicate that Germany is an average wine market when it comes to the topic of sustainability. Nevertheless, given the combination of their greater consumption rate and willingness to pay, *sustainable connoisseurs* create value for wine producers, agents and retailers. To meet their demands concerning sustainability will lead to greater market success for sustainable wine producers.

Unconcerned non-experts, who are in the market for cheap wines, need not be targeted regarding sustainability. Therefore, producers focusing on the lowest price ranges cannot expect a great effect when building their brand in a more sustainable position. Another issue in the connection between low-priced wines and sustainability is a lack of consistency. Consumers in the medium-priced mass market – the *concerned non-experts* and *phlegmatics* – show opposed interests in sustainability. *Phlegmatics* are not very aware of sustainability. Products for this target group might not benefit from adding sustainability in their brand personality. *Concerned non-experts*, on the other hand, react to sustainability characteristics in their buying decision. Thus, there is an argument for producers' implementing sustainability for the medium-priced mass market. *Sustainable connoisseurs*, who focus on the premium market,

also have an evident interest in sustainability. Therefore, products in higher price ranges should deliver both a perception of high quality and value added in terms of sustainability.

Our study identifies target groups with greater or lesser interest in sustainability. It characterizes two major consumer segments that are aware of sustainability. In a further survey, we plan to identify the sustainability claims that are rewarded by those consumers, thus promising greater market success. This is closely linked to product and communication innovations in the field of sustainable wine to meet the needs of a growing number of interested consumers. With this deeper knowledge about specific consumer behaviour, ambitious sustainable wine producers can improve their chances of business success.

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APPENDIX

Table A1: Socio-demographics of the sample

Socio-demographics	Own Data	Springer (2013)
Gender (%)		
Female	52.2	51.6
Male	47.8	48.4
Age (%)		
14–19 ¹⁾	2.3	2.7
20–29	15.2	15.2
30–39	19.6	19.8
40–49	28.4	28.3
50–59	21.1	21.3
60 and older	13.2	12.8
Highest level of education (%)		
No schooling	0.1	1.2
Lower secondary school	8.5	25.0
Secondary school	35.5	35.3
High school degree	27.3	15.9
University degree	28.7	22.6
Household net income per month (%)		
€1,000 and below	4.8	4.6
€1,000 – €1,499	9.5	8.2
€1,500 – €1,999	12.5	13.5
€2,000 – €2,499	15.5	16.4
€2,500 – €2,999	14.3	15.0
€3,000 – €3,499	11.4	13.1
€3,500 – €3,999	11.4	9.8
€4,000 – €4,499	6.4	
€4,500 – €4,999	5.9	19.4 ²⁾
€5,000 and higher	8.2	

Source: Based on authors’ dataset and Springer (2013). ¹⁾ Legal drinking age in Germany: 16;

²⁾ Springer (2013) aggregates all incomes higher than €4,000.

Extrinsic wine attributes importance on Canadian consumers purchase decisions for environmentally sustainable wines

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Purpose: this study aims at understanding the importance of extrinsic cues for environmentally friendly wines in two Canadian markets (Ontario and Québec) by investigating the most important attributes for consumers when evaluating how friendly and enticing the wine appears to be.

Design/methodology/approach: the importance that is given by Québec and Ontario consumers to fourteen different extrinsic attributes in their evaluation of how environmentally friendly the wines appears to them were assessed using a seven-point Likert type scale

Findings: this research seems to indicate that the evaluation and purchase process of environmentally friendly wines is identical to conventional ones. The evaluation and choice of environmentally friendly wines by Canadian wine drinkers are primarily driven by the price followed by other printed script cues such as: label information, alcohol level, country of origin, grape variety, region of origin and brand name. Visual and haptic cues such as closure, eco-claims, bottle weight and shape, and label were considered least important and therefore deemed supporting, rather than dominant, product cues.

Practical implications: The key implications of this perceptual analysis relate to the positioning of environmental friendly wines and the way these wines can communicate their distinctiveness.

Keywords: environmental friendly, wines, packaging, Ontario, Québec.

1. INTRODUCTION

The last two decades have witnessed a dramatic increase in environmental consciousness worldwide. Consumers are changing their behavior to integrate environmental considerations into lifestyle choices (Smith and Marsen, 2004). This change includes consumers purchasing decisions based upon how well products satisfy their needs and how these products affect the natural environment. In face of increasing consumer interest and competition, retailers and consumer goods companies are using sustainability to support their brand and develop range and price propositions that may generate a competitive advantage (Straughan and Roberts, 1999). Today's consumers know, and care more about what they buy, how it is made, what it is made from, from how far it has travels and how it is packed (Hudson et al., 2008). However, consumers' adoption of sustainable practices, attitudes, and intention to purchase environmental products remains largely unexplored, particularly in the context of wine industry.

Although sustainability in the wine industry is not new, the concept is of growing interest (Remaud et al., 2008). In recent years, more and more wine companies have claimed their organic, biodynamic and environmental friendly orientation when producing and marketing wines. According to Nowak and Washburn (2002), product differentiation, competitive advantage and increased sales could be achieved by wineries through the adoption of environmentally focused practices. However, a competitive advantage can only be gained in the market place if firms are able to communicate to consumers' about their environmental focus (Bisson et al., 2002). Marketing sustainability and promoting environmental credentials has become a challenging part of the competition between wine producers (Lockshin 2007). So far producers reacted mainly to pressure from large intermediaries such as national supermarket chains, which are motivated to improve market power against their suppliers, increase efficiency of their logistic processes and enhance a distinct environmentally friendly retailer image. This increased supply and store presence of sustainable products may increase consumer awareness and create growing consumer demand for eco-friendly food and wine (Remaud et al., 2010).

Environmentally sustainable products are credence goods; consumers cannot ascertain their environmental qualities during purchase or use (Crespi and Maret, 2005). Consumers are not present during the production process of the product and therefore cannot assess the environmental friendliness of production. Therefore, extrinsic cues such as packaging has an important function of eco-labeling, being used to reduce information asymmetry between the producer of sustainable products and consumers by providing credible information related to the environmental credentials of the product (Leire and Thidell, 2005). Eco-label logos and claims are the most used extrinsic attributes to signal the environmental attributes of wines to consumers. While organic and biodynamic are the most successful eco-claim at this stage, it is by no means the only sustainable claim. Environmental responsibility made with sustainable practices, 100% eco-friendly, carbon neutral, greener planet, fish-friendly farming. This is done not only with eco label claims, but also with combination of several packaging attributes such as lightweight bottles, recycled label paper, pictures alluding to nature protection, which are used to reinforce the environmental friendliness message of the brand. However, little is known about the extrinsic packaging attributes that wine consumers use to determine how environmentally friendly a wine is. Generally, visual packaging extrinsic attributes such as bottle weight, color and shape, label type and

color are generally considered as supporting, rather than dominant wine cues such as price, brand, variety, and country/region (Batt and Dean, 2000; Mueller and Lockshin, 2008). Is it also true for eco-labelled wines? Is the bottle weight an important cue for this type of wine from a consumer perspective?

Likewise, the Liquor Control Board of Ontario (LCBO), which is the second largest wine buyer in the world, purchases wines based on their price/quality relationship, brand value, varietal, and packaging appeal. However it gives an additional consideration to wines that address environmental concerns such as wines packed in lightweight glass and sealed with screw caps (LCBO, 2010). This seems to be contradictory and results from the poor perception and knowledge of retailers and consumers about the environmental sustainable credentials of each type of closure. However, Canadians are amongst the most environment-conscious consumers in the world (Euromonitor International, 2010). When measuring the relative importance of sustainability for wine consumers amongst five countries, Canada has scored above average (Loveless et al., 2009). In addition, Canada is in the top 10 rankings by value revealing relatively high unit prices, well-branded quality wines, and wine consumption is growing six times faster than the world average (MacGregor, 2011). Among 16 million regular wine consumers in Canada, the large majority are located in Ontario (37%) and in Québec (29%) (Wine Intelligence, 2010). However, the alcoholic drinks market in Quebec and Ontario present some divergences due to social and cultural differences. Québec consumers drink significantly higher proportions of wine to spirits compared to English Canada (5:1 instead of 3:1); which translates to a notably higher rate of wine consumption per capita (21.4 l/a versus 14 l/a per person). The Québec population also has a strong tendency to buy premium wine, consume wine with meals, and become highly involved with the product (36% against 26% in other provinces), while the English-Canada consumers are price and promotion oriented and drink wine more frequently at non food occasions (Wine Intelligence, 2010). However, in both provinces, sales and distribution of alcoholic drinks are fully controlled through government-owned liquor boards, the Liquor Control Board of Ontario (LCBO) and Société des Alcools du Québec (SAQ). Although, Ontario and Québec consumers are environmentally friendly conscious, the real impetus towards sustainability comes from the monopolies, LCBO and SAQ (Loveless et al., 2009). So far wineries mainly reacted to pressure from governmental Liquor Boards and it is unclear how far these trade interests indeed reflect an increased consumer concern and sensibility.

Environmentally sustainable wines seem to have a great potential for growth, and identifying consumer wine packaging preferences is critical to this expanding market. Wine producers are facing a market where wine consumers are in need of useful and pertinent wine extrinsic cues. Before creating costly, innovative product-development schemes, wine producers need to know what are the most important wine and packaging cues that wine consumers use to determine how eco friendly a wine is. Therefore, based on the preceding discussion, this study aims to understand the importance of packaging extrinsic cues for environmentally friendly wines in two Canadian provinces by investigating which are the most important extrinsic attributes from the Ontario and Québec consumer.

2. METHODOLOGY

2.1 Design of the study

This research was based on a quantitative technique using a survey questionnaire. A survey was created as an internet based self-administered questionnaire, which was used to assess socio-demographic characteristics (e.g. age, gender, income level, education, employment status, household number and living area), consumer behavior activities (e.g. frequency of use).

Psychographic information such as attitudes and knowledge of respondents toward a variety of topics related with environmentally friendly wines and packaging were assessed by 14 statements developed from the work of Dodd et al. (2005), Barber *et al.* (2009) and Lockshin (personal communication). The most important statements were: “I have a strong interest in wine”; “I would describe myself as very knowledgeable about wine”, “I know more about wine than many other people”; “I have a strong interest in environmentally sustainable wines”; “I understand and distinguish the concepts behind the different environmental sustainable claims” and “When purchasing a bottle of wine, the environmental sustainable claims are important to me”. “When selecting a bottle of wine, the closure is important to me” and “I would describe myself as knowledgeable about green credentials of different wine closures”. This psychographic information was assessed using closed-ended and seven-point Likert type scale questions anchored by 1=strongly disagree, 4=neutral, 7=strongly agree.

The research question aimed to determine “the relative importance of different extrinsic attributes in the consumer evaluation of how environmentally friendly the wine is”. Based on the studies of Rocchi and Stefani (2005) and Mueller and Lockshin (2008) in retail stores, 14 extrinsic wine attributes were selected: brand name, price, country of origin, region of origin, grape variety, alcohol level, type of closure, capsule material, label information, label material, label pictures, eco-label logos, bottle weight, and bottle shape. Respondents were asked to state for each wine attribute its level of importance in their evaluation on how environmentally friendly the wine is in a specific scenario, e.g. in a retail store during a purchase of an environmentally sustainable labeled wine to drink by themselves or with other people at home. This scenario was chosen as it represents the most frequent buying occasion in Canada, 72% of wine being purchased off-trade and informal drinking occasions accounting for a little over 70% of the wine consumed off-premise for all Canadian regular wine drinkers (Wine Intelligence, 2010; Euromonitor International, 2010). The level of importance of each wine attribute was assessed in a seven-point Likert type scale with 1=unimportant, 4=neutral, 7=very important. The 14 attributes were assigned as 14 statement set and their presentation order were randomized across the respondents.

2.2 Consumer sample and on-line survey

Data collection for this study was conducted in English Canada (Ontario) and French Canada (Québec) since Canadians are amongst the most environmentally-conscious consumers. In order to qualify for the study, respondents were not allowed to work in marketing, market research and in the wine industry, were required to have purchased or drunk wine in the last three months and be above the legal drinking age (L.A.) according to the province legislation (18 and 19 years old in Québec and Ontario, respectively). By extending the period of wine purchase, it was aimed to include more occasional/light wine buyers. 300 respondents were recruited in each province; however, after editing and cleaning the dataset, only 298 and 299 questionnaires in Ontario and Québec were considered valid, respectively.

The questionnaire was conducted (third week of May 2011) on the web using people recruited by a web-panel provider (GMI - Global Market insight Inc., Paris, France). The respondents took, as planned, between 12 and 15 minutes to answer the questionnaire. The survey had a response rate of around 40%, which was within the incidence rate contracted with the on-line panel provider.

2.3 Data analysis

The data were analyzed using statistical procedures such as descriptive statistics, cross tabulations, T-tests, analysis of variance and logistic regressions with XLSAT 2011.2.08 software (Addsinsoft, Paris, France). The descriptive statistics provided an overview of the respondents to the survey. *T*-tests and Analysis of Variance (ANOVA) were used to assess the relative importance and the statistical differences of the extrinsic attributes that consumers consider important on their evaluation of how environmental friendly the wine is.

3. RESULTS

3.1 Attitudes and knowledge toward environmental friendly wines

As presented in table 1, Québec respondents stated a relatively high interest in wine, mean of 5.1 on a 7-point Likert-type scale, which was significantly higher than scores obtained in Ontario, 4.6 ($p = 0.003$). Moreover, Québec respondents seem to be less impulsive in their wine choice than their Ontario counterparts as they scored significantly higher on the statement “I like to take my time when purchasing wine” ($p = 0.017$). Likewise, Québec respondents also scored significantly higher (mean = 5.6) regarding “drinking wine gives pleasure” than the Ontario respondents (mean = 5.3) ($p = 0.016$). The level of wine knowledge displayed by the respondents seems to be similar in both provinces at $p = 0.05$. Regarding wine choice, Québec and Ontario respondents seem to have similar adventurous portraits with their wine choices. These results seem to be consistent with those reported by Wine Intelligence (2010) showing that Québec respondents are more involved and more experimental with wine than English speaking Canadians. Wine seems to be very important to Québec respondent’s lifestyle and they have a strong interest in wine. Deciding what wines to purchase is an important decision for them (Wine Intelligence, 2010). The level of knowledge and wine choice were independent of the geographical location of respondents.

Table 1. Knowledge and attitudes of Québec and Ontario respondents towards environmentally sustainable wines.

	Québec (n=299)	Ontario (n=298)
Wine		
I have a strong interest in wine	5.0 (1.5) ^a	4.6 (1.3) ^b
I like to take my time when purchasing wine	5.1 (1.4) ^a	4.8 (1.4) ^b
Drinking wine gives pleasure	5.6 (1.5) ^a	5.3 (1.3) ^b
I know more about wine than many other people	3.5 (1.6)	3.5 (1.6)
I would describe myself as very knowledgeable about wine	3.5 (1.6)	3.4 (1.6)
I am cautious in trying new/different wines	4.2 (1.6)	4.0 (1.5)
I would rather stick with a wine I usually buy than try something I am not very sure of	3.9 (1.7)	4.0 (1.6)
I always look out for new and interesting wines to buy	4.5 (1.6)	4.3 (1.5)
I enjoy taking chances in buying unfamiliar wines just to get some variety in my purchases	4.4 (1.6)	4.3 (1.5)
Environmentally sustainable wines		
I have a strong interest in environmentally sustainable wines	3.8 (1.5)	3.8 (1.6)
I understand and distinguish the concepts behind the different environmental sustainable claims	3.9 (1.6)	3.7 (1.6)
When purchasing a bottle of wine, environmental sustainable claims are important to me	3.6 (1.5)	3.5 (1.7)

Values represent mean values and respective standard deviations (within parenthesis) obtained from responses based upon a 7 Likert point scale with 7=strongly agree, 4=neutral, 1=strongly disagree.

Values with different subscript letter in each row are significant different at 95% confidence level.

Attitudes and knowledge of respondents towards environmentally sustainable wines, which is the key component investigated in this study was also assessed. As presented in table 1, respondents displayed a relatively neutral interest in environmentally sustainable wines (3.8 on a 7-point Likert-type scale) in both Québec and Ontario. These results showed that respondents' interest in environmentally sustainable wines were significantly lower than those obtained for wines in general ($p = 0.0001$). In addition, respondents' scores decreased to 3.6 and 3.5 for Québec and Ontario, respectively when they were asked if environmentally sustainable claims were important to them when they buying a bottle of wine.

Moreover, data can be represented as a percentage of the respondents that agree or strongly agree, consider neutral, and disagrees (based upon a 7 Likert point scale) for each statement. This data representation showed that 28% and 29% of Ontario and Québec respondents, respectively, agree that when they purchase a bottle of wine, the environment sustainability claims are important.

Wine consumers, even well informed ones, are generally confused by the multitude of environmentally sustainable claims available in the market and their respective concepts (Lockshin, 2007). In this research, the stated knowledge of Québec and Ontario respondents about the different sustainability claims were on average 3.9 and 3.6 (4 = neutral) for Québec and Ontario, respectively; however, these differences were not statistically significant ($p = 0.101$). Nevertheless, 44% and 51% of Ontario and Québec respondents agreed that they understand different concepts behind environmentally sustainable claims.

3.2 Importance of different extrinsic wine attributes on consumer evaluation of environmentally sustainable wines

According to table 2, price was clearly the most important attribute for Canadian respondents' (mean of 5.5 and 5.1 in Québec and Ontario, respectively) evaluation of how environmentally friendly the wine is. Other verbal extrinsic attributes such as label information, alcohol level, country of origin, grape variety, region of origin and brand name were also considered important by the respondents displaying scores between 4.2 to 4.7 on a 7-point Likert-type scale.

The statistical analysis indicates that these 6 attributes had a statistically similar importance for respondents, although Québec respondents considered that label information was significantly more important than the other five attributes. In contrast, visual attributes such as bottle shape, label material, label pictures, capsule material and even haptic attributes such as bottle weight were considered least important displaying scores on average as equal or below 3.5 on a 7-point Likert-type scale. Other visual attributes such as closure (mean = 3.8) and eco-labeled logo (mean = 3.8) were significantly more important than the previous attributes, but at a relatively neutral level on a 7-point Likert scale.

Table 2. Importance of specific wine packaging attributes used by Ontario and Québec respondents in their evaluation of how environmentally sustainable the wine is.

Attribute	Québec					Ontario				
	(n=299)	groups				(n=298)	groups			
Price	5.5 (1.5)	■	■	■	■	5.2 (1.8)	■	■	■	■
Label information	4.7 (1.7)	■	■	■	■	4.4 (1.6)	■	■	■	■
Alcohol level	4.4 (1.7)	■	■	■	■	4.3 (1.7)	■	■	■	■
Country of origin	4.2 (1.8)	■	■	■	■	4.5 (1.7)	■	■	■	■
Grape variety	4.3 (1.8)	■	■	■	■	4.4 (1.8)	■	■	■	■
Region of origin	4.3 (1.8)	■	■	■	■	4.3 (1.7)	■	■	■	■
Brand name	4.2 (2.0)	■	■	■	■	4.3 (1.8)	■	■	■	■
Type of closure	3.8 (1.8)	■	■	■	■	3.8 (1.7)	■	■	■	■
Eco-label logo	3.8 (1.8)	■	■	■	■	3.7 (1.8)	■	■	■	■
Capsule material	3.5 (1.9)	■	■	■	■	3.5 (1.6)	■	■	■	■
Label pictures	3.5 (1.8)	■	■	■	■	3.3 (1.6)	■	■	■	■
Bottle weight	3.4 (2.0)	■	■	■	■	3.3 (1.7)	■	■	■	■
Label material	3.2 (1.8)	■	■	■	■	3.4 (1.7)	■	■	■	■
Bottle shape	3.3 (1.8)	■	■	■	■	3.1 (1.7)	■	■	■	■

Values represent mean values and respective standard deviations (within parenthesis) obtained from responses based upon 7 Likert point scale with 7 = very important, 4 = neutral and 1 = unimportant.

Values with different subscript letter in each row are significantly different at 95% confidence level.

The same color within the each column indicates homogenous statistical groups at 95% confidence level.

The relative importance of each extrinsic attribute, that respondents stated to use on their evaluation of how environmentally friendly the wine is, is not differentiated by respondents geographical origin. Québec and Ontario respondents expressed similar views about the importance of each extrinsic attribute used to evaluate how environmentally friendly is the wine. These results seems to be consistent with the studies of Goodman et al. (2007) who suggested that consumer's segmentation should rather be done within/across countries than by country. Wine Intelligence (2010) showed that regular drinker's consumer's segments were formed across the Canadian provinces.

4. DISCUSSION AND MANAGERIAL IMPLICATIONS

The results of this study provide theoretical and practical contributions to the understanding of the interest of Ontario and Québec consumers in environmental friendly/eco-labeled wines and determines what are the packaging attributes that they use when they purchase such a bottle of wine.

This study suggests that Canadian respondents interpreted the research question more as the relative importance of the different extrinsic attributes when they purchase environment friendly wine in retail. Visual attributes such as bottle shape, label material, label pictures, capsule material and bottle weight were found to be least important for the sample of Ontario and Québec respondents. Surprisingly, respondents didn't consider bottle weight an important attribute in their assessment and choice of environment friendly wines. However, lightweight glass bottles have been the focus of attention for retailers. For example, the Ontario Liquor Board decided that from 1 January 2013, wines with a retail price of CAN\$15 or below should be packed into 750 ml bottles with a weight less than 420 g (LCBO, 2010). Results suggest that these decisions from the Liquor Boards aimed to foster its environmental friendly image rather than reflect increased consumer concerns for environmental friendly packaging.

Although both closure and eco-logo were considered significantly more important than other visual attributes mentioned above, yet, they were considered relatively neutral (4 points in a Likert scale). 30% of Ontario and Québec respondents expressed to give some importance to sustainable claims when they purchase a bottle of wine. In addition, 42% and 49% of Québec and Ontario respondents considered closure important when they purchase a bottle of wine.

The evaluation or choice of environment friendly wines seems to be primarily driven by price followed by other script cues such as label information, alcohol level, country of origin, grape variety, region of origin and brand name. These results agree with other studies (Goodman et al., 2007; Mueller and Lockshin, 2008; Mueller and Szolnoki, 2010) who showed that verbal attributes such as brand, price, and region to be significantly more important than visual attributes (bottle and label) on consumers' purchase decision of a bottle of wine. However, the study of Mueller and Lockshin (2008) suggested that the importance of visual wine packaging were more reliably captured using visual methods than with direct verbal methods. These authors also showed that there are different segments of consumers who use different decision rules in choosing wine. There were also segments of consumers that use more visual cues such as label style than printed (brand, price) cues when making their wine choice decision.

The focus of this research was to test the relative importance of different extrinsic attributes the Ontario and Québec wine consumers use in assessing how eco-friendly a wine is. The results have shown that at an aggregated level of Québec and Ontario respondents expressed similar views about the importance of each extrinsic attribute. These results seem to be consistent with the studies of Goodman et al. (2007) who suggested that consumer's segmentation should rather be done within/across countries than by country. Wine Intelligence (2010) suggested that regular drinker's consumer's segments were formed across the Canadian provinces.

5. CONCLUSIONS AND MANAGERIAL IMPLICATIONS

Canadians are amongst the most environmentally conscious people in the world; however, those who are wine drinkers have a low to neutral interest in environmentally friendly/eco-labeled wines. Around 30% of Québec and Ontario respondents agreed that environmental sustainability is an important claim when they purchase a bottle of wine.

The evaluation and choice of environmental friendly wines seems to be similar to conventional wines, being primarily driven by price followed by other verbal cues such as label information, alcohol level, country of origin, grape variety, region of origin and brand name. Although both closure and eco-logo were considered more important than other attributes such as bottle shape, label material, label pictures, capsule material and bottle weight on the respondents assessment of how environmentally friendly a wine is, all these visual and haptic attributes can be considered supporting, rather than dominant, product cues even for environment friendly wines.

The findings obtained in this research have significant managerial relevance. The key implications of this perceptual analysis relate to the positioning of eco-friendly wines and the way these wines can communicate their distinctiveness. At first glance the wine industry would not significantly gain to promote its wines by adding eco-claims to the bottles as Ontario and Québec respondents displayed a relatively low interest in environment friendly wines and marginally valued it. However, the real sustainability driver comes from the monopolies, LCBO and SAQ, who have their own sustainability and social responsibility agenda (Loveless *et al.*, 2009). Given that the only way to sell wine in Québec and Ontario is through the State Liquor Control Boards, following their example and complying with their requirements in terms of wine packaging such as lightweight bottles or wine properties (lower alcohol level) could increase the probabilities to be listed in such important added-value markets. Moreover, it is expected that the increasing supply and store presence of sustainable products will increase consumer awareness and will create in the future a growing consumer demand for eco-friendly products and wine (Remaud *et al.*, 2010).

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A Sustainable Response to the Requirements of the Aware Consumer: The Case of the New Drought-Resistant Rootstocks

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◦*Purpose:* Faced with the impact of climate change, consumers are showing increasing interest in sustainable wine production.

This paper proposes an evaluation of whether the innovative solution represented by new generation rootstocks (i.e. M4), compared to those traditional (i.e. 1103 P), within the ambits of

Italian viticulture, constitutes an efficient response to tackle climate change.

◦*Design/methodology/approach*: The project analyzed the expediency of the investment through a cost-benefit analysis, considering resilience as theoretical approach (cross-cutting theme). The analysis considers two important wine-growing areas in Italy, the North-East and Sicily. The spatialization of the drought-prone areas was done by means of an *ad hoc* multiple linear regression model. On the basis of these results, and given the performances of the rootstocks considered, three irrigation levels were considered in relation to three temporal scenarios of pedoclimatic evolution (status quo, 2030 and 2050).

◦*Findings/practical implications*: The economic results demonstrate the higher earnings of the M4 rootstock in comparison with that traditional for both areas and for all the irrigation regimes considered. The financial analysis registers a clear advantage from substituting the traditional rootstock with that innovative. In general, for the wine-grower the advantage is greater in the non-irrigated vineyards and with a limited irrigation regime and decreases with the increase of the discount rate. In the two areas analyzed, the land that would be planted with innovative rootstocks is about 130,000 hectares in the status quo scenario and could prospectively (i.e. 2030 and 2050 scenarios) be extended to those not currently exposed to the risk of drought, reinforcing the resilience of the vineyards that presently need irrigation. The adoption of the rootstocks can lastly determine important social benefits in relation to a reduction in water use.

Key words: Sustainability Viticulture, Vitivinicultural resilience, Innovative rootstocks, Cost-benefit Analysis.

PREFACE

The wine market is characterized by an increasing competition among suppliers (Pomarici et al., 2012; Mariani et al., 2014). Competitors have to offer wines with very high value for money, being consistent with the evolving values of consumers and adapting to the changes in production environment. In this perspective two major issues can be identified: increasing interest of consumers for sustainability and the growing impact of climate change on agriculture, which is determining an enlargement of areas exposed to drought risk, particularly in Mediterranean areas under vine. Therefore adaptation of viticulture to climate change and the discovering of paths to guarantee continuity of production with environmentally-friendly solutions are of particular importance. Indeed, as emerges from the most recent literature and the latest European policy guidelines, these topics will assume increasing importance in the coming years. This subject has been tackled by the Ager Serres project. The project is composed by working groups from the Italian universities of Milan, Padova, UCSC, Turin and the Fondazione Enrico Mattei, CRA-VIT in Conegliano, CRA-ABP in Florence. The aim of the project is within the framework of the development of models of sustainability for Italian viticulture, with special reference to aspects related to abiotic stresses. Among these, those relative to the impact of climate change and the effects this might have on the availability of water are of particular significance. In this regard, viticulture in Italy is currently limited by the availability of root stocks with characteristics suitable for abiotic stresses. This is the context in which the Ager Serres project was set up. The project has analyzed four innovative root stocks (series M) in different areas, which have been evaluated in different climatic and economic scenarios. The aim of this paper is to briefly illustrate the organisation of the Ager-Serres project and to present the results of the first economic evaluation of the convenience of the use of new rootstock resistant to drought in two very different geographical contexts in Italy: North-East and Sicily, in the south.

The paper is organized as follows. The first part introduces the subjects and objectives. The second part presents the scenarios of evolution of the Italian wine-growing areas and the methodology applied to evaluate cost and benefits of the use of new rootstock (materials and methods). The third part reports the results and the last section contains main conclusions.

1.INTRODUCTION

In the last decades the emergence of increasingly pressing challenges that the agricultural sector has had to face, such as climate change, food security, efficient use of resources, production methods and ecological planning, protection of rural areas and biodiversity (OECD, 2011) has led to increased attention to innovation in agriculture. Nowadays, innovation is particularly needed to adapt to input and output market developments, and changes in resource quality and availability (OECD, 2012). Schumpeter (1934) defined innovation as primarily a combination of existing knowledge that is economically more feasible or more efficient than the previous way of doing things. An innovation according to Rogers (1983) is “an idea, practice or object that is perceived as new by an individual or other unit of adoption”. While diffusion is seen as “the process by which an innovation is communicated through certain channels over time among members of a social system”. For many years innovations were seen as products developed by scientists, disseminated by advisory bodies and then put into practice by farm businesses (Sunding and Zilberman, 2001). More recently, this view has been challenged by findings that depict agricultural innovations as social processes dependent on farm-level knowledge, rather than the simple adoption of a new product or technique (Abadi Ghadim and Pannell, 1999).

The Ager Serres project is on the subject of the sustainability of the wine-growing sector. It is inserted in the framework of the innovative guidelines promoted by the European Commission that, with Horizon 2020, are aimed at pursuing development based on research, innovation and sustainability (European Commission, 2011).

According to the research group of the Intergovernmental Panel on Climate Change, the climatic variations that have affected the Planet will continue in the next decades (IPCC, 2007; Matthews, 2008). Given the vulnerability of the wine-growing ecosystem (Jones, 2007; Ashenfelter, Storchman, 2010), the importance emerges of identifying sustainable solutions that allow the probable effects of climate change to be tackled and to safeguard the production capacity (Ostrom, Cox, 2010; Niles, Lubell, 2012) of viticultural systems.

Within this long-term prospective, the property most closely linked to the idea of sustainability is resilience (Perrings, 2001; Holling, 1973; Folke et al., 2002; Milestad and Hadatch, 2003; Spielman et al., 2011). Among the scientific concepts currently used in sustainability science, resilience¹ is probably one of the most relevant (e.g. Brand, 2009). Indeed a growing number of case studies have revealed the close connection between resilience, diversity and sustainability of social-ecological systems (e.g. Folke *et al.*, 2002). Currently, two main definitions of resilience can be retrieved: the first, generally referred to as engineering resilience, gives to the term the meaning of the time required for a system to return to an equilibrium point following a disturbance event (see among others Holling, 1996), in the second approach, called ecological resilience, it is seen as the capacity of an ecosystem to resist disturbance and still maintain a specified state (e.g. Gunderson and Holling, 2002). In other words, it is how to persist through continuous development in the face of change and how to innovate and transform into new more desirable configurations (Folke, 2006).

In viticulture, in the adoption of innovations aimed at sustainability (Rogers, 2003), this capacity is utilizable by the producer if the economic and environmental benefits outweigh the inherent costs. These approaches are spreading in different countries, both in the New World (United States, Australia, New Zealand, South Africa, Chile, Argentina, etc.) and in Europe (France, Spain, Italy, etc.). In 2002, California launched the Sustainable Winegrowing Program (SWG) aimed at promoting the adoption and continual improvement of sustainable practices throughout the wine-production chain (California Winegrowing Alliance, 2014; Haden et al. 2012). In crop management, these consist of the rationalization of the use of water, energy use, calculation of the emissions and sequestration of greenhouse gases, etc. There are economic benefits for the producers committed to sustainable practices, such as a reduction in production costs, improvement of the product quality, greater attention to environmental regulations, etc. (Hillis et al., 2010; Lubell et al., 2011, Hoffman et al., 2013). On the Californian model, McLaren Vale Sustainable Winegrowing Australia (MVSWSGA) was presented in 2009, which considers an improvement of wine-growing sustainability in relation to the environmental impacts and market forces (McLaren Vale Grape, Wine & Tourism Association, 2014). Since 1997, New Zealand wine-growers have developed a programme named Sustainable Winegrowing New Zealand that involves the implementation of a model of environmental best practices from the vineyard to the winery. The approach involves an improvement of the guarantee of product quality in relation to consumer requirements, with the aim of obtaining and marketing environmentally-friendly wines (Sustainable Winegrowing New Zealand, 2014; Gabzdylova et al., 2009). In Chile, the certification of sustainability, implemented in 2011 by the *Consortio I+D Vinos de Chile*, differs in the systemic approach to sustainability (Hansen 1996; Daly, 1996), by a greater accent on the criteria of social equity (orange chapter). Since the early 2000s, the *Comité interprofessionnel du vin de Champagne* has encouraged, at the *vignerons* and *maisons*, the development of a sustainable viticulture model based on four key areas of intervention. Among these, particular importance is placed on the measures to tackle climate change and the reduction of environmental risks (Moncomble, 2012; Comité interprofessionnel du vin de Champagne, 2014). In Spain, the Wineries for Climate Protection initiative follows the same line of thought, proposing itself as international reference for the wine industry, in the search for the best practical solutions to meet the challenges of climate change in viticulture (Spanish Wine Federation, 2014).

The arrival of *Phylloxera vastatrix* in Europe in the second half of the 19th century (Planchon et al., 1868) determined profound changes in viticultural research and techniques, which have led to the constitution of biform grapevines in which the root apparatus (root stock) is of American species and the epigeal part (grafted variety) is *V. vinifera*.

In Italy, the constitution of the *ConSORZI Antifillosserici* (1901) and the scientific input of numerous researchers and technicians, including Guttuso - Fasulo (1906), Paulsen and Gibertoni (1908), Coceani (1908), Dalmasso and Sutter (1915), Dalmasso, Cosmo and Dell'Olio, (1929-1931), and private companies, have allowed the diffusion of the grafting technique for the reconstitution of vineyards with American roots. Some of the root stocks selected then were resistant to drought (e.g. 140 Ruggeri, 1103 Paulsen, etc.). However, over time, they have suffered technical erosion and have become increasingly less adequate in terms of climate change (sudden stresses, extreme events, etc.). There is thus a need for new root stocks that can maintain the sustainability of wine-production in conjunction with the new scenarios. Under the technical-productive profile, they must satisfy the requisites of yield, quality and sensorial profile; while from the economic point of view, they are evaluated in terms of earnings, cost-benefit flows and resilience.

Given the nature of the project, it is considered useful not just to be limited to an economic analysis, but also to produce results in terms of resilience, as this can more appropriately capture the aspects of sustainability. In this context, the aim of the research is the evaluation of the introduction of an innovation in Italian viticulture, by means of a cost-benefit analysis, and utilizing resilience as the key to the results (cross-cutting theme). The project involved two areas of Italy particularly important and renowned for wine production: the North-East characterized by sparkling wines and still reds; the South and the Islands, typified by white wines and still reds.

2. MATERIALS AND METHODS

2.1. Data sources

The study compared one of the most diffuse grapevine rootstocks (traditional) with rootstock of the series M (innovative). The traditional rootstock (control) is 1103 Paulsen (*V. berlandieri* x *V. rupestris*). The innovative rootstock (M4), produced in the 1980s by the research group of the University of Milan (Scienza et al., 2001), is an interspecific cross between 106-8 [*V. riparia* X (*V. cordifolia* x *V. rupestris*)] and Resseguier n°1 (*V. berlandieri*) and is drought-resistant.

The behaviour of the root stocks was observed on Cabernet Sauvignon, an international variety, among the most 'plastic' and for this reason diffuse in many areas wine-growing areas in Italy and abroad. The experimental vineyards, cultivated with the traditional and innovative root stocks, were organized in a scheme of randomized blocks, which had the same training form (spurred cordon) and planting layout (0.8x2.4 m) and were cultivated with the same cropping technique as the traditional rootstocks. The data gathered on the principal quantitative (yield per plant in Kg) and qualitative parameters (°Brix, total acidity, anthocyanins, pH) regarded the years 2006-2012.

From the point of view of the analysis of the principal technical-productive parameters, the comparison between innovative and traditional root stocks denoted a series of benefits (Scienza et al., 2001) such as: a better grape quality, accompanied by lower vegetative vigour; increase of production in the presence of abiotic stresses; reduction (or elimination) of irrigation; reduction of interventions on the foliage (e.g. topping, etc.); reduction of some pesticide treatments (rot from *B. cinerea* and oidio); possibility of expansion of the vines in high-value zones (DOC/G) currently not planted due to the high production risk or high cultivation costs.

The economic/financial data was supplied by the RICA database of INEA, and validated, both by means of an investigation conducted on a sample of representative farms in the studied areas, and considering the judgements provided by experts in the wine-growing sector (Florio,

2002).

Three maps were produced of the drought restrictions for vine cultivation, one referred to the present time and the other two for the years 2030 and 2050.

Elaboration of the maps required the use of the following data:

- Land use (Corine land cover with a grid spacing of 100 m (De Jacher, 2012);
- Digital elevation model (DEM) with 100 m spacing;
- Soil Aridity Index with a grid spacing of 1,000 m (SAI, Costantini and L'Abate, 2009), that expresses the long-term mean annual number of days when the topsoil (first 50 cm of soil) is dry;
- Climatic geodatabase available on line from CIAT (<http://www.ccafs-climate.org/data/>) for 30-year mean periods, the 2030s (2020-2049) and 2050s (2040-2069). Specifically, the 2030 and 2050 mean annual temperature and rain were downloaded with the following condition: IPCC Special Report on Emissions Scenario (SRES) A1B; DELTA method; cccma_cgcm3_1_t47 model; resolution of 30 seconds (Ramirez et al., 2010);
- Pedological information, extracted from the Soil Information System of Italy (SISI, www.soilmaps.it, Costantini et al., 2013). SISI is a Spatial Data Infrastructure that stores geographical and semantic information about soils and soil forming factors, including climate, geology, relief and land use, at different scales. The database stores the soil data of 22,015 profiles. They are classified and georeferenced soils and grouped in 1,413 soil type units (STU). The method for the elaboration of the maps consisted of two steps.

First, the vineyards and the lands potentially available for vineyards were selected. They were agricultural areas lying below 800 m a.s.l. The drought level was then estimated through the calculation of the SAI. The SAI values were estimated following a multiple regression (Costantini and L'Abate, 2009) with long-term mean annual air temperature (T_a), total annual rainfall (R), and soil available water capacity (AWC).

$$SAI = 75.363 + 6.874 * T_a - 0.064 * R - 0.299 * AWC \quad (R^2 = 0.55; P < 0.001; n = 260) \quad (1)$$

The estimations of SAI for the 2030s and 2050s were obtained applying (1) to the predicted T_a and R . A linear regression was used to spatialize the estimated SAI. The grid of the long-term SAI was the predictor variable according to the following algorithms:

$$SAI_{2050} = 0,752 * SAI + 45,837 \quad (R^2 = 0,813) \quad (2)$$

$$SAI_{2030} = 0,772 * SAI + 33,471 \quad (R^2 = 0,8023) \quad (3)$$

The selection of the viticultural areas affected by drought was made taking the threshold of 65 days when the topsoil is dry (Costantini, 2007).

According to the three scenarios, 65% of Italian viticultural areas (vineyards and heterogeneous agricultural areas with vineyards) are at present affected by drought (with remarkable regional differences), the percentage rises to 86% in the year 2030, and reaches 99.6% in the 2050s, when only some very limited areas of northern Italy will remain excluded.

2.2. Presentation of the evolution scenarios

Assuming these conditions of pedoclimatic evolution, the hypotheses explored in the cost-benefit analysis regarded:

- a) maintenance of the 'traditional' root stocks (*ex ante* scenario), which do not adapt to the new pedoclimatic conditions. The viticultural ecosystem does not react to climate change or responds with strong limitations of the yield capacity. For this reason, the wine-growers are constrained to make decisions that involve rationalization of the use of water (irrigation when needed).

b) introduction of the ‘innovative root stocks’ (*ex post* scenario), which adapt to the new pedoclimatic conditions or mitigate the negative effects. The viticultural ecosystem responds to climate change becoming more flexible (or resilient), with an economically positive effect in comparison to the ‘traditional root stocks’.

In the *ex ante* scenario has been developed three different hypothesis regarding the use of water (irrigation regime) to compensate the shortage of natural water supply:

- a. non-irrigated;
- b. averagely irrigated (1 irrigation when needed);
- c. fully irrigated (2 irrigations).

Such different irrigation regimes determine different revenues and costs. Stabilizing the yield, the revenues increase with irrigation as the compensation of water stress ensure a better grape quality and grape value increase overcompensate cost increase.

The analysis considered three time scenarios of pedoclimatic evolution - status quo, 2030 and 2050 – and two areas in Italy. The areas considered for the cost benefit analysis of the substitution of traditional rootstock with rootstock resistant to drought are the North-East regions and Sicily in the south. This choice was made to consider two very different conditions, which reflect the wide pedoclimatic differences characterizing the Italian viticulture.

3.3. Cost-benefit analysis

The economic effects of the rootstocks studied by the Ager-Serres project was analyzed by means of a cost–benefit analysis applied to the substitution of the vineyards planted using the traditional rootstock 1103P with vineyards planted on the M4 rootstock (Pennisi, 1985; Florio, 2002; Pennisi and Scandizzo, 2003). The balances were identified according to the standard accounting scheme (RICA-FADN), attributing the earnings and outgoings.

The details of the farm earnings and costs were grouped in the categories of the simplified revenue account (RICA, 2013) relative to the productive cycle of the grape.

For the analysis of the *ex ante* scenario, a typical vineyard of Cabernet Sauvignon was identified, in which the normal cropping operations typical of the production of a premium wine are adopted.

The grape price was determined applying a positive differential compared to the average market price. Such differential reflects the specific value of grape for premium wine production. The average market price was assumed corresponding to 0.50 in North-East and 0.40 in Sicily. The positive differential applied varied according to the irrigation regime: 10% non-irrigated; 20% averagely irrigated; 30% fully irrigated.

In the *ex post* scenario the multiyear data obtained from the experimental fields were utilized. In this way it was possible to obtain the average benefits and average costs of the cultivation and full production phases of the considered scenarios.

Analysis of the earnings was done through an appropriate algorithm normally used by the wine-producers’ cooperatives for the determination of grape price, which takes into account the principal parameters of evaluation of its quality (°Brix, pH, anthocyanins):

$$P = P^* + \left\{ \frac{(P^c - P^*) 0,6 (Brix^c - Brix^*)}{(Brix^c - Brix^*)} + \frac{(P^c - P^*) 0,2 (Ant^c - Ant^*)}{(Ant^c - Ant^*)} + \frac{(P^c - P^*) 0,2 (pH^c - pH^*)}{(pH^c - pH^*)} \right\}$$

Considered the average composition of Cabernet Sauvignon, the following analytical parameters were applied: average values of sugar content of the grape, $Brix^* = 19.4$ °Brix, $pH^* = 3.5$, anthocyanins, $Ant^* = 500$ mg/L; the weights attributed to the qualitative parameters were 60% for the sugar content of the grape $Brix^c$, 20% for the acidity pH^c and 20% for the colour Ant^c .

Box 1 - Average values of analytical parameters used in the algorithm.

	North East	Sicily	Standards
°Brix	24.1	24.1	19.4
pH	3.3	3.6	3.5
Anthocyanins	757	716	500

The average market prices P* (euro per kg) were the same as those considered for the *ex ante* scenario: 0.50 in the North-East and 0.40 in Sicily, The P^c parameter was defined increasing P* by 30%; this increase reflects the expected quality of a grape cropped targeting a premium level. The yield per hectare, in the considered scenarios, is the average obtained from the DOC specifications for Cabernet Sauvignon, equal to 13 tons per hectare in the North-East and Sicily. These were compared with the quantitative and qualitative benefits obtained from innovative rootstock of the series M in the experimental fields. The costs were divided into operating costs (fertilizers, pesticides, hiring, insurance), general costs, manual labour costs and other operating costs (RICA, 2013; Ballester, 1975; Mishan, 1982). Regarding the operating costs, fertilizer costs amount to 280 euro ha⁻¹ and those for crop defence are 750 euro ha⁻¹.

The mechanical work is carried out in a hiring regime (Garcia et al., 2004), which covers the case of the farm that makes systematic use of contractors as the productive structure is fragmented, and those autonomous that operate in conditions of maximum efficiency; such costs sum up to 1760 euro ha⁻¹ in the *ex ante* scenario and to 1640 in the *ex post* scenario (due to the reduced needs for green pruning). As regards the use of irrigation, the farms averagely irrigated do one irrigation a year that corresponds to a cost of 200 euro ha⁻¹, while on those fully irrigated, applying two irrigations on average, the cost rises to 400 euro ha⁻¹.

Insurance costs are estimated as 5% of the value of the earnings. The general expenditure for energy, contributions to drainage and commercialization of the products, amounts to 300 euro ha⁻¹ in North East and 290 euro ha⁻¹ in Sicily. The manual labour considered is that supplied by a salaried worker at an hourly cost equal to 15 euro h⁻¹ in North East and 13,3 in Sicily. The winter pruning takes around 100 hours ha⁻¹, to which is added 20 hours ha⁻¹ of topping and surveillance. The complex of the planting cost generate a depreciation cost by year equal to 1,000 euro ha⁻¹ in North East and 800 euro ha⁻¹ in Sicily.

Before applying the cost benefit analysis of substitution of traditional vineyards with the innovative ones, the economic performance of vineyard planted on the 1103P rootstock (with the three different irrigation regimes) and on the M4 rootstock was individually evaluated computing the Net Revenue (NR) of the crop in the full production phase and the Net Present Value (NPV) of the entire life cycle of the vineyard (30 years). The Net Revenue of the vineyard has been computed as follow:

NR = Value of Production – total cost by year – depreciation cost

The Net Present Value has been computed as follow:

$$NPV (BN) = \sum_{t=0}^n a_t bn_t = \frac{bn_0}{(1+i)^0} + \frac{bn_1}{(1+i)^1} + \dots + \frac{bn_n}{(1+i)^n}$$

Where the *bn* is the difference between revenues and cost during each year of the lifecycle of the vineyard, *i*, the discount rate and *a_t* the discount factor.

The cost benefit analysis of substitution of traditional rootstocks with the innovative ones has been carried out computing the Net Present Value of the flow of net earnings coming from such substitution. The net earnings obtained from adoption of the innovative rootstocks derive from the increased earnings obtained and deducting the added costs, which cover the earnings lost for the substitution of the traditional root stocks with the innovative root stocks. The added costs, of 9,000 euro ha⁻¹, are ascribed: on the one hand, to the labour used for the uprooting

operations of the traditional root stocks in the vineyard and the planting of the innovative root stocks, and the cost of the new cuttings; on the other to the loss of income, connected to the entry into production of the new root stocks, which takes into account both the earnings differential obtained between the innovative and traditional root stock, and the phases of increasing production (0% in the first year, 30% in the second, 70% in the third) and full production (from the 4th year onwards).

The economic evaluation of the cost effectiveness of the investment in a vineyard planted on M4 rootstock, with duration n taken as 30 years, was therefore determined from the Net Present Value of the cost-benefit differential computed for each year (y) of the life cycle of the traditional vineyard as follow:

$$NPV(Sy) = \sum_{t=0}^n a_t S_t = \frac{S_0}{(1+i)^0} + \frac{S_1}{(1+i)^1} + \dots + \frac{S_n}{(1+i)^n}$$

Where S_t is the net earnings obtained from adoption of the innovative rootstocks in the t^{th} year of the life cycle of the new vineyard, i , the discount rate and a_t the discount factor.

For a given comparison, if the result of the $NPV(Sy) > 0$, then the substitution of the traditional vineyard is economically sustainable, while if the result of the calculation is $NPV < 0$, the substitution is not practicable. The rate of interest of acceptance (opportunity cost) used was 5%, in line with the current market of monetary values. Two hypotheses of between 2% and 8% were then considered.

4. RESULTS

Table 1 clearly shows differences in revenues between the two areas. Indeed the North-East has considerably higher revenues compared to Sicily in all the scenarios examined. We can also notice an unambiguous hierarchy of revenues of 1103P in different irrigation regimes (non-irrigated vineyards have lower quality grapes due to water stress that is not compensated by cost reduction). In Sicily, the low level of prices in the case of no irrigation determines a negative net revenue. More importantly, M4 rootstock determines higher vineyard revenues compared to traditional rootstocks in all irrigation regimes in both areas, even if the revenue level is very different. A potential superiority of M4 over 1103P can be assumed, which should be confirmed by a thorough financial analysis. In particular, our data highlight that M4 results in higher revenues compared to the best situation of 1103P of roughly 40% in the North-East and more than 80% in Sicily.

Table 1 - Vineyard net revenue by rootstock and irrigation regime (€/ha): full production phase net of mortgage

	North East	Sicily
1103P no irrigation	902 -	46
1103P medium irrigation	1320	368
1103P full irrigation	1737	542
M4 (no irrigation)	2440	995
<i>Variation - M4 vs:</i>		
1103P no irrigation	1.538	1.041
1103P medium irrigation	1.120	627
1103P full irrigation	703	453

Table 2 reveals that financial performances of North-East vineyards are clearly higher than Sicilian vineyards, in line with the net revenue differences. In particular, in the North-East in the case of discount rates above 2% it is advantageous to invest in both rootstocks with any irrigation regime, highlighting that investments in M4 have a particularly high profitability, with an internal rate of return of 7.5% compared to 5.15% in the fully-irrigated 1103P. The financial analysis of Sicily data also shows that the lower net revenues correspond to flows of

benefits and costs that for 1103P (not irrigated and partially irrigated) do not always determine vineyard profitability. Fully irrigated vineyards with the traditional rootstock present a positive net revenue only with very low discount rates, while the innovative rootstock allows a full profitability also with discount rates up to 3%, revealing a financial performance clearly superior to the traditional rootstock even if inferior to North-East vineyards. The financial analysis also reveals a clear advantage from substituting, in drought-risk areas, traditional rootstocks with the innovative ones at the time of vineyard renewal (i.e. after 30 years). In addition, the superiority in terms of profitability of vineyards planted on M4 compared to irrigated vineyards on 1103P could increase in the case of a rise in irrigation costs. Finally, we should stress that in Sicily the M4 rootstock represents the only chance to have a full cost-effectiveness in planting a vineyard at a reasonable opportunity cost level.

Table 2 - Financial analysis of vineyards performance by rootstock and irrigation regime

	Internal rate of return (%)	Net present value (NPV) by discount rate (€)		
		2%	5%	8%
<i>North East</i>				
1103P no irrigation	2,1	508	-10365	-16212
1103P medium irrigation	3,7	8762	4876	-12374
1103P full irrigation	5,15	17016	593	-8537
M4	7,5	31381	10674	-999
<i>Sicily</i>				
1103P no irrigation	<0	- 17.138	- 20.688	- 22.307
1103P medium irrigation	<0	- 11.449	- 16.951	- 19.724
1103P full irrigation	0,55	- 5.759	- 13.214	- 17.140
M4	3,13	4.723	- 5.769	- 11.500

As depicted in Table 3 differences in terms of actual net revenues with traditional or innovative rootstocks would make an early removal of 1103P worthwhile in specific circumstances. Indeed, also if the NPV of vineyards on M4 is always higher compared to the NPV of vineyards on 1103P, when the vineyard is already planted on 1103P, it may be advisable to collect the flow of positive net benefits of the planted vineyard before planting a new vineyard on M4. Actually, the benefit of an early substitution depends largely on the cost opportunity of the growers and on the vineyard irrigation regime. In general, the cost effectiveness of performing an early substitution is higher with no or reduced irrigation and decreases with the rise of the opportunity cost. It can also be observed that with a 2% cost opportunity it is worth replanting vineyards with innovative rootstock with no or partial irrigation, while with fully-irrigated vineyards with traditional rootstock it is preferable to substitute at the 14th year in the North-East and 25th in Sicily. On the other hand with 8% discount rate substitution is never worthwhile except in the case of vineyards with no-irrigation in North-East, where substitution is cost effective at the 22nd year.

Table 3 - Substitution timing of traditional vineyards by irrigation regime and discount rate: M4 instead of 1103P rootstock

	Discount rate		
	2%	5%	8%
<i>North East</i>			
1103P no irrigation	always	always	after 22nd year
1103P medium irrigation	always	after 19th year	never
1103P full irrigation	after 14th year	never	never
<i>Sicily</i>			
1103P no irrigation	always	after 15th year	never
1103P medium irrigation	always	after 26th year	never
1103P full irrigation	after 25th year	never	never

Analysis of the maps of the drought restrictions for vine cultivation produced by the CRA-ABP (Table 4) emphasizes an extremely significant potential demand for innovative rootstocks. Due to the fact that 14% of North-East vineyards and more than 94% of Sicilian vineyards are currently exposed to drought risk. In addition, these areas are expected to increase in the coming years. Just considering the current situation and that the performance of Cabernet Sauvignon on the traditional and innovative rootstock can be assumed as representative of the average behaviour of other grape varieties, we can estimate that the innovative rootstocks in the considered areas should be around 130,000 hectares. Thus if innovative rootstock replanting ~~would~~ takes place only in vineyards at the end of their natural lifespan (30 years), a renewal process would be activated involving around 6,000 hectares per year. However observing data in Table 3 – which reveal that even for an opportunity cost as high as 5% - it is worth substituting the traditional rootstock in both the no-irrigation and partial irrigation regimes, and therefore imagine that the amount of vineyard renewals could be even higher. Ultimately, use of these innovative rootstocks could also be potentially useful in areas not directly exposed to drought risk as M4 may strengthen resilience of vineyards with unexpected water stress, which will most likely become more frequent in these areas.

Table 4 - Vineyard area exposed to drought (ha)

	Area under vine						
	total	drought risk area					
		current		2030		2050	
	area	share on total	area	share on total	area	share on total	
North East	168.868	23641,52	14%	141849,1	84%	165490,6	98%
Sicily	114.298	107.440	94%	112.012	98%	114.298	100%

Source: CRA-ABP

5. CONCLUSIONS AND RESEARCH DEVELOPMENTS

The first exploratory economic analysis of field data produced by the Ager-Serres research project clearly demonstrates the huge interest of the innovative rootstock tested. The innovative rootstock seems to be able to improve the economic performance of vineyards and, in particular, our analysis has revealed that innovative rootstocks allow a full profitability of investments in areas particularly subject to drought risks, such as Sicily. Moreover, substitution of traditional rootstocks with innovative ones, in addition to cost-effectiveness, could be particularly important due to its coherence with general principles of sustainable development (as reducing water use is a core factor of sustainable practices compliance). Furthermore, water-saving policies are gaining increasing attention from public and private standards of environmental performances of wine companies. At the same time, responsible consumers and green associations are demanding higher involvement of companies in reducing the water footprint of final products. Thus the innovative rootstocks appear to be an effective response in providing a high-quality product while ensuring a higher level of profitability, meeting the consumer demand for high-quality products made with environmentally-friendly methods that use fewer scarce resources, such as water. We should also underline that innovative rootstocks can determine important public benefits. Substitution of vineyards on traditional rootstocks could, indeed, reduce irrigation needs deriving from non-substitution in areas exposed to drought risks. This, could likely make public investments for water supply unnecessary in vineyard areas and restrict competition for water use, assisting overall sustainability of the wine sector. Furthermore introducing these innovations is particularly in tune with resilience building strategies, as it enhances the capacity of the vine socio-ecological system to cope with

surprises that are increasingly likely (Folke, 2006). Thus, the need to account for resilience in a changing world is a perspective that should become embedded in all future strategies and policy.

Of course, as frequently happens in the field of innovation diffusion, the adoption of such innovative rootstock could be constrained by several factors. Given the relevant public interest in their adoption, appropriate action should be taken to remove these constraint. Policies at all levels influence the adoption and diffusion of sustainable agricultural systems. In particular, policies to improve the information and knowledge base are likely to lead to particularly important impacts. However improving the information base is not enough; improved access to information, research results, best management practices, other farmers' experiences, and other opportunities for improving management is critical (Lee, 2005). Policies and institutions that encourage the development of competitive and responsive input and output markets in agriculture should be strongly supported as should an increase of public agricultural R&D investments that strengthen private and governmental risk mitigation strategies (Lybbert and Sumner, 2012).

The Ager-Serres project is currently comparing results of North-East and Sicily experiments with data gathered in identical conditions in all Italian regions, encompassing a wide array of pedoclimatic conditions, therefore also considering regions with a very important wine production such as Tuscany, Apulia and Piedmont. A natural extension of the current research would be to replicate the study on a number of other important Italian grape varieties (e.g. Sangiovese or Trebbiano) and in other key producing regions of Italy. Furthermore, future research should try to apply experimental data to specific parameters of vineyards age, in each production area, to assemble a more precise picture of rootstocks substitution profitability and rate, also considering different scenarios in terms of irrigation costs.

Results from such analyses will be extremely useful to support actions required to promote the innovative rootstocks among farmers and to provide the viticulture sector with useful information to plan the production of these rootstocks.

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¹ For a full review of the concept see, among others: Bhamra et al., 2011.

Environmental Impacts of Wine Production: A Pilot Study Exploring Consumer Knowledge and Environmental Concern

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Purpose

The purpose of this study was pilot testing an instrument designed to measure subjective and objective knowledge about environmental practices in the wine industry, such as the use of pesticides in the vineyard and additives during wine making (e.g. sulfur or yeast), as well as waste (e.g. recycling) and water management. Additionally, concerns about the environment were captured through the revised New Environmental Paradigm (NEP) scale.

Design/methodology/approach

Participants with three distinct levels of expertise were recruited at a Midwestern University in the United States. An online survey was administered. Data was analyzed with SPSS version 21. The sample (n=38) consisted of a novice group (n=11), an intermediate group (n=15), and industry experts (n=12).

Findings

Between groups, there was a significant ($p < 0.003$) difference in objective knowledge ($\mu_{\text{novice}} = 4.00$, $\mu_{\text{intermediate}} = 4.33$, $\mu_{\text{expert}} = 5.75$). None of the participants achieved the maximum score (9.00). Subjective scores were significantly ($p = .026$) correlated with objective scores ($\mu_{\text{novice}} = 10.55$, $\mu_{\text{intermediate}} = 15.13$, $\mu_{\text{expert}} = 16.15$). Novice's subjective knowledge was significantly different from intermediate ($p = .005$) and expert participants ($p = .001$). Additionally, the high reliability of the NEP scale was confirmed (Cronbach's $\alpha = .859$). There was no significant difference regarding the participants' environmental concern ($r(36) = .316$, $p = .731$).

Practical implications

Environmentally friendly products are receiving increased consumer interest. Organic, biodynamic, and sustainable are terms used in the wine industry; however, this study suggests a lack of comprehension across all examined knowledge groups. Term clarification (organic, biodynamic, sustainable, etc.) and wine production education is warranted. Industry stakeholders (experts) should especially be knowledgeable in order to foster consumer appreciation for environmentally friendly wines and wine packaging.

Key words: biodynamic, consumer behavior, environmental concern, knowledge, organic

1. INTRODUCTION

There are no simple answers as to what motivates people to consume wine. First and foremost, the consumption of wine is a highly subjective choice, unique to each individual. Wine consumer research has thus far investigated various factors influencing wine consumption behavior such as: involvement (Barber et al., 2007; Aurifeille et al., 2002), generational differences (Hammond et al., 2013a; Hammond et al., 2013b; Atkin & Thach, 2012; Hammond et al., 2009), gender differences (Atkin et al., 2007; Barber et al., 2006), lifestyle as a consumption driver (Brunner & Siegrist, 2011; Bruwer & Li, 2007), packaging effects (Barber et al., 2009; Marin & Durham, 2007), and wine label preferences (Barber & Almanza, 2006). Recently, environmental concerns related to the wine-supply-chain (Christ & Burritt, 2013; Forbes & DeSilva, 2012; Cordano et al., 2010; Pullman et al. 2010; Gabzdylova et al., 2009), green wine consumerism (Mann et al., 2012; Barber, 2010; Zucca et al., 2009), as well as wine knowledge (Johnson & Bastian, 2007; Dodd et al., 2005) have been studied.

Forbes et al. (2011) highlighted wine consumers self-reported lack of knowledge regarding how wine is made. The wine knowledge instruments used in academic research thus far include mostly general wine knowledge items. Johnson and Bastian (2007), for example, tailored their questionnaire to the Australian market asking questions such as *where the wine region, Pemberton, is located?*, *which Australian region produces the most wine?*, as well as general questions, such as *what grape varietal is red Burgundy made from?*. Loureiro (2003) and Imkamp (2000) stated that consumers across nations express an increased interest in ecological and environmentally friendly product information. Goode and Harrop (2011) highlighted that rules and regulations for organic, sustainable, and natural wine making vary greatly. Both, across and within countries, there exist a variety of sustainable or organic certifying organizations. An organic wine certified by BioGro New Zealand may not easily be exported to the United States because United States Department of Agriculture (USDA) rules and regulations differ slightly. Furthermore, the term “natural” has not been defined officially. Biodynamic, on the other hand, has been defined by Demeter International. Certification is available from Demeter and applicable to biodynamic agriculture internationally; however some wine industry representatives and consumers are skeptical regarding biodynamic methods (Goode & Harrop, 2011). Unfamiliarity and a lack of understanding of the differences between organic, biodynamic, sustainable, and natural wines may drive this reluctance. This brings into question what wine consumers know about these widely used wine industry terms. Thus, an instrument was created and pilot tested as part of this study to measure knowledge about the environmental impacts of wine production.

Today, a discussion of wine industry environmental impacts goes beyond wine making and grape growing. Wines are no longer consumed at their place of origin (Goode & Harrop, 2011). Packaging and distribution are highly relevant environmental aspects of wine production. Related to global warming and climate changes, carbon footprint is a key term across industries. Various wine processes and products add to the overall emission of greenhouse gases. Distribution and packaging contribute significantly to the carbon footprint of wine. Goode and Harrop (2011, p. 224) called wine packaging “the lowest-hanging fruit”, hence, suggesting it was the easiest to change in support of carbon footprint reduction. Recently, various innovative packaging options have been introduced to the international wine marketplace, such as, canned wine, wine in recyclable bottles and Tetra Pak, as well as wine on tap. Furthermore, long-standing bulk packaging, like bag-in-the-box, receives increased consumer appreciation due to heightened environmental awareness and for economic reasons. However, as consumers have long been accustomed to glass bottles sealed with natural cork, research frequently found hesitation regarding non-traditional packaging (Barber et al., 2009;

Marin & Durham, 2007). In other disciplines, for example political science, environmentalism has long been a topic. Dunlap and Van Liere (2008) first proposed their New Environmental Paradigm (NEP) scale in 1978. Since then it has been a widely used tool capturing peoples' environmental orientation. Dunlap (2008, p. 3) claimed the NEP scale was "the worlds' most widely used measure of environmental concern". In conjunction with exploring knowledge about the environmental aspects of wine making, it was deemed appropriate to learn whether wine consumers of differing expertise have different degrees of environmental concern.

2. LITERATURE REVIEW

Relevant literature confirms that the motivation to drink wine is complex in nature. Marketing research has attempted to segment the wine consumer population and cluster those who share similar motivation. Various segmentation approaches are available (Bruwer & Siegrist, 2011; Hall & Mitchel, 2008; Lockshin et al., 2001). Bruwer and Siegrist (2011) suggested that knowledge, perceived value, age, and intellectual challenge significantly influence motivations to consume wine. Multiple researchers highlighted the significance of knowledge as a motivator for wine consumption and purchase behavior, while differentiating between subjective and objective knowledge (Hammond et al., 2013a; Hammond et al., 2013b; Barber et al., 2009; Johnson & Bastian, 2007; Dodd, et al., 2005). Objective knowledge is learned information stored in memory. Subjective knowledge is individual perception based on past drinking behavior, also considered one's self-confidence related to wine consumption (Taylor, et al., 2008). Past research has found a discrepancy between levels of subjective and objective knowledge (Taylor et al., 2008; Johnson & Bastian, 2007; Dodd, et al., 2005). Frequently, subjective knowledge was not found to be a reliable indicator of objective knowledge. Furthermore, previous studies suggested that subjective knowledge is a stronger predictor of behavior than objective knowledge (Hammond et al., 2013a; Johnson & Bastian, 2007; Dodd, et al., 2005). One may argue that based on these findings subjective knowledge, also viewed as wine consumers' confidence, is more important. However, as consumers become more environmentally aware and start questioning the production and origin of the foods and beverages they consume, it will become increasingly important for industry to discern what consumers know. Distribution, retail, and hospitality operators need to be prepared to answer questions.

As part of this pilot study, subjective and objective measures were taken from three groups of participants. The groups were assumed to have distinctly different levels of knowledge due to pre-requisites of participant recruitment. Additionally, based on prior research, no significant correlation between subjective and objective scores was expected.

Environmental impacts of human behavior have been a topic of interest for the general public as well as academic research for decades. Recently, the food sector has experienced an increasing demand for environmentally friendly products. The "green" consumer is looking for organic dairy products, fruits and vegetables, as well as recyclable packaging materials. Sustainability has become a key term for many industries. Zucca et al. (2009) reported that consumers reside in a state of confusion regarding various terms used to express environmentally friendly efforts in the wine industry, such as organic, green, biodynamic or sustainable and confirmed a low consumer awareness of environmental considerations related to winemaking, and grape growing. Compared to the food industry, the wine industry has been rather slow in its adaptation to environmental concerns. Forbes et al. (2011) found that while consumers in New Zealand claimed to be concerned about the effects of food production, a large proportion of their sample admitted not knowing how wine is made. The need for consumer education and further research was highlighted by Forbes et al. (2011), but the

current status quo of consumers' environmental wine knowledge is unidentified. Goode and Harrop (2011) suggested that consumers may not be very knowledgeable about the use of additives and other aspects of wine making or grape growing. Christ and Burritt (2013) pointed out that exploring environmental concerns in wine production is an under-researched field despite the recent growth of consumer interest and the increasing demand for wine. Goode and Harrop (2011) cautioned the wine industry; sooner rather than later wineries will be required to provide information and justification for their practices to address environmentally concerned consumers' demands. Environmental surveys across disciplines and countries have used the NEP scale to explore consumers' environmental concern (Kotchen & Moore, 2007; Casey & Scott, 2006; Shafer, 2006; Liu & Sibley, 2004). Pilot testing knowledge related to the environmental impacts of wine making and grape growing is warranted and relevant. It appears that knowledge and concern are related. Consumers who know more may be more concerned and vice versa. The quest for knowledge is likely driven to some degree by environmental concern; therefore, it was proposed that there is a difference between groups' relative levels of environmental concern.

3. METHODOLOGY

3.1. Design

The study was conducted in November 2013 utilizing Qualtrics (online survey data collection software). The study was approved by the Institutional Review Board of a Midwestern University in the United States. Data analysis was conducted using SPSS 21.0. The formal (directional) hypotheses under consideration were:

H₁: There will be significant differences ($p < 0.05$) between subject groups with regards to their subjective and objective knowledge scores.

H₂: There will be no relationship ($p < 0.05$) between subjective and objective knowledge scores.

H₃: There will be significant differences ($p < 0.05$) between subject groups' relative levels of environmental concern.

3.2. Participants

Forty-two surveys were collected. Thirty-eight questionnaires were complete and usable. The novice subjects ($n=11$) were recruited from a preparatory class for the American Court of Master Sommeliers' Level 1 seminar. Students in this class were between the ages of 21 and 23, and fairly inexperienced with wine. However, as part of the preparation class the students were exposed to fundamental wine education. The intermediate sample consisted of 15 participants; these participants were students recruited from a commercial grape growing and wine making class. The students had been exposed to sustainable aspects of wine making and grape growing as part of the class's curriculum. Additionally, industry experts ($n=12$) were recruited from the researchers' professional network. The survey was distributed to academics in the respective fields as well as industry professionals from wineries, as well as wine sales, marketing, and distribution. The industry experts were asked to pass the online survey on to colleagues. The total sample consisted of 21 male and 15 female participants (two subjects chose not to respond to the gender question).

3.3. Measures

The instrument was designed to measure the participant's knowledge of environmental practices in the wine industry. In this context, environmental practices referred to, but were not

limited to, the use of pesticides in the vineyard, the use of additives during wine making (e.g. sulfur or yeast), wine packaging, facility cleaning and maintenance, as well as waste (e.g. recycling) and water management. The questionnaire was modeled after previous instruments (Johnson & Bastian, 2007; Dodd et al., 2005). Objective knowledge questions were developed based on the review of sustainable wine making and grape growing literature pertaining to rules and regulations in the United States. The initial scale was reviewed by three academic and two industry experts and revised accordingly with the goal of providing easy to understand, non-ambiguous questions related to the environmental impacts of wine making and grape growing.

The final questionnaire (see Appendix 1) was composed of 3 subjective, 9 objective, and 15 environmental concern items adapted from Dunlap et al. (2000). Dunlap et al. (2000) reported inter-item reliability (Cronbach's alpha) of .83. This scale was designed to capture five factors of pro-environmental worldviews including: reality of growth limits, significance of the human species on the planet, delicacy of nature's balance, as well as, the possibility of an ecological crisis, and human control over nature. All even-numbered items were reverse coded, as disagreement indicated a pro-environmental worldview.

3.4. Results

The maximum objective score achievable (multiple choice items) was 9, however, no respondent scored 100%. The mean scores ranged from 4.00 (novice) over 4.33 (intermediate) to 5.75 (expert). One-way ANOVA was conducted to compare the objective scores between the three groups. Between group scores were significantly different ($t(36)=6.737$, $p=.003$). Tukey HSD analysis was applied to explore differences further. A significant difference ($p=.005$) was found between the expert and the novice group as well as between the expert and intermediate sample ($p=.015$). No significant difference ($p=.777$) was found between the intermediate and novice group. A detailed question-by-question analysis suggested that there were some questions where more intermediate-level participants than experts scored the correct answer.

A 7-point-Likert scale was used for the three subjective measurement items. The third item was reverse coded for the purpose of aggregating responses to a subjective knowledge score. Therefore, by summarization the maximum score was 21. With regards to the respondent's perception of their level of knowledge about environmental practices, the experts mean score of 16.15 indicated that they rated themselves as highly knowledgeable as compared to the intermediates, who rated themselves as generally knowledgeable ($\mu=15.13$), and the novices, who rated themselves as minimally knowledgeable ($\mu=10.55$). Tukey HSD analysis was further applied to explore differences. A significant difference ($p=.005$) was found between the intermediate and the novice group as well as between the expert and intermediate sample ($p=.001$). Reliability analysis of the 3-item-subjective knowledge scale was conducted. Cronbach's alpha of .815 for all three items and .845 for the first two items suggested high internal consistency. These findings support H_1 which proposed a significant difference in subjective and objective knowledge between groups.

Correlation analysis was conducted. Contrary to previous studies' findings, the data suggested that the subjective and objectives scores were significantly and positively correlated ($r(36)=.356$, $p=.026$). This finding failed to support H_2 which proposed that there was no relationship between objective and subjective knowledge scores. Multiple comparison analysis further explored the differences between samples. Tukey HSD suggested a significant difference in subjective knowledge levels between the novice and intermediate sample ($p=.005$) as well as between the novice and expert sample ($p=.001$). There was no significant

difference found in terms of subjective knowledge between the expert and the intermediate sample, suggesting that their self-perception was similar.

Examination of environmental concern of the three samples revealed the following findings. The high reliability of the scale was confirmed with Cronbach's alpha of .859. Across all three groups there was no significant difference regarding the participants' environmental score ($r(36)=.316, p=.731$). The mean scores were 72.27 (intermediate), 69.75 (expert) and 68.45 (novice). These findings failed to support H_3 which proposed that there were significant differences between subject groups' relative levels of environmental concern. Correlation analysis revealed no significant relationship between subjective or objective knowledge and environmental concern.

In summary, only one out of the three hypotheses was confirmed; the data provided evidence of a significant difference in subjective and objective knowledge between groups. However, the lack of support for H_2 was an unexpected and intriguing finding. Literature review suggested that previously no significant relationship between subjective and objective knowledge scores have been found, however, the data collected for this study suggested there was a significant correlation when analyzed by expertise. Additionally, due to their wine industry background it was expected that the expert group's subjects would achieve almost perfect scores, which was not confirmed by the data. A significant difference was expected to emerge for environmental concern across the groups of expertise, but all participants displayed similar levels of concern.

4. DISCUSSION

Even though a significant difference was found in terms of subjective and objective knowledge between the three groups, the detailed findings raise further questions. On one hand, the mean score (5.75) of the expert group was surprisingly low as it was expected to be closer to a perfect score. An examination of the questions found that, for four out of nine questions the intermediate participants were more likely to score correctly than the experts. Scoring correctly can be explained by the specific education these students in the intermediate group were exposed to during their commercial wine making class. At the same time, this may suggest that industry representatives may not be clear about the meaning of the various terms. Uncertainty about wine production practices and little exposure to information pertaining to environmental impacts could explain these findings. Regarding the use of sprays in organic grape growing over 30% of the sample ($n=38$) responded "cannot be sprayed at all," which may suggest a common misconception regarding the meaning of organic. Therefore, it seems crucial to educate sales and marketing personnel in retail, winery, and hospitality operations to enable them to meet the needs of consumers who display an increased concern regarding environmentally responsible practices. Recently, the wine industry has introduced more environmentally friendly wine packaging materials. Unless the consumer understands the benefits of these practices, it will be a challenge to overcome reluctance. For alternative materials such as bag-in-the-box, Tetra Pak, and cans, as well as dispensing methods such as wine on tap to be successful, the wine industry needs to increase consumer's knowledge.

The finding of a significant correlation between subjective and objective knowledge scores was unexpected. This may suggest adequate awareness across the members of each group regarding their actual level of knowledge. In other words the study participants did not think they were more knowledgeable than they actually demonstrated; an appropriate explanation of these findings. Students in the novice group were especially aware of their beginner status due to their enrollment in the level 1 sommelier course. Additionally, regarding environmental concern, there was no significant difference between the groups; hence, the proposed

relationship was not confirmed. Concern seems to be a relevant antecedent of knowledge. At the same time, environmental concern is subject to social norms. Thus, it is possible that participants' responses could have been based on what they deemed to be socially acceptable rather than what they truly thought or felt. This warrants further exploration, especially considering the display of knowledge. Could it be possible that consumers pretend to be environmentally concerned due to peer pressure? That, in turn, might explain the low levels of objective knowledge related to environmental impacts of the wine industry.

5. LIMITATIONS

The purpose of the study was to pilot test a newly proposed knowledge instrument. Various limitations such as the small sample size as well as the study location should be considered. Furthermore, the objective-knowledge-items were based on rules and regulations for the United States wine industry, therefore not all questions can be used in international studies. Additionally, wine making and grape growing is complex, therefore, more questions could be asked to assess consumers' knowledge level.

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APPENDIX

Appendix 1: Final questionnaire

1. Please indicate your *level of knowledge* about environmental practices in the wine industry.

1	2	3	4	5	6	7
Not very knowledgeable						Very knowledgeable

2. Among my circle of friends, I am one of the “*experts*” on environmental practices in the wine industry.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

3. Compared to most other people I know *less* about environmental practices in the wine industry.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

4. *Sustainable* means meeting:

- environmental, social and economic needs
- environmental needs
- environmental and social needs
- environmental and economic needs

5. In the United States, which organization certifies *organic products*:

- Food and Drug Administration (FDA)
- United States Department of Agriculture (USDA)
- Demeter Biodynamic Trade Association (DBTA)
- Environmental Protection Agency (EPA)

6. *Biodynamic viticulture* (grape farming) includes:

- use of mineral substances
- use of animal manure
- use of astronomy and astrology
- all of the above

7. *Organically* grown grapes may be sprayed:

- with some insecticides, fungicides, and herbicides
- with some insecticides
- with some fungicides, and herbicides
- cannot be sprayed at all

8. In the United States 100% *organic wine*:

- cannot contain added sulfites
- can contain up to 12ppm of added sulfites per bottle
- can contain up to 18ppm of added sulfites per bottle
- can contain up to 20ppm of added sulfites per bottle

9. In the United States for the production of *biodynamic wine*:

- .03-ounces of yeast can be added per gallon of grape juice
- .05-ounces of yeast can be added per gallon of grape juice
- .07-ounces of yeast can be added per gallon of grape juice
- yeast cannot be added

10. On average, how much *wastewater* is created per gallon of wine made:

Answer options provided in form of a sliding scale from 0-20 gallons

11. The majority of pollution (carbon footprint) can be traced back to:

- grape growing
- wine packaging
- wine making
- wine tasting

12. In the United States approximately 300 Million cases of wine are sold annually. What percentage (%) of bottles is recycled:

Answer options provided in form of a sliding scale from 0-100 %

13. We are approaching the limit of the number of people the earth can support.

1	2	3	4	5	6	7
Strongly						Strongly
Disagree						Agree

14. Humans have the right to modify the natural environment to suit their needs.

1	2	3	4	5	6	7
Strongly						Strongly
Disagree						Agree

15. When humans interfere with nature it often produces disastrous consequences.

1	2	3	4	5	6	7
Strongly						Strongly
Disagree						Agree

16. Human ingenuity will insure that we do NOT make the earth unlivable.

1	2	3	4	5	6	7
Strongly						Strongly
Disagree						Agree

17. Humans are severely abusing the environment.

1	2	3	4	5	6	7
Strongly						Strongly
Disagree						Agree

18. The earth has plenty of natural resources if we just learn how to develop them.

1	2	3	4	5	6	7
Strongly						Strongly
Disagree						Agree

The Impact of Eco-Friendly Attributes on Bordeaux Wine Tourism and Direct to Consumer Sales

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◦**Purpose:** *To explore the ability of Bordeaux wineries to attract tourists and drive cellar door sales based on eco-friendly attributes, e.g. being certified organic or biodynamic.*

◦**Design/methodology/approach:** *Qualitative semi-structured interviews with 12 winery owners and managers in the Bordeaux wine region.*

◦**Findings:** *From the owners/managers' perspective, visitors to eco-friendly Bordeaux wineries are not "accidental tourists", appointment only visitation policies are the norm and do not seem to be a barrier, wine tourism products are varied and attract visitors interested in qualitative experiences offering enrichment and learning, direct to consumer sales are an important channel for Bordeaux eco-friendly wineries, potential barriers to direct to consumer sales expansion include resourcing and the Bordeaux négociant structure.*

◦**Practical implications:** *There are two categories of managerial implications: for the winery and the wine region. Wineries should consider to conduct cultural profiling for certain groups of tourists, improve their tasting room and documentation standards, sell at the cellar door during en primeur week, convey eco-friendly certification on all communication materials and improve digital and Web 2.0 offerings. The Bordeaux wine region should integrate eco-friendly lifestyle elements into communication strategies, improve coordination between eco-friendly producers, offer a variation of Germany's strausswirtschaften, expand the existing wine route network, develop a simple financial model to determine tourism investment hurdle rates, increase the supply of rural guest lodging, improve coordination between private and public actors responsible for Bordeaux wine tourism and hold more eco-friendly wine festivals.*

Key words: Bordeaux wines, direct to consumer sales, eco-friendly wines, wine tourism

1. INTRODUCTION

In 2010, between 7.5 and 10 million foreign and domestic tourists visited a French winery (Baudouin, 2013, Lespinasse-Taraba, Dumont, Cholvy, and Puydebat, 2011). The majority dedicate a week to their visit (Bloch, 2011) and spend an average of €203 (ex-lodging) (Girard, 2013, Bloch, 2011). Given this healthy mix, there is significant potential for further development of wine tourism in France. Yet wine tourism for profit in the Bordeaux region is a relatively new phenomenon (Vignaud, 2011). Growth in Bordeaux wine tourism began in the 1990s, the result of multiple factors, including competition from New World wineries and the French wine crisis (Vignaud, 2011). In 2011, the Bordeaux wine region welcomed approximately four million visitors, an increase of 18% versus 2009 (Gombault and Coutellier, 2011). Yet the median number of visits per winery is just 100 per annum (Tarricq, 2011), mostly during the summer months (Bloch, 2011).

If wine tourism is a priority for the Bordeaux region (the 2016 planned opening of the €63 million Cité des Civilisations des Vins is a case in point), eco-friendly wines and wineries do not figure prominently. According to Barber, Taylor and Deale (2010), environmental tourism, or ecotourism, is an expression of tourism that takes place within the natural environment. Though wine tourism normally takes place within the natural environment, it is not often associated with ecotourism. Winescapes appear to be natural attractions yet, like national parks they are managed and regulated, products of a value system leading to a constructed view (Ryan, Hughes and Chirgwin, 2000, Gombault and Jolly, 2011).

The question of what impact eco-friendly attributes, hereby defined as being certified organic or biodynamic, have on a wine tourist's decision to visit a winery and purchase at the cellar door is valuable for tourism operators, destination marketers and eco-friendly winery managers. Targeting tourist segments that value eco-friendly credentials could help wineries differentiate themselves and increase lucrative cellar door sales. The purpose of this study is to investigate the ability of eco-friendly winery owners to attract tourists and sell them eco-friendly wines at the cellar door. Based on the literature review (Section 2), it appears that eco-friendly wineries and tourism are a good fit; interviews conducted (Section 3) seem to confirm this point (Section 4).

2. LITERATURE REVIEW

The field of wine tourism research has accelerated over the past two decades. A number of researchers have focused on the wine tourism destination features and competitive positioning based on the ability to connect with consumers (Getz and Brown, 2006, Orsolini and Boksberger, 2009, Weston, 2003). Among destination features, eco-friendly attributes and claims are starting to play a key role in attracting wine tourists, even in the Bordeaux region.

According to Weston (2003), successful wine tourism regions develop overtime like a heritage site. By creating a wine tourism place and marketing associated attractions in conjunction with the winery, wine tourism destinations can ensure a better future. From this perspective, physical distance can even be part of the wine tourism destination's appeal. Getz and Brown (2006) explored this topic by evaluating the level and characteristics of demand for long-distance wine tourism among Canadian consumers in Calgary, Alberta.

According to Orsolini and Boksberger (2009), wine tourists place the highest value on aesthetics (33%), entertainment (24%), escape (22%) and education (21%) when evaluating wine tourism experiences. This is in line with Getz and Carlsen (2008) and Quadri-Felitti and

Fiore (2012), who highlighted the importance of ‘edutainment’ in successful wine tourism destinations. As such, regional initiatives and individual cellar door activities can play an important role in attracting customers and developing direct sales for wineries.

2.1. Wine tourism in the Bordeaux region

In the Old World, wine tourism is inked to the natural environment as well as the area’s cultural, architectural gastronomic heritage (Frochot, in Hall, Johnson, Cambourne, Macionis, Mitchell and Sharples, 2000). Of the wine tourists in France who dedicate a week to their tour and spend €203 (ex-lodging), half their spend is on wine (€104). The balance is divided between food and beverage (€70), wine education (€15) and wine-related products (€14) (Girard, 2013, Bloch, 2011). By contrast, 43% of Napa Valley’s wine tourists allocate one day and spend \$150 (Bloch, 2011). In Spain, the average length of stay is 2.6 days and the average spend (ex-lodging) is €127 (Bloch, 2011).

The Bordeaux region is a popular wine tourism destination thanks to the outstanding reputation of its wines as well as its proximity to the Atlantic coastline (Frochot, 2000, Vignaud, 2011). Yet Bordeaux has been accused of being a latecomer to wine tourism due to the fact that Bordeaux wine producers traditionally sell their wine to *négociants* or cooperative cellars (Randelli and Schirmer, 2010, Lespinasse-Taraba et al., 2011). As a result of this commercial structure, the Bordeaux region does not have a strong tradition of vineyard hospitality or direct to consumer sales (Randelli and Schirmer, 2010). Being a latecomer can have its advantages in that best practices can be observed, potentially leading to the development of a superior offer.

Examples of outstanding Bordeaux wine tourism entrepreneurship include the Cathiards at Château Smith Haut-Laffitte (vinothérapie spa, Michelin starred dining, boutique hotel), Philippe Raoux at the Château d’Arsac (contemporary art collection) and La Winery, (fun wine education, fine and relaxed dining, contemporary art, wine shop), the Cazes at Château Lynch-Bages (Bages village shops and restaurant, contemporary art) and Bernard Magrez (cultural foundation, luxury wine tourism offering, large events) (Gombault and Coutellier, 2011; author, 2013).

Yet, the Bordeaux region is not a member of the 36 destinations that form “*Vignobles & Découvertes*”, an initiative launched in 2009 by Atout France, to promote wine and vine tourism across the country (Versace, 2011). Instead, Bordeaux offers a ‘*millefeuille*’ of wine tourism initiatives (Randelli and Schirmer, 2010). For example the Aquitaine region has “*Destination Vignobles*”, the Gironde département has “*Vignobles et chais en Bordelais*” (nearly 500 members), the Bordeaux Chamber of Commerce and Industry (CCI) promotes its “Best of Wine Tourism” label and the Chamber of Agriculture supports “*Bienvenue à la Ferme*”. The official wine route of Graves and Sauternes, with its three themed itineraries, information points, accommodation and restaurants, resembles official wine routes in other parts of France, e.g. Burgundy and Alsace. Unfortunately, other parts the Bordeaux region are less well structured and visitors must fend for themselves via the myriad information points or join an organized tour. According to Vignaud (2011), the D2, a local road running through the Médoc peninsula, is often referred to as the route des châteaux but it is not an official circuit.

Bruwer (2003) maintains “*the concept of a bounded space is vital to the idea of a wine route since it defines for its wine-producing members an identity that proclaims unique attributes for their wines and cultural heritage*”. Given the Bordeaux region’s rich architectural and cultural heritage, there is a clear opportunity to further structure its wine tourism offering to

ensure an authentic and multi-dimensional experience.

2.2. Ecotourism and Eco-tourists

Ceballos-Lascuráin's historical definition of ecotourism has transformed, according to Sharpley (2006), into "*a manifestation of alternative (to conventional, mass) tourism that takes place within the natural environment and, implicitly, a specific form of sustainable tourism development*". Moreover, Sharpley explains that ecotourism "*is also considered to be a form of tourism that challenges the traditional structure and inherent power relations of international tourism*". In short, ecotourism is a means of shifting power from corporations (e.g. Thomas Cook, Tui) to local providers for which there are three pillars for development (Sharpley, 2006):

1. Environment: Ecotourism is low impact tourism that contributes to the conservation of natural areas.
2. Development: Ecotourism should encourage local participation and sustainable socio-economic benefits.
3. Experience: Ecotourism should provide opportunities for learning and meaningful encounters.

Sharpley (2006) also explains that "*given the broad interpretation and widespread appropriation of the term, some organisations have now re-defined ecotourism as 'responsible' tourism, emphasizing the role of tourists and their interaction with local communities and the environment*".

The International Ecotourism Society describes tourists pursuing "*responsible travel that conserves the natural environs and sustains the well-being of local people*" as eco-tourists (Prebensen and Lee, 2013). Sharpley (2006) suggests using behavioural attributes to distinguish the 'regular' or mass tourist from the eco-tourist. He says an eco-tourist should have "*a positive interest in the environment, culture and development of the destination area/community...[and his/her behaviour] should, ideally, be framed by positive motivations and attitudes towards behaving in a consistently responsible manner*". He also reveals that studies of eco-tourist behaviour and motivations are inconclusive with regards to the extent to which environmental values are powerful motivators in the demand for ecotourism; ego-centric motivational forces and destination pull tend to dominate leading to the conclusion that eco-tourists, like 'regular' tourists, consume ecotourism products for personal benefit. As Ryan *et al.* (2000) humorously assert: "*it must be kept in mind that ecotourists are often sophisticated, educated, but they are on holiday!*" The eventual consumption of vinous ecotourism products by holidaymakers is not the worst outcome for eco-friendly wineries.

Sustainable wine tourism and the host community perspective is the subject of a case study by Poitras and Getz (2006). The researchers investigate the Canadian town of Oliver in British Columbia, an area "*where local economic viability is increasingly dependent upon wine tourism*". They propose a strategic planning sustainable wine tourism framework based on the "*three pillars of economic, environmental, economy and social sustainability*" as discussed by Hall [et al.] (2000). Concerns related to sustainable wine tourism include "*unique issues pertaining to the resources used (i.e. the land and water, labour, capital, and infrastructure inputs necessary for grape growing and wine making), specific forms of wine tourism development (e.g. visitor facilities and events at wineries, wine-themed interpretation and information centres, wine museums, wine-themed villages, wine country tours), and the specific impacts caused by wine-related tourism (such as increased traffic on rural roads,*

development of services and facilities in agricultural areas, and new and increased spending patterns)". The authors underline the importance of private-public partnerships where environmental, economic and social goals are managed holistically. While their recommendations are tailored to Oliver, their approach is applicable to other wine regions.

2.3. Summary of research objectives and questions

This research aims to contribute to the body of knowledge regarding the impact of organic or biodynamic certification on the choice of a Bordeaux region wine tourism product and cellar door purchases. The study was guided by the following questions:

- Q1: Do eco-friendly attributes positively impact wine tourism offerings?
- Q2: Do eco-friendly attributes positively impact wine tourist purchase behaviour?
- Q3: Is it worthwhile for eco-friendly producers to welcome wine tourists?
- Q4: Can improved wine tourism offerings attract more eco-friendly wine consumers and increase direct to consumer sales?

3. METHODOLOGY

3.1. A qualitative and exploratory approach

This research involved three steps: a preliminary secondary data gathering of eco-friendly wine producers in the Bordeaux region, twelve in-depth interviews with a nonprobability sample and an analysis. As no previous research was found on this topic for the Bordeaux region, an exploratory research methodology was selected to encourage participants to share their experiences and views. The in-depth interviews were conducted at the winery so interviewees would be comfortable in their own surroundings. Being at the winery also provided the researcher the opportunity to observe the cellar door, tour the winemaking facility, visit tourist offerings (e.g. guest rooms, restaurant), view cultural and/or heritage aspects (temporary art exhibitions, architectural features) and see the winescape.

In the case of eco-friendly wine production, hereby defined as being certified organic or biodynamic, there are myriad reasons why a wine producer decides to embrace this approach and various motives for a tourist to visit an eco-friendly winery. Personal interviews provide insights that otherwise might be difficult to unearth during a focus group or single dose of observation. With the consent of the interview participants, all interviews were recorded, enabling the researcher to maintain eye contact and detect non-verbal cues. Listening more than speaking, demonstrating patience, avoiding open displays of judgement and reiteration techniques were employed during the interviews. Interviews ranged from one to two hours and were usually followed by a tour and tasting. Interviews were conducted in French and then transcribed and translated into English by the author.

The literature review provides a number of benchmark examples of inductive method in-depth interviews. Poitras and Getz (2006) conducted face-to-face interviews with winery owners/managers, government officials, agriculturalists, accommodation operators and recreational tourism providers. Scherrer et al. (2009) conducted semi-structured interviews with wineries in Tenerife and La Palma in the Canary Islands. Like Poitras and Getz, the authors were able to generate a valuable list of proposals for the Canaries' to develop a long-term strategy for rural food and wine tourism. Bruwer (2003) conducted face-to-face interviews with South African wine route estate enterprises in his endeavour to understand the nature and extent of the 'product' on offer. Gombault and Derbaix (2011) conducted an in-

depth interview with the project management team and lead architect of the future Cité des Civilisations du Vin.

3.2. Interviews topics and content

Content and questions were partially derived from the existing knowledge on eco-friendly wines and wine tourism (Barber, Taylor and Deale, 2010, Barber, Taylor and Strick, 2009, Carlsen and Charters, 2006, Croce and Perri, 2010, Hall and Sharples, 2008).

Key aspects covered during the interview:

TOPIC	CONTENT
Why organics or biodynamics?	Drivers, philosophy, rationale, experience Benefits and/or drawbacks.
Certification and labelling	Why or why not? Benefits and/or downsides Commercial impact
Visitors/wine tourists	Number of visitors per annum Opening hours and seasonality Tracking system Mailing list Newsletters/social media, other communication Dedicated staff
Wine tourism product/visitor experience	Specialised tastings, B&B, restaurant, music festival, etc.
Impact of being an organic or biodynamic producer	Visitors' prior knowledge of organic/BD wine % of organic/BD interested visitors Organic/BD communication strategy? Why/why not? % DTC sales and impact of being organic/BD on DTC sales
Evolution in visitor attitudes	Historical vs now and current trend for "natural" wine
Future strategy (1-3 years)	Plans to increase DTC sales (e-commerce?) More/different wine tourist products Communication strategy (changes, increase)
What is needed to develop more direct sales activity?	Benefits/downsides, rationale, examples

3.3. Interview participants

Potential interview candidates in the Bordeaux region were identified during two eco-friendly wine fairs concurrent with Vinexpo in June 2013: a professional tasting of “natural” wines at Moulin Pey-Labrie (Fronsac, 16 June 2013) and the La Renaissance des Appellations biodynamic wine fair (Bordeaux, 17 June 2013). Other events during Vinexpo (Expression of Organic Wine Growers tasting and the multi-producer organic wine stand) provided the opportunity to meet a variety of eco-friendly producers. These experiences, coupled with additional internet research and input from an eco-friendly Bordeaux-based wine seller, led to the compiling of a non-probability sample list of eco-friendly Bordeaux producers who welcome wine tourists and sell directly to the public. Small and large producers (between 10 and 100 hectares) were chosen for their range of experiences.

Table 1: Participants summary

Château Name	AOP	Interview Participant Roles
de Bellevue	Lussac-Saint-Emilion	Owner
du Champ des Treilles	Sainte-Foy-Bordeaux	Owner
Falfas	Côtes-de-Bourg	Owner
Fonroque	Saint-Emilion GCC	Owner & Hospitality Manager
Fonplégade	Saint-Emilion GCC	Hospitality Manager & Technical Director
Guiraud	Sauternes 1er GCC	Co-owner & Brand Ambassador & Wine Tourism Manager
La Grave	Fronsac, Canon-Fronsac	Owners
Le Puy	Francs-Côtes-de-Bordeaux	Owner
Moulin Pey Labrie	Fronsac, Canon-Fronsac	Owner
Tire Pé	Bordeaux Rouge	Owner
Troplong-Mondot	Saint-Emilion 1er GCC	Marketing Dir. & Wine Tourism Director
Clos Puy Arnaud	Castillion-Côtes-de-Bordeaux	Owner

3.4. Data analysis

Interviews were conducted in French and responses were transcribed and translated into English by the author. The provided responses were categorised and analysed using an Excel grid of recurring responses.

4. FINDINGS

4.1. Rationale for adopting an eco-friendly approach

The rationale for adopting organic and/or biodynamic methods varies among producers. For some it is a family tradition; others came to the conclusion after years of observing the adverse impact on the soil and vines as a result of conventional viticulture. New ownership and change of life events also played a role.

4.2. Certification and labelling

Some of the sample wineries have been certified organic or biodynamic for decades; others recently certified. Many properties have been working organically or biodynamically for decades or even generations; though certification was an afterthought, often driven by importer requests. The mostly widely cited certification benefit is the ability to communicate certification status. Two-thirds of châteaux proudly display their organic or biodynamic status on their label. Three properties also display their certification logo on their entrance signboards. According to all three owners, this type of visibility drives drop-in visits and direct sales, especially in the summer. Despite the benefits, the certification process is not universally appreciated. Drawback include increased administration and cost.

4.3. Visitors/wine tourists

The participating châteaux receive between 50 and 7,000 visitors per annum. The broad range is due to a number of factors including size, location staffing and strategy. Due to resourcing, the majority the properties are open are by appointment only and visitor management information systems are the exception. Just over half of the châteaux have active consumer mailing lists and only one-third less issue regular newsletters.

4.4. Wine tourism products

The 12 properties offer a range of wine tourism products. All provide tours and tastings of several wines. One property operates a gastronomic restaurant and offers luxury guest accommodation. Another hosts summer concerts and participates in *balades gourmands*, a several kilometre vineyard stroll where one part of a four-course meal is provided at a different winery accompanied by live music. Another offers a selection of tours and wine and food pairings, as well as seated lunches, dinners and cocktail receptions; they even hold an autumn moon celebration. Underground cellars with historic carvings, a guesthouse situated in the middle of the vines, in-depth explanations of biodynamic methods and biodiversity vineyard walks are some of the other offerings. Several owners alluded to the importance of making a personal connection with visitors.

4.5. Impact of being an eco-friendly producer on visitation

One group of interviewees maintain the majority of their visitors seek them out because they produce eco-friendly wines. These visitors, often from northern Europe, have already tasted the wine are not “accidental tourists”. Word of mouth also plays a role, as does an eco-friendly logo at the main entrance to the winery.

A second group of interviewees revealed that their eco-friendly credentials are not the main draw for their wine tourists. Being listed with the Bordeaux tourism office and/or the local *La Maison des Vins* drives visitation from ‘normal’ tourists. Château architecture attracts heritage tourists as does proximity to Saint-Emilion, a UNESCO world heritage site. Concerts and *balades gourmandes* attract visitors interested in music, landscape, the outdoors, gastronomy and the arts. Being a *Grand Cru Classé* or classed growth is also an important factor. In many cases, classed growth visitors are not even aware of a winery’s eco-friendly credentials.

4.6. Evolution in visitor attitudes

Responses to the question about the evolution of visitor attitudes to organic and biodynamic wine were noteworthy. One producer noted whenever a major food crisis attracts media attention, consumers become more interested in organic products. Several producers mentioned the current “fashion” or “trend” for organic and biodynamic wine, though consumer mind-sets for purchasing these wines are still work in progress. Another producer commented on the number of tourists seeking qualitative experiences that offer enrichment and learning, “more than just going to the beach”. Several producers observed increased consumer interest and understanding of eco-friendly practices, particularly among foreign tourists.

4.7. Future strategy and direct to consumer sales

Increasing export sales was a common theme among interviewees. As for increasing direct to consumer sales, responses were mixed. In the case of two classed growth properties, direct to consumer sales were described as a “complimentary activity” and a “promotional tool” - a way of ensuring wine tourists do not leave empty handed, or worse disappointed, without creating any conflict with the *négociant* structure. Conversely, small properties said they would be happy to increase direct sales because of the positive impact on margins and profitability. Interestingly, more than half the sample sells between 10% and 66% of their wine directly to consumers already. The challenge is how to sell more without significantly increasing overhead costs. Several producers said they would like also like to transform dormant historic buildings

into guest accommodation.

4.8. Requirements for increasing direct sales and wine tourism

When asked what is needed or what is missing in order to develop more direct sales and wine tourism activity, the responses were clear: more than half the interviewees said staffing is a barrier; they personally don't have the time to dedicate themselves to the task. Unfortunately, employment costs are high and most say it would be hard to justify the cost of hiring someone for direct sales and tourism, at least initially. Moreover, the classed growth properties are very committed to the *négociant* system though one has an active wine club.

5. DISCUSSION AND IMPLICATIONS

5.1.

This research endeavoured to explore the ability of eco-friendly Bordeaux wineries to attract tourists and drive cellar door sales from the perspective of winery owners and managers. Based on the research, the answer would appear to be that eco-friendly Bordeaux wineries can; however, there is plenty of room for improvement. A summary of the responses to the questions that guided the study is as follows:

Q1: Do eco-friendly attributes positively impact wine tourism offerings? According to the interviewees, there is a niche group of eco-wine tourists who visit their wineries specifically because they produce organic and/or biodynamic wine. These visitors have prior knowledge of their product and are not "accidental tourists". As such, appointment only visitation policies do not seem to create a barrier. Such visitors tend to seek out tourism experiences offering enrichment and learning.

Q2: Do eco-friendly attributes positively impact wine tourist purchase behaviour? Like any other kind of tourism, wine tourism is subject to assumptions and omissions (Ryan et al., 2000). Eco-friendly wineries that clearly exhibit the lifestyle that accompanies organic and biodynamic viticulture cited the importance of the personal connections established with their visitors. These visitors purchase at the cellar door and tend to remain loyal customers. This accounts for the percentage of direct sales for half of the sample base: between 10% and 66%.

Q3: Is it worthwhile for eco-friendly producers to welcome wine tourists? Direct sales to wine tourists improve a winery's margins by eliminating middlemen, reducing freight and shipping costs and building customer bases. In the case of three sample wineries, the loyal direct *en primeur* sales customer base also provides improved cash flow.

Q4: Can improved wine tourism offerings attract more eco-friendly wine consumers and increase direct to consumer sales? The recent increase in French wine tourism and the steady growth in organic French wine sales beg an improved offering. By offering wine tourism products that attract tourists also interested in culture, heritage, gastronomy, etc., eco-friendly wineries can better promote their wines and attract new consumers to the eco-friendly wine category.

5.2. Managerial implications

There are two categories of managerial implications: for the winery and for the wine region. From a winery perspective, and based on our findings, owners / managers of eco-friendly wineries should consider to:

- Conduct a cultural profiling of Belgian and UK/Irish vs. French tourists and develop targeted marketing strategies for eco-wine tourism offerings that meet their specific expectations.
- Reduce potential visitor discomfort and/or anxiety by providing good standard tasting rooms, multi-lingual tasting notes, clear price lists and organic/biodynamic wine production summary documentation.
- Take advantage of the *en primeur* week and offerings to sell more eco-friendly wine directly to consumers at the cellar door and via newly established wine clubs.
- Convey organic and biodynamic certification on all communication and packaging materials as a point of differentiation.
- Welcome more tourists at eco-friendly wineries to improve cellar door sales and profit margins, create personal relationships and engender positive word of mouth publicity.
- Improve digital and Web 2.0 offerings, utilisation and analytics to ensure eco-friendly wine tourist satisfaction, positive word of mouth publicity and improved consumer understanding.

From a regional perspective, and based on our findings, the various stakeholders involved in the Bordeaux wine tourism development should consider to:

- Increase eco-friendly awareness among “normal” consumers by integrating eco-friendly lifestyle elements into all communication strategies and ensuring eco-friendly winery participation in a broad range of wine tourism offerings.
- Improve communication and coordination between eco-friendly Bordeaux producers to offer a variation of *strausswirtschaften*¹, to expand and extend the existing Bordeaux wine route network.
- Develop a simple financial model for small and medium-sized wineries to determine the hurdle rate for eco-friendly wine tourism product infrastructure and human resource investments.
- Increase the supply of rural guest lodging and sustainable tourism products in the Bordeaux wine region and ensure that nature-based, sustainable and family-friendly activities are included. Offering hands-on experiences/interaction with eco-friendly winescapes is critical.
- Improve coordination between the various private and public actors responsible for the management and promotion of the Bordeaux wine tourism region. Participate in Atout France’s “Vignobles & Découvertes”.
- Hold more eco-friendly wine festivals and events throughout the year to attract a broad base of attendees and avoid “touristification”.

In summary, an eco-friendly winery visit is an opportunity to experience a way of life. It should provide eco-friendly wine tourists aesthetic, educational, entertaining and escapist experiences that can fulfil personal development needs, build brand loyalty and generate word of mouth interest leading to more direct sales and better profit margins.

¹ *Strausswirtschaften* (literally, “bouquet at the inn”) are very popular in German wine regions in the spring and summer months. Winery owners are permitted to serve their own wine along with cold, regional dishes to tourists from May through September. No special licensing is required, normal business regulation does not apply and no additional taxes are due. Each state sets its own conditions for operation. The concept also exists in Austria.

6. CONCLUSION

This research endeavoured to determine the impact of eco-friendly attributes on the choice of a Bordeaux region wine tourism product and cellar door purchases. It also investigated the benefits and value of welcoming wine tourists to eco-friendly producers. There is an eco-friendly market segment buying wine directly at the cellar door in the Bordeaux region. Half of the sample wineries sell a significant percentage (between 10% and 66%) of their wine directly to consumers who search them out because they are eco-friendly; it is not accidental tourism.

6.1. Research limitations and directions for future research

There are several limitations to this research. Limitations include the sampling method and sample size. The sample is non-probabilistic and the researcher identified participating wineries. Another limitation is the single case study aspect. This is compounded by the case study being comprised of only winery owners and managers' views; it does account for consumers' experience and opinions. The primary data generated are limited and cannot be generalised to the entire Bordeaux region.

Suggestions for future research include a quantitative study of eco-friendly wine tourists in the Bordeaux region. This could be accomplished by attending a variety of wine tourism events such as concerts, open houses, *balades gourmands* and eco-friendly wine fairs. Similar studies could also be replicated in larger eco-friendly French wine producing regions, namely Languedoc-Roussillon and Provence. In addition to producing more eco-friendly wine, these regions are highly touristic and rich in nature-based, heritage and cultural offerings.

Further research could also include cross-cultural aspects of eco-friendly wine tourism. As demonstrated by Prebensen and Lee (2013), there are distinctly different approaches to tourism experiences according to nationality and culture. Studies of UK/Irish and Belgian nationals would be the most interesting for Bordeaux-based wine tourism. As domestic visitors account for 60% of France's wine tourists, it might also be worthwhile to investigate if regional cultural differences within France have an impact on eco-friendly visitor expectations and experiences.

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Perceived Efficacy of Sustainability Strategies in the U.S., Italian, and Spanish Wine Industries: A Comparative Study

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Abstract:

Purpose — This investigation compares the perceptions of competitive advantage (cost leadership and differentiation) with the practices of U.S., Italian, and Spanish wineries.

Design/methodology/approach – Data are collected via self-report web-based surveys in California, Tuscany, and Catalonia during the most severe economic downturn in the industry, from 2010-2013.

Findings – Of the 260 respondents among the three country samples, over 75% are family-owned, family-managed. Respondents indicate who has implemented a clear business case for an Environmental Management System (EMS) and who has not. Benefits and challenges of implementing sustainability practices are also addressed.

Originality/value – Activities that create competitive advantages for wine businesses are understudied; this research bridges that gap.

Practical implications - A comparable percentage of respondents across the three countries indicated a 'clear business case for EMS.' Wineries in all three countries perceive that they have competitive advantage through implementation of EMS and commitment to sustainable practices. Top perceived benefits for respondents from the U.S. and Italy are focused on cost reduction strategies, while top perceived benefits for Spanish respondents are focused on differentiation strategies.

Key words: Competitive advantage, Cost leadership, Differentiation, Environmental Management System (EMS), Multi-country analysis.

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We have a constant battle to get the recognition we deserve with all the work we've done on sustainability. The industry is very green — and yet that's something that's not widely known.

— Barbara Banke, owner, Jackson Family Wines, Sonoma, California, USA, quoted by Penn, C. (2011).

Today, being 'natural' has become a cliché in the wine industry: I am only trying to attract consumers because they are interested in the quality of my products. First of all mine should be considered as a good wine and, second, it should be considered as a biodynamic wine...I would not say that 'going green' is my strategy, unless you would define strategy as anything else than a coherent behaviour.

— Stella di Campalto, owner, Stella di Campalto, Montalcino, Italy, quoted by Santini, C. *et al.*, (2011).

In my vineyard, it is easy to see chickens and geese walking the vineyards that in addition to their contribution to soil organic matter, are natural predators of many insects ... a real respect for the environment.

— Miguel Torres, Chairman and CEO of Bodegas Torres, a fourth generation family business.

1. IMPORTANCE OF THIS INVESTIGATION

The global wine industry, which is comprised primarily of small-medium enterprises (SME), has survived numerous environmental jolts in during its long evolution in the Old World (Europe) and relatively shorter existence in the New World (Australia, New Zealand, South Africa, South America, and the United States). Wine businesses today confront survival threats from the natural world such as rising energy prices, water scarcity, mounting concerns about chemical exposure, and climate change (Guthey and Whiteman, 2009; Hertsgaard, 2010). Mitigating these threats involves many different actors and institutions in the winery owner or manager's decision to formalize a business case for sustainability. Stakeholder pressures can drive adoption of sustainable practices, which, in turn, can result in product innovation, pollution prevention, and stewardship of natural resources (Berns *et al.*, 2009; Carrillo-Hemosilla *et al.*, 2010).

As the scope and intractability of an environmental problem rise, so do opportunities for innovation of sustainable processes and products in the pursuit of a sustainable competitive advantage (Porter and Van Der Linde, 1995). Such process and product innovations may be positively related to business performance (Nguyen and Slater, 2010; York and Venkataraman, 2010). Prior researchers have found that business age, size, and ownership (public v. private) are related to investments in sustainable systems (Elsayed, 2006; Melnyk *et al.*, 2003; York and Venkataraman, 2010). Because of the huge sunk cost associated with these investments, incumbent businesses may resist adoption due to fears of cannibalizing existing product lines and instead elect to pursue only those activities considered absolutely necessary for regulatory compliance (Gabzydlova *et al.*, 2009; Hughey *et al.*, 2005; Manktelow *et al.*, 2002). Younger, entrepreneurial agricultural businesses, conversely, show a propensity to invest in innovations that supplant existing structures, some creating new standards for sustainable processes and products (Carrillo-Hermosilla *et al.*, 2010; Gilinsky *et al.*, 2008).

1.1. Wine Industry Overview

Wine is a global business, yet wine as a product continues to be defined by their origin (Orth *et al.*, 2007). An estimated 64% of the export market share is concentrated in the hands of ‘Old World’ countries e.g. Italy, France, Spain, Portugal and Germany, while amongst the ‘New World’ producers, United States wine businesses own an estimated 5 percent share of the world market (USDA, 2007). Growth in global demand is mainly being driven by a shift in consumers’ preferences and lifestyles in some established consumer markets, such as the United States and United Kingdom, or by new consumers in emerging markets, such as Brazil, China, India, or Russia. Consumption in traditional ‘Old World’ wine producing nations, such as Italy or France, has been decreasing in the first decade of the 21st century.

After a period of unprecedented and sustained growth from 2002-2007, wine producers around the world sought an edge to differentiate their brands and also to reduce costs during as well as in the immediate aftermath of an unprecedented 2008–2009 industry downturn. Many wineries faced financial difficulties due to market saturation. Almost all wine producers experienced downward pressure on prices and margins. Some industry observers opined that wine producers faced a newly ‘hyper-competitive’ trading environment. The rate of new brand introductions slowed in 2009 and 2010, in a period when wine wholesalers and distributors were struggling to sell off a backlog of wine inventory and thus less receptive to taking on new wines to sell (Penn, 2011). The premium wine-producing regions of California in the United States, Tuscany in Italy, and Catalonia in Spain, respectively, were not immune to these trends.

1.1.1. United States

Among all 50 producing states in America plus the District of Columbia, California maintains a leading role in the United States wine industry: 43 percent of all U.S. wineries are settled in California, holding an estimated 63 percent of the United States wine market share by value of cased goods sold (Wine Institute, 2011). Some favourable market conditions, together with the latest efforts in setting bilateral and multilateral trade negotiation for reducing export barriers, appear to be creating opportunities for a further globalization of the California wine industry. To many players in the United States wine industry, investments in sustainability could be seen as ways to reduce costs and meet the ‘triple bottom line’.¹ As of early 2011, some 1,237 California vineyard and 329 winery owners voluntarily participated in the Sustainable Winegrowing Program (SWP), despite widespread perceptions that sustainable farming practices increased the cost of production and lowered crop yields. According to the Napa Valley Vintners Association Napa Valley boasted 404 premium wineries in 2011, of which 60 were classified as ‘Green’ or ‘Sustainable’ in some fashion.

1.1.2. Italy

Italy, as the top world producer of wine by volume, possesses the greatest number of wineries and has among the highest per capita wine consumption rates in the world (FAO, 2005; ISTAT 2012). Tuscany produces 10 percent of all Italian premium wines and represents the leading

¹ The ‘triple bottom line’ called upon producers to measure the impacts of their activities upon ‘people, planet, and profit,’ that is, creating social, environmental, and economic value. That the wine industry was greening was borne out by a report issued by the California Sustainable Winegrowing Alliance in 2009 (Brodt and Thrupp, 2009).

region for premium wine production in Italy amongst the 72 DOCG in that country (ISTAT, 2004). As a preponderance of Italian wineries are family-owned and operated businesses (Gallucci and D'Amato, 2013), in order to be successful over the long-term, they perceive sustainability strategies as necessary in order to increase their resilience to significant competitive forces in the marketplace (Flint *et al.* 2011). Italian firms are also showing a growing interest for sustainability in general, believing a sustainable orientation could represent a strategic asset for facing the market challenges emerging from the economic crisis that is affecting the country (GreenItaly, 2012). As of 2012, 8 percent of Italian grape acreage is organic, which equates to 57,000 hectares (Nomisma, 2014). With the increasing organic wine demand by Italians and the recent evolution of the European Regulation for organic wine and grape production, the Italian green wine market has attracted many producers that are offering wines under various bio-sounding labels, e.g., free wine, pure wine, natural wine (Federbio, 2014; Nomisma, 2014).

1.1.3. Spain

According to data published by its Ministerio de Agricultura, Alimentación y Medio Ambiente, Spain is the country with the largest area of vineyards in the world. In 2011, its 1,002,210 hectares of vineyards represent one-third of the total area of the European Union dedicated to vineyards (MAGRAMA, 2012a, b). Moreover, wine grapes are the third most widely cultivated crop in Spain, behind cereals and olives (López-Guzmán *et al.* 2011). Spain also claims to be the leading country engaged in organic viticulture, owing to its 57,000 hectares of land in production of organic grapes, which in turn represents 5 percent of the total grape production nationally. Spanish organic grape producers added 3,000 hectares alone in 2010 (Stolz and Moschitz, 2013). From 2007-2012, eco-farmed grapes have grown by 230 percent in volume with the region of Castilla-La Mancha leading the way (Cuilhé and Martínez, 2013). A “green revolution in winemaking” began in the 1970s, when Josep M^a Albet Noya converted the region of Penedès (Barcelona) to sustainable farming. Alvaro Palacios, Telmo Rodriguez, and Peter Sisseck, Bodegas Torres, and other distinguished wine producers later helped to promote the evolution of biodynamic farming in Spain (Martinez, 2013).

1.2. RESEARCH QUESTIONS AND ORGANIZATION OF THIS PAPER

Prior studies of wine businesses and sustainability have been primarily descriptive and have focused on the internal, external, and strategic factors leading to implementation of environmental management systems (EMS) (Dodds *et al.*, 2013; Fearne, 2009; Gabzdylova *et al.*, 2009; Hughey *et al.*, 2005; Marshall *et al.*, 2005; Marshall *et al.*, 2010; Raffensberger and Catska, 2009). Other studies have examined eco-labeling or eco-branding product differentiation strategies to ascertain if those attributes enable a wine brand to stand out in a crowded fight for “mouth share” (Brugarolas *et al.*, 2005; Forbes *et al.*, 2009; Fotopoulos *et al.*, 2003; Remaud *et al.*, 2008). Other research into wine businesses and sustainability has focused on the factors leading to adoption of EMS (Atkin, *et al.*, 2012; Fearne, 2009; Gabzdylova *et al.*, 2009; Hughey *et al.*, 2005; Marshall *et al.*, 2010). Research with country comparisons can be found, but mainly focus on country of origin with respect to consumer perceptions, evaluation of wines, or brand image (Chaney, 2002; Guidry, *et al.*, 2009).

There have been relatively few comparative global studies on sustainability strategy in the wine industry (Gilinsky *et al.*, 2008; Grimstad, 2011; Marshall *et al.*, 2010). Research has yet to uncover whether or not firms' pronouncements on sustainability match their actions, and if so, to what extent country location impacts these strategic decisions (Bernabeu *et al.*, 2008; Melnyk *et al.*, 2003). This research answers the call for a cross-cultural study focusing on similar businesses across three countries (Orth *et al.*, 2007). We seek to answer three basic questions:

1. Are there country similarities or disparities in implementing sustainability in practice?
2. Is there congruence between attitudes towards sustainability and actual implementation of EMS?
3. Are there country similarities or disparities in perceived benefits of sustainability strategies?

The next section summarizes prior research into the connections between attitudes towards sustainability and implementation of EMS. The third section describes the research design and presents descriptive statistics from our samples from Italy, Spain, and the United States. The fourth section presents preliminary findings via tables containing descriptive statistics from the investigation. We close by presenting a preliminary discussion of results and propositions to be tested in a future study.

2. RELEVANT RESEARCH ORIENTATIONS

A sustainable strategic position, according to Porter (1980), requires managers to choose between trade-offs. The conventional wisdom circa 1990 held that investments in improved environmental performance would reduce profits due to increased costs, reduced quality or increased lead-time. Porter started a shift in producers' attitudes towards environmental responsibility maintaining that pollution was simply waste that diminished value and indicated problems in production processes and products (Porter, 1991), thus eliminating pollution waste would actually improve competitiveness.

There is a movement of wine businesses toward sustainable farming and business practices, whether organic, biodynamic, or a combination; and these environmental strategies can work toward a differentiation of their brand at retail (Steinthal and Hinman, 2007) or serve to optimizing the economic return on investments with cost reductions. Researchers have sought to empirically prove theories advanced by Porter (1980, 1985) and Barney (1997) to determine if there are linkages between perceptions of the need for sustainability strategies and a clear business case for implementation of those strategies. See Table 1 for an abridged summary of prior research applicable to this study and the perceived benefits of a sustainability strategy.

Table 1. Abridged summary of prior research into perceived benefits of a sustainability strategy.

PERCEIVED BENEFITS OF A SUSTAINABILITY STRATEGY	AUTHOR(S)
<u>Cost reductions</u> <ol style="list-style-type: none"> 1. Relative price: eco-efficient materials, re-use by-products, high process yields 2. Relative share: radical process innovations to disrupt mature markets 3. Barriers to entry: lowest price and lowest impact on environment 	Porter (1991) Barney (1997) Sroufe (2000) Orsato (2006)
<u>Manifestations of competitive advantage</u> Scale economies, learning curve, differential low-cost access, waste minimization,	

technological innovation, structure, employee retention and compensation	
<p><u>Differentiation</u></p> <ol style="list-style-type: none"> 1. Consumer perception: clear benefit or environmental value 2. Product/service uniqueness: difficulty of replication or imitation by rivals 3. Consumer confidence: reputation, loyalty/retention, life cycle value <p><u>Manifestations of competitive advantage</u></p> <p>Product features such as organic or biodynamic, clear linkages between environmental management and business functions, early entry timing, location, product mix, inter-firm linkages, improved service, image</p>	<p>Wood (1991) Porter & Van der Linde (1995) Barney (1997) Waddock <i>et al.</i> (2002) Reinhardt (1998) Orsato (2006)</p>

Source: prepared by authors for use in this investigation.

In strategic management, according to the resource based view (RBV) theory, sustainability practices can serve as part of a firm’s capabilities that contribute to performance (Barney, 1991; Peteraf, 1993; Wernerfelt, 1984). The RBV starts with the assumption that the desired outcome of managerial effort is the establishment of a sustainable competitive advantage. The basic elements of an effective EMS are described in ISO 14001 standards, and as such, ISO 14001 certification can be thought of as an intangible resource that improves the quality of management in order to provide operational efficiencies (Delmas, 2001).

Prior research into EMS tools, such as ISO 14001, have found that they have the ability to provide economic benefits to certified firms in terms of competitive advantage as well as improving environmental performance (Bansal, 1999; Corbett and Kirsch, 2000). Direct financial benefits might include a reduction in regulatory fines and increased operational efficiencies. Certification can also indicate that the company has a sound environmental system in place to placate external stakeholders such as customers, investors, and regulatory agencies.

An expanded version of RBV theory is the natural resource based view, one that includes a firm’s environmental practices (Hart, 1995). Prior studies based on the natural resource based view construct involved large United States manufacturing firms. These studies link enhanced environmental practices with improved economic, operational, and environmental performance (Melnik et al., 2003; Rao and Holt, 2005; Sroufe, 2003).

2.1. Perceptions of Sustainability

Grimstead (2010) posited that the global wine glut leads to a focus on cost reduction and initiatives to achieve competitive advantage of environmentally certified wines. There is evidence that capabilities for process innovation and implementation, central to deployment of EMS, are complementary assets that moderate the relationship between best practices and cost advantage, a significant factor in determining firm performance (Christmann, 2000).

Prior to the advent of new technologies (i.e., recycling, energy efficiency and self-sufficiency, Internet), it was difficult for SMEs to pursue cost advantages. Within the past 15 years smaller companies such as Cirque du Soleil, Trader Joe’s, and [yellowtail]® wine, have introduced high quality differentiated products for lower prices through innovative use of new technologies, whilst sustaining a cost advantage over rivals (Chan and Maubourgne, 2005).

2.2. Perceived Advantages of Implementing Sustainability

Implementing a sustainability strategy also can enable a company to create a unique or differentiated product, one which customers perceive as innovative or of higher quality in some way that is important to them, and which in turn allows the company to charge a premium price for its product or service (Hill and Jones, 2010). Previous results, mostly relating to large firms, suggest that some larger firms have difficulty in obtaining competitive advantages through environmental proactivity (Russo and Fouts, 1997; Sharma and Vredenburg, 1998).

For the smaller, more agile firm, however, doing so can generate a set of capabilities that facilitate certain innovations in product development (Gilinsky et al., 2010). Proactive environmental management can provide wineries with a competitive advantage via differentiation of their products (if the company's products are produced without lasting harm or environmentally-friendly) and by increasing the firm's reputation as a good corporate citizen. A consumer's trust in the winery and brand equity for the winery may increase when wineries adopt proactive environmental policies (Nowak and Washburn, 2002). Consumers may consider as unique or innovative those products that are sustainably produced and environmentally munificent (Porter and Van der Linde, 1995).

2.3. Location Impacts

Distinguishing their product based on the geographic origin of the grapes provides wineries opportunities for product and quality differentiation and resulting additional revenue (Thode and Maskulka, 1998). Researchers investigating wine producers from Spain facing survival and global competition found they should employ differentiation strategies through marketing the country origin or its organic nature (Bernabeu *et al.*, 2008).

3. HYPOTHESES

Continued progress toward sustainability at the individual business level depends largely on increasing the awareness of owners and managers about benefits to the environment (i.e., values). Managers that have strong environmental values can then infuse these values throughout the company (Marshall *et al.*, 2005). This leads to our first hypothesis.

H1: Location has no impact on adopting a business case for sustainability.

The costs of improving environmental performance can be offset by increased revenues (Klassen and McLaughlin, 1996). External certifications and product labeling can offer a potentially new basis of differentiation to attract environmentally oriented wine consumers. Costs stemming from materials waste and inefficient processes can be mitigated by firms that invest heavily in EMS. Several benefits have been associated with EMS implementation: innovations in terms of resource efficiency and pollution prevention as well as new quality control opportunities (Stegner, 2000). This leads to our second and third hypothesis.

H2: Location has no impact on justifying a business case for sustainability, as wineries that implement an EMS are more likely to have a perceived *cost advantage*.

H3: Location has no impact on justifying a business case for sustainability, as wineries that implement an EMS are more likely to have a perceived *differentiation advantage*, e.g. in terms of innovation or quality.

4. METHODS

To collect information on winery sustainability practices, e.g., sustainability defined, potential impacts, strategies, possible challenges and benefits, and the value in environmental practices, a survey instrument was designed based on an adaptation of a sustainable practices questionnaire for CEOs of Fortune 500 global businesses that had earlier been developed and tested by Berns *et al.* (2009). As the survey instrument was to be administered on-line via SurveyMonkey, 16 winery owners who attended the November 2010 Green Wine Summit in Santa Rosa, California, agreed to pre-test the survey in its web-based format upon receiving guarantees of anonymity. Minor adjustments were subsequently made to some questions to increase clarity and understanding and to somewhat reduce questionnaire length. Pre-test results were excluded from the final sample. The questionnaire was translated by the research team members in Italy and Spain. The survey opened in all countries in late November 2010, closing in late April 2011. Respondents were guaranteed anonymity; completed surveys were kept disguised by a number.

4.1. Survey Administration

For survey administration, we chose a single geographically defined sector in the United States (Northern California) and Italy (Tuscany) and Spain (Catalonia) to remove any possible distortion arising from peculiarities of different sectors or the biases that various regulations or national aid and subsidy policies, which governments and other agencies might introduce in other wine-growing regions across the globe. The researchers from each country separately compiled the results for later comparisons. We did not find any significant differences between the descriptive characteristics of the firms included in the study (location, activities and size when available) and the original population.

The U.S. research team emailed an invitation to participate in the survey to a convenience sample of 1,469 U.S. wineries, which was compiled from attendees at the annual Unified Wine and Grape Symposium in Sacramento, California. A second team of researchers in Italy simultaneously emailed an invitation to complete a translated version of the same survey to 758 wineries from a database of Tuscany (Italian) wineries, and the Spanish team sent a translated version to 760 wineries from a database of Catalonian (Spanish) wineries. Follow-up emails were sent two weeks and two months and one year later. We adhered to Dillman's (1991; 2000) mail and web survey methodologies, but the historically private nature of the wine industry as well as a lengthy question list (23 closed-end and ranking questions, using a Likert scale of 1–5) appears to have posed an obstacle to gathering a greater number of completed surveys in each country.

4.2. Response Rates

The United States and Italian research teams received 102 and 106 usable, completed surveys, respectively, while the Spanish team eventually received 52 completed surveys, for a total of 260 usable surveys. This translated into a response rate of approximately 7 percent for the United States sample, about 14 percent for the Italian sample, and about 7 percent for the Spanish sample, a range that is not atypical of mail surveys (Pullman *et al.*, 2010). Although this response rate was attenuated in comparison with more wide-ranging empirical studies, a number of recent published investigations into adoption of environmental management systems by firms in the food and wine sectors report similarly low response rates (Olsen and Thach, 2007; Martín-Tapia *et al.*, 2008; Pullman *et al.*, 2009). Non-response data were not collected for those respondents

who started to complete the questionnaire, but closed their browser; and no evident biases were observed from examination of the incomplete responses.

4.3. Sample Profiles

Demographics of the sample wineries in all countries were comparable. Over 75 percent of respondents' wineries were family-owned and family-managed. Although the question was asked, the Italian wineries declined to state annual case production, so comparisons among the three country samples based on firm size could not be made.

Company owners comprised roughly two-thirds of the respondents in each sample, most likely because these were small-to-medium firms. About four in ten wineries in each sample had been in business from 11 to 49 years (see Table 2). Unsurprisingly, the number of U.S. firms, aged 50+ years, was one-half that of Italian firms and one-third that of Spanish firms.

Table 2. Age of respondent firms

Age of winery, years:	USA			ITALY			SPAIN		
	n	Percent	Cum percent	n	Percent	Cum percent	n	Percent	Cum percent
100+ years	3	2.9%	2.9%	5	4.9%	4.9%	4	7.7%	7.7%
50 - 99 years	7	6.9	9.8%	18	17.5	22.3%	12	23.1	30.8%
11 - 49 years	46	45.1	54.9%	41	39.8	62.1%	23	44.2	75.0%
5 - 10 years	31	30.4	85.3%	28	27.2	89.3%	11	21.2	96.2%
< 5 years	15	14.7	100.0%	11	10.7	100.0%	2	3.8	100.0%
TOTAL	102			103			52		
<i>Declined to state</i>	<i>0</i>			<i>3</i>			<i>0</i>		

5. FINDINGS

Prior studies have shown that environmental values and personal satisfaction drive sustainability investment decisions (Gabzdylova *et al.*, 2009; Silverman *et al.*, 2005). Internal issues, such as the desire to be good stewards of the land or preserving the winery for future generations appear to be highly correlated with the successful implementation of environmental policies (see Table 3), although caution is advised in interpreting these results, inasmuch as the age of the winery may negatively correlate with managerial willingness to implement sustainable practices, often due to entrenched attitudes and cultural or familial resistance to change.

Table 3. Adopting sustainable practices.

	USA		ITALY		SPAIN	
	n	Percent	n	Percent	n	Percent
Willing to implement (1 = strongly disagree, 5 = strongly agree)						
No interest in adopting sustainable practices	4	4.0%	6	7.4%	5	9.6%
Never adopted sustainable practices, but might be interested	8	8.0%	21	25.9%	7	13.5%
Planning to adopt sustainable practices, but not ready yet	13	13.0%	18	22.2%	9	17.3%
Recently adopted sustainable practices	27	27.0%	19	23.5%	12	23.1%
Sustainable from the start	48	48.0%	30	37.0%	19	36.5%
Number of Respondents	100	100.0%	94	100.0%	52	100.0%
<i>Did not respond</i>	<i>2</i>		<i>12</i>		<i>0</i>	

A comparable percentage of respondents across the three countries indicated a 'clear business case for EMS,' thus support for Hypothesis 1. Very few respondents (fewer than six percent) across all three countries indicated their wineries had tried to implement sustainable practices and abandoned the effort (see Table 4).

Table 4. The business case for sustainable practices.

Business case/value proposition for sustainable practices	USA		ITALY		SPAIN	
	n	Percent	n	Percent	n	Percent
Yes	18	21.2%	17	25.4%	6	19.4%
No	48	56.5%	45	67.2%	12	38.7%
Unsure	14	16.5%	2	3.0%	2	6.5%
Have tried but too difficult to develop and continue	5	5.9%	3	4.5%	1	3.2%
Number of Respondents	85	100.0%	67	100.0%	31	100.0%
<i>Did not respond</i>	17		39		21	

We highlighted the top three desired EMS implementation tools for each country shown in Table 5. Of note is that “new techniques and methodologies” was a top three choice across all three countries. The respondents’ knowledge of or comfort level of six-sigma/LEAN manufacturing and understanding of LEED standards was such that these tools did not make the top three of any country.

Table 5. Desired tools to implement sustainability practices.

Desired EMS implementation tools (rated top 3)	USA		ITALY		SPAIN	
	n	Percent	n	Percent	n	Percent
New strategic frameworks and approaches	20	31.3%	18	48.6%	10	20.0%
High-level sustainability diagnostic tools	23	35.9%	5	13.5%	7	14.0%
Six-sigma / LEAN manufacturing	5	7.8%	0	0.0%	2	4.0%
Understanding of organic / biodynamic certification standards	15	23.4%	12	32.4%	7	14.0%
Understanding of LEED standards	11	17.2%	5	13.5%	6	12.0%
Financial tools to evaluate sustainability investments	28	43.8%	8	21.6%	4	8.0%
Expertise in a specific domain (clean tech, pollution prevention, government policy)	20	31.3%	13	35.1%	3	6.0%
External consulting services	6	9.4%	11	29.7%	1	2.0%
New techniques and methodologies	25	39.1%	18	48.6%	8	16.0%
Tools not important	2	3.1%	2	5.4%	1	2.0%
Don’t know/ other	11	17.2%	8	21.6%	1	2.0%
Number of Respondents	64	100.0%	37	100.0%	50	100.0%
<i>Did not respond</i>	38		69		2	

We highlighted the top three perceived benefits of sustainability strategies for each country shown in Table 6. Interestingly the top three for Spanish respondents were different from the top three for U.S. and Italian respondents, where there were similarities. Using the top three as indicators for Hypothesis 2 and 3 across all three countries, there would be non-support. Of interesting significance, the top perceived benefits for respondents from the U.S. and Italy are focused on cost reduction strategies, e.g., improving efficiencies and reducing or eliminating waste, while the Spanish respondents saw perceived benefits through differentiation by highlighting their sustainable efforts in product branding and improving their supplier and distributor relationships. Further analysis of respondent data may garner different results as each benefit is evaluated; results will be presented at the conference.

Table 6. Perceived benefits of sustainability strategies.

	USA		ITALY		SPAIN	
	Mean	n	Mean	n	Mean	n
<i>Building awareness of sustainability in the organization</i>	3.73	85	2.89	61	2.39	47
<i>Highlighting sustainability in company or product branding</i>	3.65	86	3.24	62	3.01	45
<i>Highlighting sustainability in the recruitment of employees</i>	2.80	85	2.39	62	2.26	48
<i>Highlighting or promoting sustainability in supplier and distributor relationships</i>	3.43	86	3.31	64	3.05	46
<i>Including sustainability in scenario planning or budget forecasts</i>	3.40	86	3.38	61	2.15	47
<i>Influencing government policies/regulations (e.g. product</i>	3.08	84	3.06	63	2.46	47

<i>content, packaging, etc.)</i>						
<i>Reacting to government policies/regulations (e.g. product content, packaging, etc.)</i>	3.25	85	3.17	60	3.21	48
<i>Reducing or eliminating carbon or greenhouse gas emissions</i>	3.48	84	3.57	61	2.35	46
<i>Reducing or eliminating toxicity of harmful chemicals</i>	4.11	84	4.02	61	2.56	46
<i>Reducing or eliminating waste by-products</i>	4.16	85	3.90	60	2.78	46
<i>Improving efficiency in packaging and closures</i>	3.80	84	3.38	63	2.69	46
<i>Improving efficiency in energy consumption</i>	4.26	84	3.77	62	2.21	47
<i>Improving efficiency by reducing waste by-products</i>	4.13	84	3.77	61	2.00	46
<i>Developing new sustainability-related business opportunities (e.g., clean energy solutions)</i>	3.49	83	3.48	61	2.78	46
<i>Designing processes or products for reuse and recycling</i>	3.87	84	3.64	61	2.41	45
<i>Other</i>	3.43	7	3.5	4		0
Number of Respondents		86		67		49
<i>Did not respond</i>		16		39		3

. 6 DISCUSSION AND FUTURE RESEARCH DIRECTIONS

Research relating to sustainability strategies adopted by the wine industry has shown mixed results in prior cross-country studies. Researchers in California and New Zealand found that external pressures had no impact on differences in the level of success wineries and vineyards achieve in implementing environmental practices (Silverman *et al.*, 2005). Researchers in Australia and France found significant differences between the two countries. Australian wineries rated themselves higher in growth strategy and perceived innovation environment than French wineries (Jordan *et al.*, 2007). More highly successful wineries in California and New Zealand perceive internal pressures to be greater than less successful wineries (Marshall *et al.*, 2010). Development of an EMS *may* be more likely to generate proactive, beyond-compliance initiatives on the part of New Zealand wineries, as opposed to reactive responses to new regulations or stronger enforcement of existing regulations (Dodds *et al.*, 2013).

One mechanism to increase such awareness among winery owners across the globe could be sharing of best practices of EMS, i.e. those that have a likely impact on decreasing production costs and/or increasing wine quality. Future investigations are needed to ascertain any longitudinal impacts of sharing best practices on sustainability and cost reduction and/or quality improvement. Future investigations of market sensitivity to environmental or sustainability issues and producers' attitudes and practices in other wine-growing regions in the United States, Italy, and Spain, as well as in countries, could prove fruitful.

Caution should be used in interpreting and generalizing these results. Limitations include the small number of respondents in comparison to the universe of wineries in these three countries; the inability to obtain external verification due to the anonymity of the respondents; and the reliance upon self-reported attitudes and practices. As performance measures developed for this study were adapted from Berns *et al.* (2009), other measures, including longitudinal variables — such as, payback periods and Returns on Investment in EMS (ROI) — could be employed. Timing of this investigation may have distorted perceptions of the importance of investment in EMS, as the wine industry had just weathered and was emerging from a global recession. Although the costs of implementing sustainability strategies may well be immediate and measurable for a winery, the benefits may be long term and thus difficult to assess using a cross-sectional methodology (Stegner, 2000).

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The Role of Event Marketing in Case of the Buda Castle Wine Festival

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ABSTRACT

◦*Purpose:* Wine events can support very efficiently the attraction of tourists to a certain destination. As one of the most important elements in tourism strategy wine tourism is crucial to introduce wines to the consumers. It is an effective method to improve the wine culture. The aim of the paper is to show the role of Hungary's largest and most important wine festival in the Hungarian wine culture as a key element of the wine tourism. We describe the consumers coming to the Festival, the information channels and how satisfied the domestic and foreign visitors are.

◦*Design/methodology/approach:* The paper is based on a continuous primary research work between 2004-2012 analysing more than 3700 questionnaires and secondary data between 1999 and 2003 from the Viniculture PBC and other secondary data from professional sources. The data was processed by Excel 2003, using ratios, distribution and cross tables.

◦*Findings:* The case of the Budapest Wine Festival shows that the well-organised and co-ordinated wine events can really affect domestic and foreign consumers and positively promote the Hungarian wine culture and products. During the last 13 years the visitor number increased from 30000 to 80000. These numbers support the concept that quality wines and events related to them are gaining more and more importance from the society. We can also conclude that the Festival visitors are from all over the world – 3 continents and 13 countries. In general both the Hungarian and the foreign visitors were satisfied with the Festival, there is a large amount of the visitors that come regularly to visit the festival.

Keywords: wine events, wine culture, wine tourism

1. INTRODUCTION

Wine events can support very efficiently the attraction of tourists to a certain destination. As one of the most important elements in tourism strategy wine tourism is crucial to introduce wines to the consumers. It is an effective method to improve the wine culture. With the concept of wine culture we meet quite often every day even though we are not professionals. This concept has changed a lot during the last 20 years in Hungary just like the role and elements of wine tourism. The **international trends** are more to observe in the Hungarian wine market. The ration of such consumers that prefer quality wines are more and more common in the Hungarian market. In influencing this segment's preference **wine festivals, wine fairs** have an increasing role in the tools of wine tourism. **Tokaj** is one of the leading wine regions in Hungary and has a great role to strengthen the image of the domestic wines through the concepts of wine marketing elements. The Tokaj producers have great responsibility – just like the other Hungarian wine producers – to re-engineer **wine culture**, quality wine consumption and increase the role of wine events. **Wine tourism** as an outstanding wine marketing element contains the wine festivals and wine fairs that are able to affect the entire wine culture positively and influencing the next generation's wine consuming behaviour. Besides this a great increase can be observed in the quality level of the wine festivals which is important to be seen as image creating factors to the Hungarian wine sector.

The **aim of the paper** is to show the role of Hungary's largest and most important wine festival in the Hungarian wine culture as a key element of the wine tourism. We describe the consumers coming to the Festival, the information channels and how satisfied the domestic and foreign visitors are. The **previous researches** of the Szent István University Gödöllő have already started in 1997 in the field of wine marketing. (*Papp, 2000*) The paper is based on a continuous **primary research** work between 2004-2010 analysing more than **3700 questionnaires** and secondary data between 1999 and 2003 from the Viniculture PBC and other secondary data from professional sources.

1.1. Briefly about the Hungarian economic circumstances

The economy of Hungary is a medium-sized, structurally, politically and institutionally open economy in **Central Europe** and is part of the European Union's (EU) single market. The economy of Hungary experienced market liberalization in the early 1990s as part of the transition from a socialist economy to a market economy, similarly to most countries in the former Eastern Bloc. Hungary is a member of the Organisation for Economic Co-operation and Development (OECD) since 1995, a member of the World Trade Organization (WTO) since 1996, and a member of the European Union since 2004. The **private sector** accounts for more than 80% of the Hungarian GDP. Foreign ownership of and investment in Hungarian firms are widespread, with cumulative foreign direct investment worth more than \$70 billion. Hungary's main industries are mining, metallurgy, construction materials, processed foods, textiles, chemicals (especially pharmaceuticals), and motor vehicles. Hungary's main **agricultural products** are wheat, corn, sunflower seed, potatoes, sugar beets; pigs, cattle, poultry, and dairy products. The economy showed signs of recovery in 2011 with decreasing tax rates and a moderate 1.7 percent GDP growth. In Hungary the **main industries** are as follows:

- Automotive industry (Audi, Mercedes-Benz, Suzuki)
- Electronics (Bosch, Videoton, Siemens, Samsung, Lear, Elektrolux)
- Pharmaceuticals
- ICT sector
- Food industry (Investing Guide Hungary 2013)
- *Tourism*

Tourism employs nearly 150 thousand people and the total income from tourism was 4 billion euros in 2008. One of Hungary's top tourist destinations is Lake Balaton, the largest freshwater lake in Central Europe, with a number of 1,2 million visitors in 2008. The most visited region is Budapest, the Hungarian capital attracted 3,61 million visitors in 2008. Hungary was the **world's 24th most visited country** in 2011. The Hungarian spa culture is world-famous, with thermal baths of all sorts and over 50 spa hotels located in many towns, each of which offer the opportunity of a pleasant, relaxing holiday and a wide range of quality medical and beauty treatments. In Hungary the tourism is one of the most important sectors and its potential is also promising in the long-run following the worldwide trend. The tourism has **several types** and in Hungary wine tourism as well as thematic tourism plays an important role (Lehota J., Szabó Z., Gergely A., 2010; Szabó Z., Komáromi-Gergely A., 2011) One of the most important wine regions in Hungary is Tokaj, which faces several challenges according to Szakal and Karpati (2009):

- The current position of Tokaj Wine Specialities in **gastronomy** and culture makes their frequent consumption difficult.
- The tourism developments of the given region would considerably **promote** the popularity of consumption on site. Conscious investments would enhance the weight of sale on site on the sales market of Tokaj Wine Specialities.
- The Austrian example shows that expertness in wine largely affects the sale of Tokaj Wine Specialities and similar products. Higher life standard also favourably influences the turnover of **Wine Specialities**.
- The current position of Tokaj Wine Specialities in gastronomy and **culture** makes their frequent consumption difficult.

Wine tourism and **wine events** are one of the most important ways to introduce wines to the consumers. It is an effective method to improve the wine culture. Tokaj is one of the leading wine regions in Hungary and has a great role to strengthen the image of the domestic wines through the concepts of wine marketing elements. The Tokaj producers have great responsibility – just like the other Hungarian wine producers – to re-engineer wine culture, quality wine consumption and increase the role of wine events.

On the basis of the consumers' demands and the supply, domestic wines comprise the major part of commercial turnover. Foreign wines are primarily distributed by the dealers to extend the assortment. Consumers know these wines less. (Szakál, 2008) **Wine tourism** as an outstanding wine marketing element contains the **wine festivals** and wine fairs that are able to affect the entire wine culture positively and influencing the next generation's wine consuming behaviour. Wine tourism also provides the chance for the domestic producers to gain international awareness and get **multiple chances** for feedback and to create direct relations with the target groups.

2. EVENT MARKETING

As a simple definition and concept according to Fazekas and Harsányi (2011) event marketing is contains organisation and such an activity which focuses on combining the brand message with a unique compelling and **remarkable experience**. Successful events have the following characteristics that **increase the experience** level such as involvement, interaction, immersion, intensity, individuality, innovation and integrity. (Wood and Masterman 2007) According to Pope and Voges (2000) the events help to increase the involvement level of the

participants so that they are more open to welcome the marketing messages and images related to the event than with any other communication methods. Events provide the possibility to the consumer to get **loyal** to the company, brand and the community of consumers. Garrison (2006) believes that marketing events and activities are the **most powerful** tools in communication.

Based on the above mentioned expert opinions and research facts the events provide **extraordinary potential** to the companies and associations like **Viniculture PBC** to reach high exposure and reach their multi-linked objectives such as **promoting wine culture**, gastronomy and a city like Budapest to domestic and tourist target groups.

2.1. Brief history of the Hungarian wine programs, exhibitions, fairs

The popular wine regions were set up in 1800. The county balls and casinos helped a lot to increase the wine consumption. (<http://www.badacsony.hu>) At the beginning of 1800 the Hungarian wines have won several prizes at international fairs and competitions (Paris, Hamburg, Rome, Vienna) basing and supporting the image of the domestic production. (*Siki-Tóth-Zsiga, 1997*) With the efforts of Széchenyi István and other Hungarian noblemen the first Hungarian General Agricultural Fair was organised in 1857 where there was an outstanding wine competition with 2001 samples. (*Siki-Tóth-Zsiga, 1997*) Only some professional exhibitions were allowed After World War II. by the leading party. (www.jgytf.u-szeged.hu) **The transformation** brought meaningful changes. Several associations started to work on developing the image of the Hungarian wine and wine sector and a strategic perspective started to be worked out within the concept of wine tourism. **The efforts of Viniculture PBC** during the last two decades accelerated and gave **extra possibilities** for the Hungarian wine sector.

3. THE BUDAPEST INTERNATIONAL WINE FESTIVAL

3.1. Methodology of the research

The primary research was done during the 13th-21th Budapest International Wine Festival between 2004-2012 in the Buda Castle, by random sampling at different parts of the festival. The research is based on a continuous research work between 2004-2012 analysing more than 3700 questionnaires and secondary data between 1999 and 2003 (Source: Viniculture PBC). The data was processed by Excel 2003, using ratios, distribution and cross tables.

The festival is more popular during the last years. The data is shown on Diagram 1. During the last 13 years the visitor number increased from 30000 to 80000 and it seems to be stagnating by now at that limit in 2012 as well. These numbers support the concept that quality wines and events related to them are gaining more and more importance from the society.

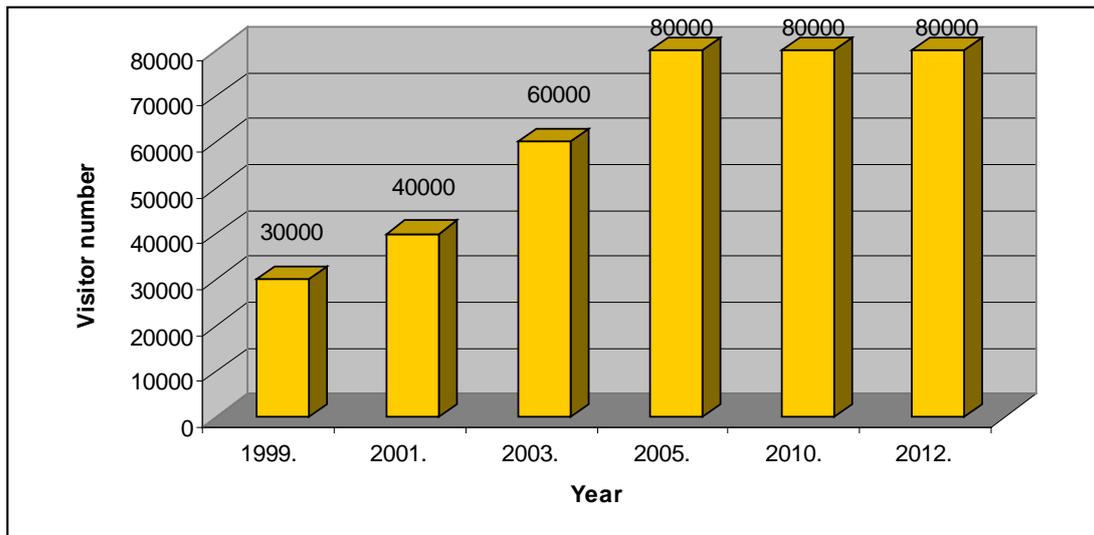


Diagram 1: Festival visitors between 1999 and 2012
Source: Own research and Viniculture PBC

3.2. Demographic characteristics of the sample

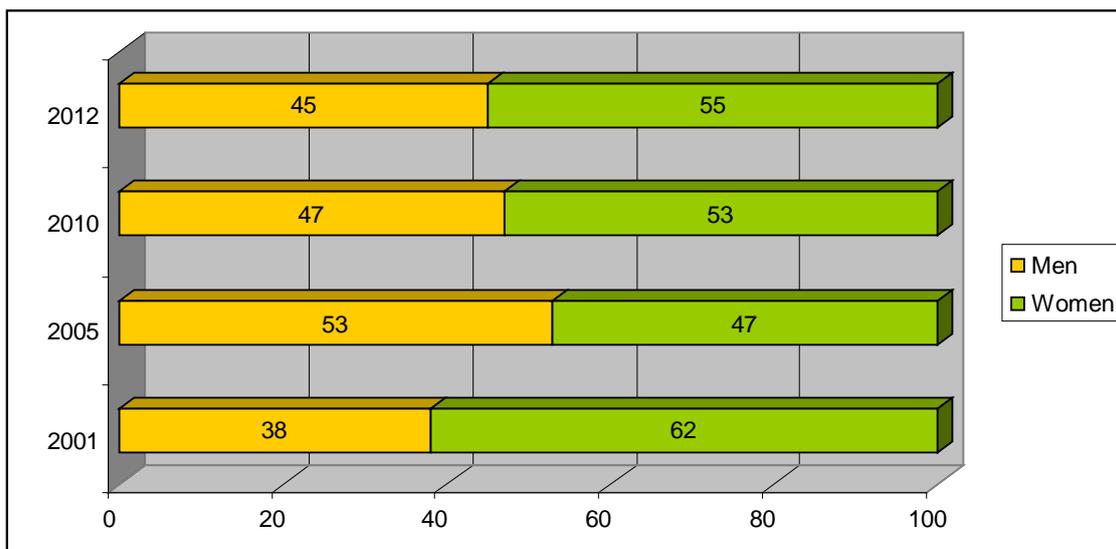


Diagram 2: Festival visitors by gender between 2001 and 2012
Source: Own research and Viniculture PBC

Based on Diagram 2 we can conclude that the ratio of male and female visitors is tending towards the 50-50 % equilibrium during the last years. This shows that the interest of the two genders towards the wine industry and the wines attracts the ladies just like the gentlemen.

About the age of festival visitors Diagram 3 shows the ratios. It can be seen that the people between 26-35 are the most stable group during the analysed time period with their approximately 30-33%, but the ratio of the other groups are changing and the smallest group is the one with the oldest visitors increasing.

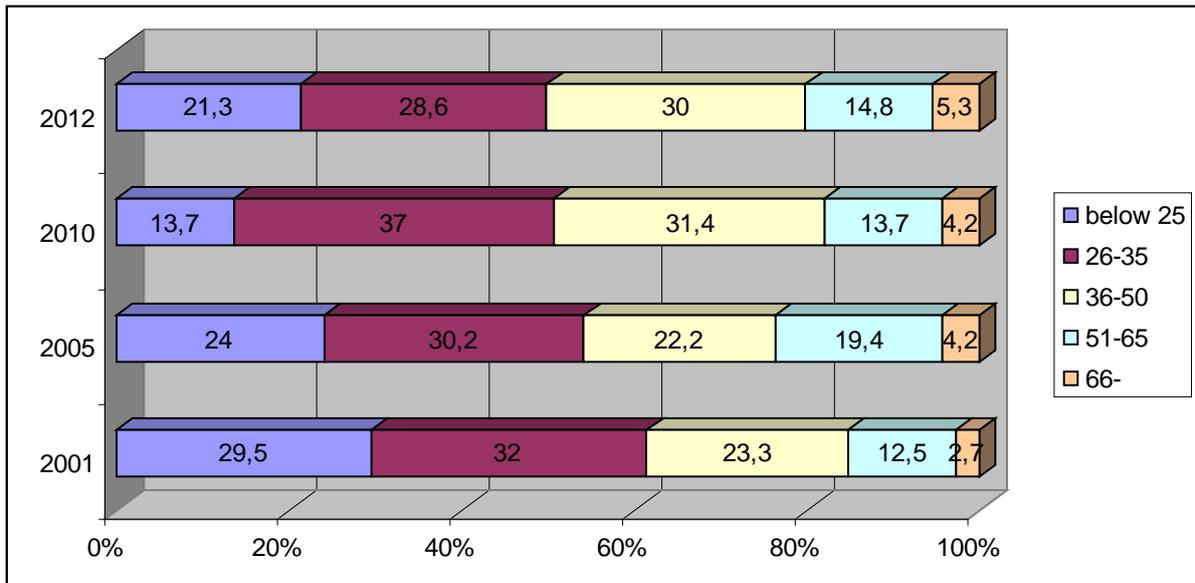


Diagram 3: Festival visitors by age in 2001, 2005, 2010, 2012 (%)
 Source: Own research, 2001-2012 and Viniculture PBC

Looking at Diagram 4 we can see that the largest portion of the visitors in the sample comes from Budapest. It is also to be seen that the ratio of the visitors from other places among the Hungarians is increasing. In 2001 it was only 27.22% and by 2008 it grew to 34%, which shows increasing interest from the countryside. The turning year is 2005 when the ratio of the countryside visitors grew by 8.19%. Between 2001 and 2008 the ration of the visitors from Budapest decreased by 6.78%. These data show that the Festival tends to be more like a country-wide event then before. In 2012 the Festival had more participants from other places then from Budapest. The research shows that the most of the foreign visitors came from the USA, Austria, Great Britain and Spain. We can conclude that the Festival visitors are from all over the world – 3 continents and 22 countries.

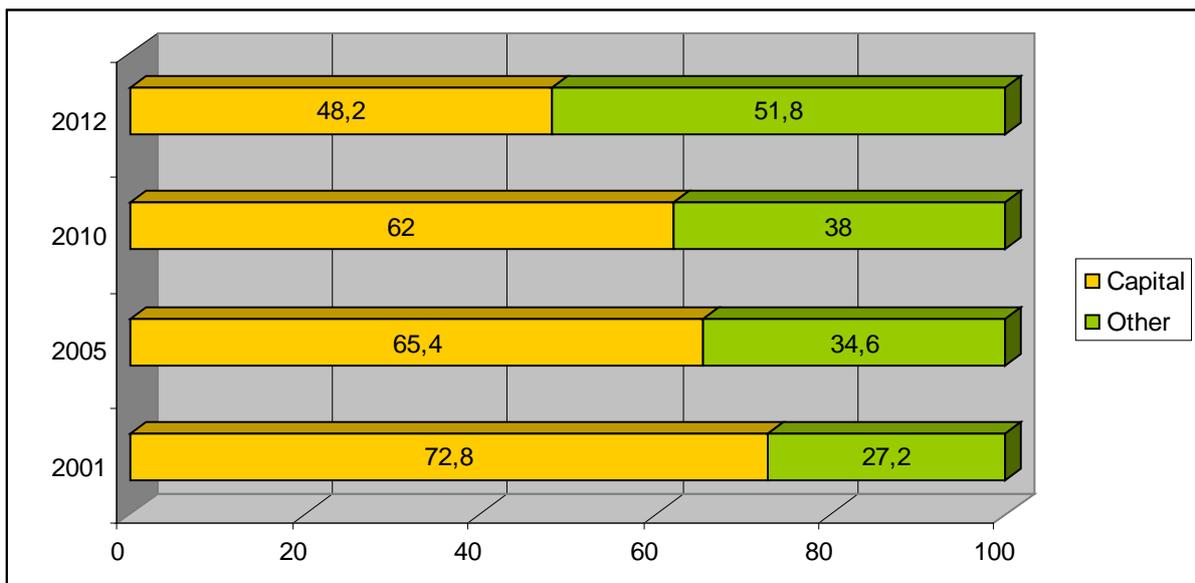


Diagram 4: Ratio of the visitors form the capital and other places in 2001, 2005, 2010 and 20102 (%)
 Source: Own research, 2001-2012 and Viniculture PBC

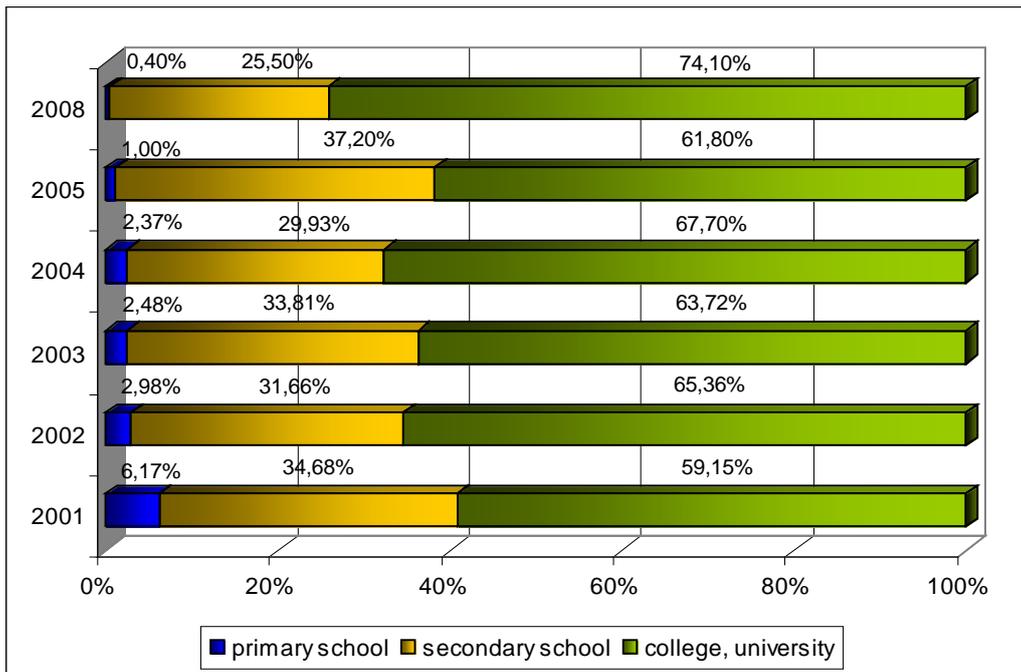


Diagram 5: Ratio of the visitors by education in 2001, 2003, 2005 and 2008 (%)
 Source: Own research, 2001-2008 and Viniculture PBC

During the analysed time period the majority of the festival visitors had higher education and the ratio of the primary education has been decreasing from 6.17% to 0.4%, which means that almost nobody from this group visits the Festival. The ratio of the secondary education has also been decreasing between 2001 and 2008 by 9.18%. On the other hand the ratio of the higher education reached more than 74% by 2008. This trend is clear to be seen and based on this we can conclude that the Festival tends to serve the people with higher education mostly and the target group is getting more visible. In 2010 and 2012 we distinguished still learning and in 2012 PhD/MBA categories to get more detailed view of the sample and we saw that this is meaningful in the sample with 7% and the still learning is a growing segment. (Diagram 5 and 6)

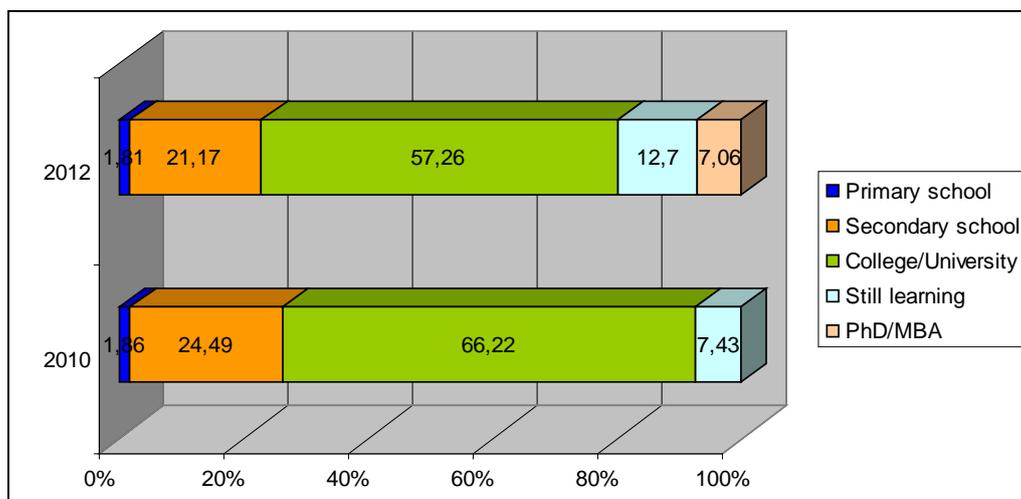


Diagram 6: Ratio of the visitors by education in 2010 and 2012 (%)
 Source: Own research, 2010-2012

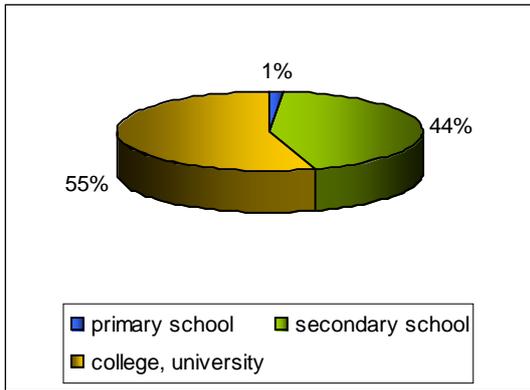


Diagram 6: Hungarian visitors by education in 2005

Source: Own research, 2005

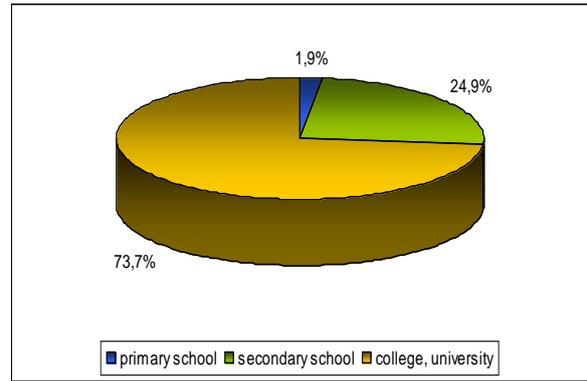


Diagram 7: Hungarian visitors by education in 2010

Source: Own research, 2010

Between 2005 and 2010 the change in the ratios is even more dynamic. The higher education ratio grew by 19% (Diagram 6 and 7) and what we can see on Diagram 9 and 10 is that the ratios have changed in the case of the foreign visitors as well.

Based on the data from 2005 we can conclude that the ratio of higher education is much higher – by 35% - in the foreign sample, in 2010 only 8% is the difference and the Hungarian sample has almost reached the foreign one. These facts also confirm the relation between higher education and better wine quality. (Diagram 8 and 9)

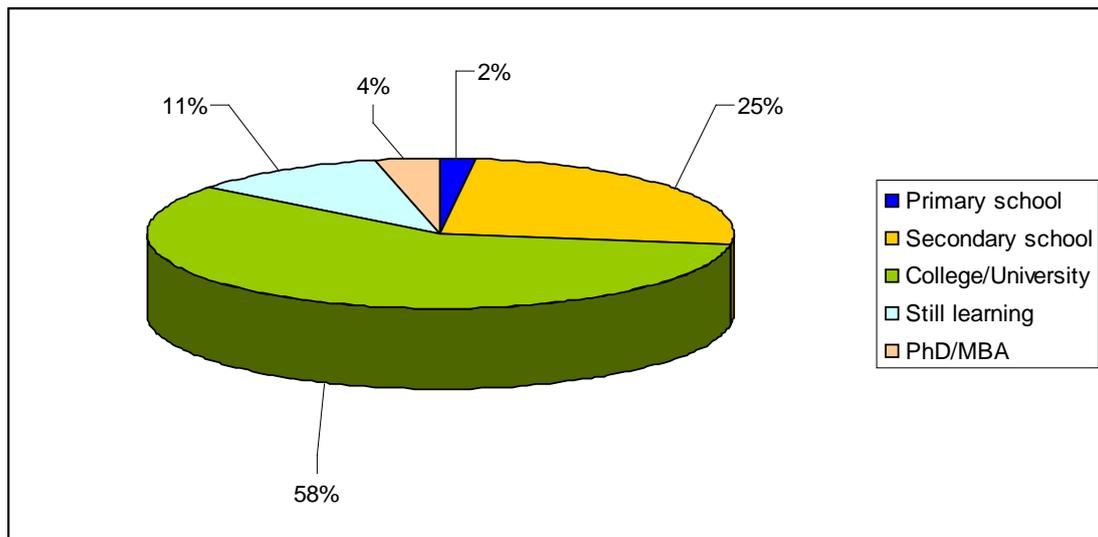


Diagram 8: Hungarian visitors by education in 2012

Source: Own research, 2012

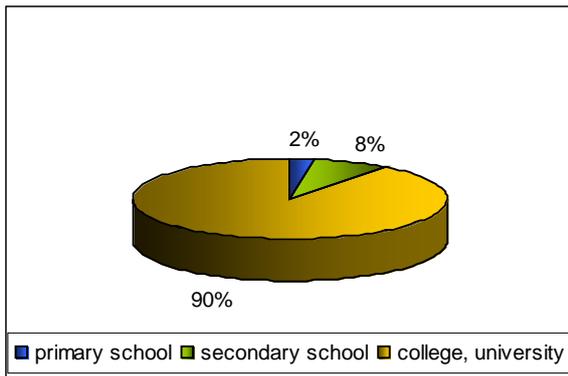


Diagram 9: Foreign visitors by education in 2005

Source: Own research, 2005

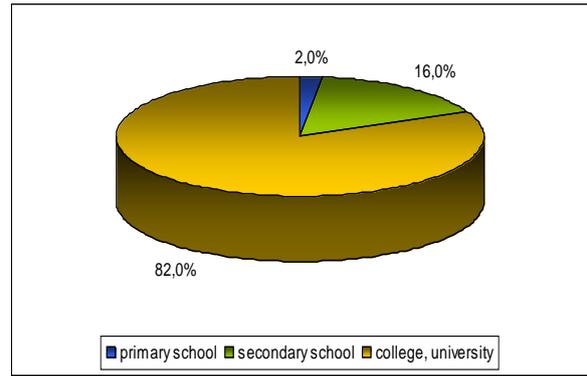


Diagram 10: Foreign visitors by education in 2010

Source: Own research, 2010

In 2012 the ratio became extreme in case of the foreign visitors for 94% belonged to higher education including still learning people. (Diagram 11) The Hungarian sample in 2012 remained the same compared to 2010 with 27% secondary or lower education ratio. (Diagram 8) We can observe significant difference in the PhD/MBA ration between the two parts of the sample where the foreign data show 21% and the Hungarian only 4%.

We can state that in case of foreigners the interest to the Buda Castle Wine Festival is highly related to higher education level.

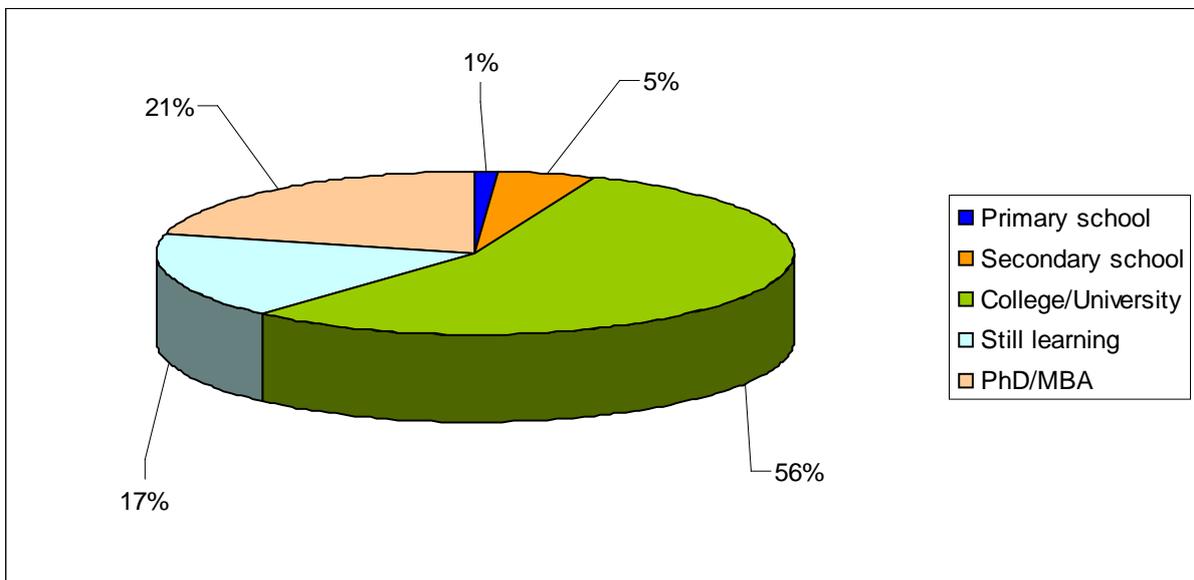


Diagram 11: Foreign visitors by education in 2012

Source: Own research, 2012

3.3. Frequency of visiting the Budapest International Wine Festival

We can see that about 50% of the visitors are first timers at the festival. The turning point was 2004 when this ratio was 60%. We can also observe that the ratio of the ones visiting the Festival several times has increased by 5% between 2005 and 2010 (Diagram 12 and 13), but compared to 2004 this change is even greater 12%.

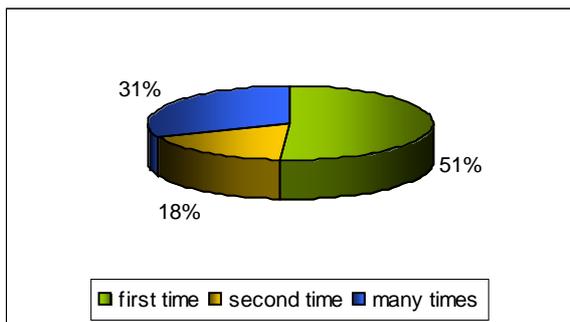


Diagram 12:
Visit frequency on the festival in 2005
Source: Own research, 2005

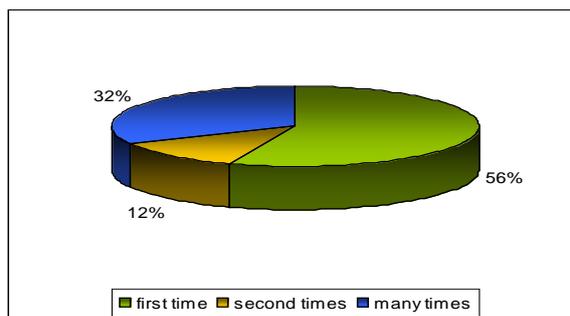


Diagram 13:
Visit frequency on the festival in 2010
Source: Own research, 2010

In the case of the Hungarian visitors the first timers' ratio is about 40%, but the one with the several times visit is much higher than the average, it is 43% in 2008 which was growing 5% compared to 2005.

The first timer frequency is obviously higher in the case of the foreign visitors. The data show that 90% of them came first time to the Festival in 2008, and only 7% was regular visitor. Similar data were observed in 2010 as well.

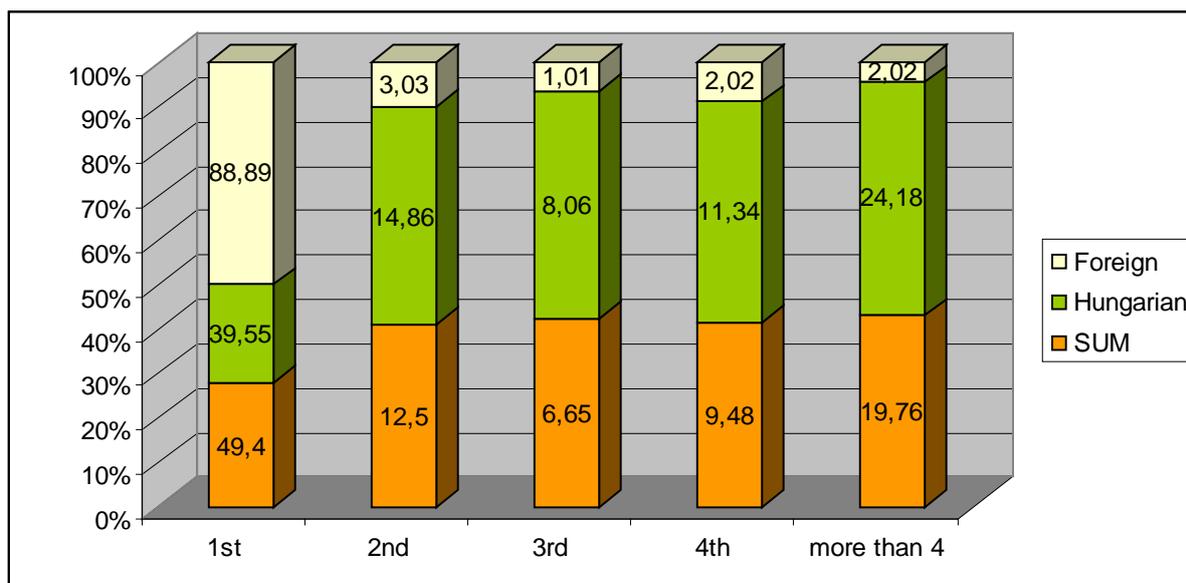


Diagram 14:
Visit frequency on the festival in 2012
Source: Own research, 2012

In 2012 the ratios are similar (Diagram 14) but it is crucially important that even in the case of the foreign visitors the average visit number is 1.23 and for the Hungarians it is more than 3%. This shows the results of a continuous focused work and the old marketing rule that the keeping the regular customers is a winning concept in case of wine events as well even in the 21st century.

4. CONCLUSIONS - SATISFACTION ABOUT THE BUDAPEST INTERNATIONAL WINE FESTIVAL

In 2005 the visitors were mainly satisfied with the speed at the cash registers, the number of the information desks, the arm band system and catalogue. They were less satisfied with the tasting ticket system and the least satisfied they were with the signs.

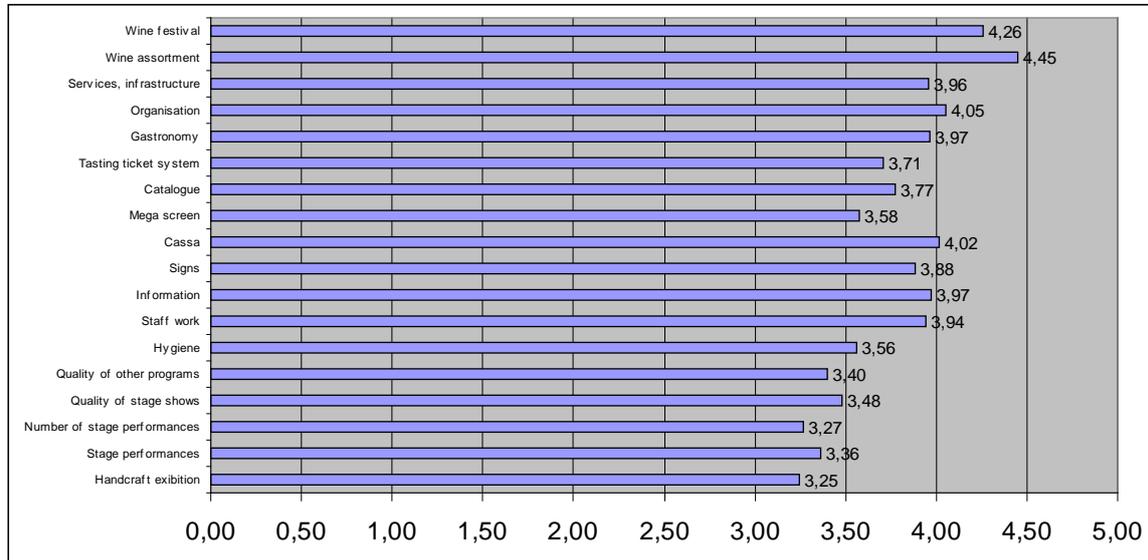


Diagram 15: Satisfaction of the Festival visitors with the festival in 2012

Source: Own research, 2012

In 2008 the Hungarian visitors liked the most the staff work, information desks, arm band system and the speed at the cash registers which is very similar to the situation in 2005. The most important changes are in the rankings. Each mentioned factors were above 4.2 where 1 was the worst and 5 the best mark. They were not satisfied with the price levels of the programs, but they gave 4.23 for the Budapest International Wine Festival in general which was the highest compared to the previous Festivals. In 2010 the Hungarian visitors were mainly satisfied with the wine offer. The **in-general-satisfaction** remained almost the same which also point out the permanent positive and good **image creation** capability of the Festival as a wine tourism event. The foreign visitors gave higher marks in 2008 which show that they were even more satisfied with the Festival than the Hungarians. For the factor the Wine Festival in general they gave 4.5. They were much more satisfied with the gastronomy and we can state that the Festival organisers chose an obviously successful strategy and this is realised in the data as well. In 2010 they were similarly most satisfied with the wine offer and it is crucially important from the image creation point of view towards abroad. In 2012 with lower level the Wine Festival in general got 4.26 and wine assortment was winning with 4.45 points which is the highest during the last years. Additionally the payment system was appreciated with 4.02 points. (Diagram 15)

Viable wine tourism concept and its implementation at regional level is needed to be developed in order to generate positive picture and feelings about the Tokaj wines and wines from Hungary. In general both the Hungarian and the foreign visitors were satisfied with the Festival, there is a large amount of the visitors that come regularly to visit the festival. To sum it up we can conclude that the Festival has fulfilled its objective to provide possibility for wine producers from Tokaj and all the regions of the country to meet the consumers and generate positive image for the Hungarian wine sector just like to Hungary.

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**Customer Engagement: A comparison between
Australian and French Wine Events**

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Abstract:

◦ *Purpose: Given the popularity of Branded Marketing Events (BMEs) in the wine industry, this paper investigates their ability to facilitate customer brand engagement for the hosting wine brand, and consequently increase customer brand purchase intentions. An understanding of the influence of BMEs is investigated from a cross-cultural perspective, comparing the wine sectors and consumer wine culture within Australia (new world wine) and France (old world wine).*

◦ *Design/methodology/approach: A survey was conducted in Adelaide, Australia, and Bordeaux, France, at various wine related events. Event attendees were recruited to report on their perceptions regarding experiential components of the event, their level of engagement with the hosting wine brand, and their resulting brand purchase intentions.*

◦ *Findings: BMEs were found to significantly influence customers' brand engagement and brand purchase intentions in both Australia and France. However, the experience components within the events were found to have differing effects. Australian customers are influenced by cognitive, sensory, and relational components of events, and their increased engagement strongly influences their brand purchase intentions. French customers, however, require pragmatic event experiences to effectively build brand engagement. Their brand purchase intentions are increased by engagement, although not to the same extent as Australian customers.*

◦ *Practical implications: With an understanding of the experiential components of an event that drive customer brand engagement within these two cultures, wine brands can tailor their events to ensure these experiential components are present, which will lead to a more engaging event experience, with positive brand outcomes.*

Key words: wine events, engagement, experience, marketing events, experiential marketing

1. INTRODUCTION

Many wineries host Branded Marketing Events (BMEs) with the intention of engaging customers with their brand through experiential marketing. The interactive nature of these events is considered to engender a psychological state of engagement with the wine brand, hence enhancing loyalty, satisfaction, and commitment to the brand (Brodie, Ilic, *et al.* 2011). It is also expected, and hypothesized in this study, that an enhanced state of engagement will lead to increased brand purchase intentions (Bowden 2009; Hollebeek 2011). However, little is known about which aspects of the experience further the customers' engagement with the brand. To gain a more comprehensive understanding of BMEs, this study empirically investigates the ability for the various experiential components of a BME to facilitate customer brand engagement, and subsequent brand purchase intentions.

The wine industry is unique, in that consumer wine culture and industry structures vary considerably between countries. These differences are certainly highlighted when comparing Australia (a new world wine country) to France (an old world wine country). Australian consumer 'wine culture' is still developing, and, for many, wine is not considered to be a 'part of life'. French wine culture, conversely, is rich in history and deeply embedded within general French culture. The Australian wine industry is dominated by a small number of large wine brands, with over two thousand small wineries competing for the remaining market (Winebiz 2013). While wine regions in Australia do carry some importance and indicate quality of particular wine varieties, it is the individual wine brand that is predominantly marketed, and identified by the consumer. The French wine sector which contains more than three hundred wine appellations (FranceAgriMer 2013) and about fifteen wine regions includes thousands of small wineries. The complexity of this structure, which is due to a long history of wine making in France, explains why the wine estate is considered as the home of the brand - the old world wine (Bouzdine-Chameeva, Faugère, *et al.* 2013). However consumers do not generally identify with individual wineries, but more with wine regions (e.g. Bordeaux, Alsace or Champagne) or wine growing areas within these regions (e.g. Saint-Emilion or Medoc in the Bordeaux wine region).

Despite these considerable cultural and industry differences, wine-related branded marketing events are common in both countries. In considering the impact of BMEs, it should be investigated whether the BME experience impacts on Australian and French wine consumers in the same way. Given the differences in how consumers identify with a brand (i.e. individual wine brand vs. wine region/sub-region), whether customer brand engagement is facilitated in a similar manner and ultimately has the same influence on brand purchase intentions.

This paper will first review the extant literature on branded marketing events and customer engagement, followed by an outline of research hypotheses and conceptual framework. The method section will identify aspects of the research and survey design, measurement items, and report on the reliability and validity of these measures. The results from both the Australian sample and French sample will be discussed in a results section, and the paper will conclude with a general discussion, managerial implications and limitations of the study.

2. LITERATURE REVIEW

2.1 Branded Marketing Events

The foundation for the concept of Branded Marketing Events, lies within the marketing events literature (Drengner *et al.* 2008; Whelan & Wohlfeil 2006) and also draws from the broader literature area of consumer experience (Brakus *et al.* 2009; Gentile *et al.* 2007; Schmitt 1999). While marketing events are "a communication tool whose purpose is to disseminate a company's marketing messages by involving the target groups in experiential activities"

(Drengner *et al.* 2008 p138), there is little consensus regarding the definition of BMEs (Close *et al.* 2006; Drengner *et al.* 2008; Wohlfeil & Whelan 2006; Wood 2009). While sponsorship and community events are often considered to be a type of BME (Close *et al.* 2006), this is debated on the basis that these events exist for some other purpose but are used later for marketing (e.g. sponsorship events), have some marketing application, or are primarily developed for other reasons (e.g. community festivals). Unlike Branded Marketing Events, customers at sponsorship events or festivals do not *necessarily* interact with the brand in the event space.

This paper provides a definition of BMEs that recognizes the necessity for customers to interact with the brand at the event. This builds on the BME literature (Drengner *et al.* 2008; Whelan & Wohlfeil 2006) and the consumer experience literature (Brakus *et al.* 2009; Gentile *et al.* 2007; Schmitt 1999), but also captures the nature of dynamic interactions considered in contemporary marketing fields (Vargo and Lusch, 2004; Brodie, Hollebeek, *et al.* 2011). We define Branded Marketing Events (BMEs) as “*an experiential activity initiated by a brand that serves as a platform for customers to interact with the brand and each other*”. These events are often held with the explicit purpose of creating a unique, interactive, brand-related experience that facilitates engagement with the brand.

We conceptualise BMEs by considering the key aspects of a consumer experience. However, previous studies investigating consumer experiences have typically examined product-related experiences (Gentile *et al.* 2007), or with reference to experiential (product) brands (Brakus *et al.* 2009). It is widely recognised that an event falls within the plethora of consumer experiences (Gentile *et al.* 2007; Schmitt 1999), and as such we utilise consumer experience measures to capture a BME experience. We use the experience ‘types’ indicated by these studies to measure the types of experiences initiated during a BME. The measure developed by Gentile *et al.* (2007) was selected as it provided a good depiction of social elements (Schmitt 1999), as well as cognitive aspects (Brakus *et al.* 2009). Consistent with our conceptual lens, the authors’ also recognise that customers actively create the experience, rather than passively receive the experience from a company (Gentile *et al.* 2007 pg 396).

Four components of the consumer experience were identified as relevant to the BMEs incorporated in this study; sensorial, cognitive, pragmatic, and relational (Gentile *et al.* 2007). Table 1 outlines the definitions of each experiential component, and identifies examples of winery BMEs that demonstrate these components.

Sensorial component	Experiences that aim to provide positive sensory stimulation, addressing sight, hearing, touch, taste and/or smell. <i>Example: Wine and food event, music event.</i>
Cognitive Component	Experiences that stimulate thought or conscious mental processes. <i>Example: Wine education sessions, food/wine pairing, winery tours</i>
Pragmatic component	Experiences that involve physical action – “the practical act of doing something”. <i>Example: ‘Make your own wine blend’ events</i>
Relational component	Experiences that provide social context, relationships with others, or expression of one’s ‘ideal self’. (<i>An inherent component of any winery event that caters to numerous customers.</i>) <i>Example: Events that project a ‘wine enthusiast’ image, or means of entering an in-group of wine connoisseurs</i>

Source: Definitions adapted from Gentile *et al.* (2007)

2.2. Customer Brand Engagement

Customer Engagement is defined as “the intensity of an individual’s participation in and connection with an organization’s offerings and/ or organizational activities, which either the customer or the organization initiate” (Vivek *et al.* 2012 pg 127). This definition of customer engagement recognizes that either the customer or the provider (the wine brand) initiates engagement, but it highlights the need for an interaction between the focal object (i.e. the wine brand) and the customer. In this regard, customer engagement comes about from the connection that individuals form with the brand, based on their experiences at the BME (Vivek *et al.* 2012). Although Vivek *et al.* (2012) recognize that providers may initiate activities or events to engage customers, they do not explain how the nature of interaction with the event facilitates customer brand engagement.

Engagement is most commonly conceptualized as a state of activation, with cognitive, affective, and behavioural elements (Brodie, Hollebeek *et al.* 2011). It is a heightened-state of connectedness with a brand, where consumers are motivated to interact with the brand, create value, and develop strong brand connections. In contrast, the literature on brand experience does not presume a psychological state; it can include experiences in which the consumer shows little interest or connection with the brand (Brakus *et al.* 2009). By examining wine events from an engagement perspective, wineries must not only focus on facilitating an experience, they must ensure that this experience elicits a heightened motivational state for the customer, in order for it to be truly effective. Therefore, the key driver of success of a BME lies in those activities that create customer engagement.

A customer who participates at a BME will demonstrate engagement when they interact with other attendees, experiential cues within the BME (music, food, wine tastings) and/or communicate with winery sales staff. By interacting within the experiential event, they create an experience that is of most relevance to them, and therefore gain the most value from the experience. Customers interact with the brand and with other customers; they are not passive during the experience – firms merely provide a platform through which customers create their own unique value in the experience (Brodie, Hollebeek, *et al.* 2011).

A key element of engagement is that it is a ‘momentary state’ (Brodie, Hollebeek, *et al.* 2011, pg 255). Engagement levels at the onset of the process (or beginning of the event) typically are relatively low; however, they develop over time as the individual interacts with the event, and individuals at the event, and hence the level of engagement increases over the course of these interactions (Brodie, Hollebeek, *et al.* 2011). This heightened state is momentary; the BME is provided as a platform to facilitate value from the experience and engagement with the brand, however the length of time this heightened state of engagement persists is unknown, and it is expected to dissipate after the event.

3. CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

An ‘experience’ is recognised as an “environment in which the brand is marketed or sold (e.g. events)” (Brakus *et al.* 2009, pg 53). While extant literature recognises that customers engage with the event itself (Bowden 2009; Vivek *et al.* 2012), it is the interaction with the brand within the event space that facilitates brand engagement. BMEs elicit active engagement between the customer and the brand through an experiential approach, and thus have far greater effectiveness than traditional marketing (Holbrook & Hirschman 1982). Previous research on BMEs has overlooked the active participation of the target group in the communication of the marketing message (Drengner *et al.* 2008). However, taking a Service Dominant Logic theoretical lens, the highly experiential and contextual nature of value co-creation is emphasised (Brodie, Hollebeek, *et al.* 2011; Vargo & Lusch 2004). Therefore, when

considered this way, it is evident that BMEs are an effective platform for a company to interact with customers, engage them, and co-create value in the experience with them. A BME is an effective means of engaging customers for the purpose of co-creating value, as it is completely interactive and subjective in nature. The engagement stems from the meaningful experience at the BME (Calder *et al.* 2013). Events are an effective tool for implementing the experiential marketing perspective; but as well as this, events have the capacity to achieve engagement between the customer and the brand, that cannot be matched by other traditional media tools (Brodie, Hollebeek, *et al.* 2011).

A cognitive experience is one that requires the participant to actively think, or aims to build on a particular area of interest or knowledge. The 'wine connoisseur' actively seeks information about wine brands, regions, varietals, production processes; events that provide in-depth information are of great interest to these customers. This cognitive experience fulfils the customer's need for wine knowledge and brand/region related information. The sharing of information gives the wine connoisseur a greater wine knowledge, and creates a closer connection with the brand. The intrigue and stimulation created through a cognitive experience will encourage the customer to interact more with the wine brand and create a greater sense of engagement.

H1a – Cognitive experience contributes to the Australian customer's brand engagement

H1b – Cognitive experience contributes to the French customer's brand engagement

A sensory experience is one that combines multiple senses (sight, sound, taste, and smell). Wine consumption is strongly related to leisure activity and aesthetic consumption (Charters & Pettigrew 2005), in particular music and food. Events that include activities such as wine and food pairing, or tasting wines while listening to live music, can create a powerful and memorable experience and encourage customers to interact and engage with the brand.

H2a – Sensory experience contributes to the Australian customer's brand engagement

H2b – Sensory experience contributes to the French customer's brand engagement

A pragmatic experience requires physical behaviours or actions from the customer. With the focus of a BME being on the brand, in most instances the customer interacts and engages with the brand itself. Many wineries now invite their customers to participate in certain production processes, to provide them with a closer connection to the wine and how it is made (e.g. winery tours, wine stumping, or customers making their own individual wine blend). The physical, 'hands on' nature of the experience immerses the customer and draws great attention to the brand, enhancing the customers overall brand engagement.

H3a – Pragmatic experience contributes to the Australian customer's brand engagement

H3b – Pragmatic experience contributes to the French customer's brand engagement

Wine consumption is commonly associated with a social experience, and in particular wine events are usually held within in a social setting. People often attend wine-related BMEs with others, whether it be friends, family or acquaintances. In addition, events are usually public and attended by many people, and so the entire experience occurs within a social context. Strategic BME organisers utilize this social setting to ensure that a customer's interaction with the brand causes them to look good in front of their peers. This has an impact on their motivation to further engage with the brand, giving it more attention, interacting further with the brand and being more emotionally engaged with it.

H4a – Relational experience contributes to the Australian customer's brand engagement

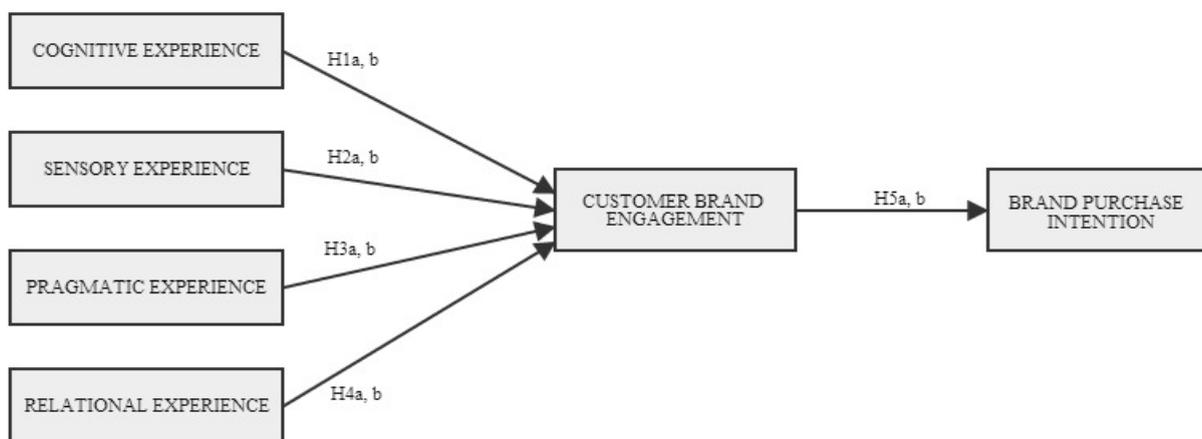
H4b – Relational experience contributes to the French customer's brand engagement

The notion that customer brand engagement enhances a customer’s predisposition towards a brand and hence increases purchase intention has been espoused in recent literature (Bowden 2009; Hollebeek 2011). The increased mental and emotional stimulation, as well as the behavioural interaction that occurs between customer and the brand is thought to predispose the customer to future purchases. However, as engagement is considered context-dependent and not necessarily an enduring state (Brodie, Hollebeek, *et al.* 2011), whether the brand engagement persists until purchase is questionable. Despite these previous assertions that customer brand engagement facilitates brand purchase intentions, this relationship is yet to be examined empirically.

H5a – Positive relationship between Australian customer brand engagement and purchase intention

H5b – Positive relationship between French customer brand engagement and purchase intention

Figure 1: Conceptual Framework and Hypotheses



4. METHOD

4.1. Research Design

A quantitative research design with a survey instrument was deemed most suitable to meet the objectives of this study. Following a brief introduction, respondents were first asked to indicate their perceptions of the various experiential components of the event. Then the level of engagement towards the brand was established by asking questions about their cognitive (attention), emotional (enthusiasm) and behavioural (interaction) perceptions of the wine brand/region that hosted the event. Purchase intention questions were then posed to establish the level to which the respondent would actively search for, and purchase, wine from that winery or wine region. The survey concluded with questions relating to demographics of the respondent.

A pre-test of the questionnaire was first conducted with a 220 students attending events at an Australian university. Pre-test participants were asked to complete the survey online, and provide feedback on any difficulties they faced (Page & Meyer 2000; Zikmund 2003). The main data collection used the same survey structure, and included minor wording adaptations to be specific to each event name and wine brand or wine region. The questionnaire was translated to French for the Bordeaux study, and then back-translated to English to check for consistency of wording.

4.2. Sampling

Wineries in Adelaide, Australia and Bordeaux, France that run BMEs for their customers were invited to participate in the study, based on the applicability of their event to this study (i.e. the event fitted the description of a BME) and ensuring diversity of event experiences (e.g. music

oriented, degustation, educational, social events). A total of 10 events held by 6 wine brands in Adelaide were included in the study. Wineries were located in the Barossa, McLaren Vale and the Adelaide Hills, and included 3 music concerts, a winery picnic, a silent auction, and various food-related events (e.g. 2 food and wine pairing events, meet the winemaker dinner, harvest celebration lunch, wine series launch dinner). In Bordeaux, the data collection process embraced the famous wine estates located in 5 different sub-regions (Saint-Emilion, Saint Julien, Entre-deux-Mers, Sauternes, Graves): wine tasting and wine tours, 3 exhibitions and 2 concerts in wine cellars and wine bars, and gastronomic dinners in a restaurant which is well-known in the area for an excellent wine collection and direct relations with wine producers. Researchers attended the events; in Adelaide, event attendees were recruited by the researcher asking for emails to send the survey online; in Bordeaux, event attendees were asked to complete the survey during or immediately after the event through printed surveys.

274 completed surveys were collected in Adelaide and 177 completed surveys in Bordeaux. 98% of respondents of the Bordeaux survey were French residents (1 respondent from Bolivia and 2 from Sweden), and 95% of respondents to the Adelaide survey were Australian residents (1 respondent from Austria, China, Ireland, New Zealand, and the US; 8 respondents from the United Kingdom). It was important to capture a high number of responses from Australian and French nationals, in order to compare results and investigate cultural impact.

4.3. Measurement

All multi-item variables (outlined in Appendix Table 2) were adopted from existing literature and measured using a seven-point Likert scale. Existing scales were adapted for this study, including measures of cognitive, sensory, pragmatic, and relational experiential components (Chang & Chieng 2006; Sweeney & Soutar 2001), engagement dimensions of cognitive (brand attention), emotional (enthusiasm) and behavioural (interaction) (So *et al.* 2012), and purchase intentions (Leroi-Werelds & Streukens 2011; So *et al.* 2012).

It should be noted that the conceptualisation of engagement presented in this research is different to that of So *et al.* (2012), who operationalize engagement as a 5 dimension construct (attention, identification, absorption, enthusiasm, interaction). This study follows a 3 dimension conceptualisation of engagement, which is consistent with extant literature on engagement (Brodie, Hollebeek, *et al.* 2011). The cognitive, emotional, and behavioural dimensions are generally considered the most comprehensive conceptualisation of engagement (Brodie, Hollebeek, *et al.* 2011), and as such, were utilized in this study.

To ensure reliability and validity of multi-item constructs, one-factor congeneric measurement models were tested using AMOS 20 prior to the evaluation of a comprehensive measurement model (Australian data: $\chi^2_{(1)} = 471.75$, $df = 180$, $p = 0.00$, $GFI = .86$; $AGFI = .84$, $CFI = .94$, $NFI = .90$, $RMSEA = .077$) and (French data: $\chi^2_{(1)} = 458.62$, $df = 160$, $p = 0.00$, $GFI = .81$; $AGFI = .74$, $CFI = .84$, $NFI = .78$, $RMSEA = .10$). All variables show Cronbach's alphas of at least 0.80 (Australia) and 0.63 (France) as well as high composite reliability scores (Fornell & Larcker 1981). Convergent validity was confirmed with the average variance extracted exceeding 0.5 and Discriminant validity was examined with all average variance extracted (AVE) scores exceeding the square of the correlations between constructs (Fornell & Larcker 1981; Hair *et al.* 2012). These results are presented in the Appendix Table 4.

Given the complexity of the model and the limited sample size, composites were computed for each construct for further analysis using a three-step approach (Rowe 2002). After testing one-factor congeneric measurement models for all multi-item constructs (step one), factor score regression weights provided by AMOS 20 were used to create a proportionally weighted scale score for every item (step two). The final composite scores were then computed in SPSS 20 (step three), as each proportionally weighted scale score was multiplied by the data column of

the respective item (Rowe 2002). The composite of engagement was calculated as a first-order reflective second order formative construct comprising brand attention, brand enthusiasm and brand interaction.

5. RESULTS

5.1. Australian Results

To further our understanding of the influence of BME experiences on customer brand engagement, the interrelationships between the factors were tested by means of a path model. The complete Australian path model was tested using AMOS 20, and achieved fit ($\chi^2_{(1)} = 5.29$, $df = 3$, $p = .15$, $GFI = .99$; $AGFI = .96$, $CFI = .99$, $NFI = .99$, $RMSEA = .05$). The standardised path estimates indicate the strongest relationship between cognitive experience and customer brand engagement (.28), followed by sensory experience (.25) and relational experience (.11). Pragmatic experience was not a significant factor to achieve engagement. These results indicate that hypotheses H1a and H2a are supported, while H3a and H4a were not supported (see Table 2). The path model shows a strong relationship between customer brand engagement and brand intentions (.92), indicating that Australian customers are strongly influenced by an engaging event experience (supporting H5a).

Overall, we can see from these findings that Australian customers attending wine-related BMEs are predominantly seeking cognitive, sensory, and relational experiences. These experiences will motivate the customer to interact and engage with the brand in this event space. Facilitation of engagement is important to Australian wine-event customers, as we can conclude that a successful and engaging event will increase customer’s purchase intentions towards the hosting brand.

Figure 2: Path model of Australian data

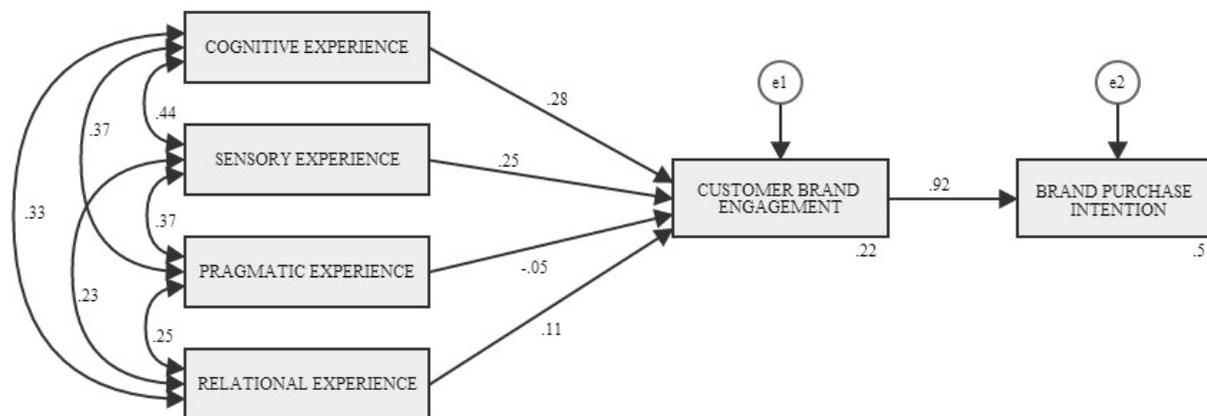


Table 2: Hypothesis Results Summary – Australian Customers

Hypothesis:	Standardized Estimates	Critical Ratio	P	Supported/ Not Supported
H1a – Cognitive experience -- > customer brand engagement	.28	4.48	0.00	Supported
H2a – Sensory experience -- > customer brand engagement	.25	4.23	0.00	Supported
H3a – Pragmatic experience -- > customer brand engagement	-.05	-0.83	0.41	Not supported
H4a – Relational experience -- > customer brand engagement	.11	1.89	0.06	Not supported
H5a – customer brand engagement <-- > purchase intention	.92	9.93	0.00	Supported

5.2. French Results

The complete French path model also achieved fit ($\chi^2_{(1)} = 5.43$, $df = 4$, $p = .25$, $GFI = .99$; $AGFI = .95$, $CFI = .99$, $NFI = .95$, $RMSEA = .05$). The standardised path estimates indicate the strongest relationship between pragmatic experience and brand engagement (.32). The path model shows a significant relationship between customer brand engagement and brand intentions (.36), indicating that French customers are influenced by an engaging event experience, although not as strongly as Australian customers. These results indicate that hypotheses H3b and H5b are supported, while H1b, H2b, and H4b are not supported (see Table 3).

These findings indicate that French customers will only engage if they have participated in a pragmatic experience; they do not respond strongly to experiences that are cognitive, sensory, or relational in nature, but rather they must elicit physical behaviours or actions in order to achieve brand engagement. While engaging with a wine-related event does elicit positive brand purchase intention, French customers are not as persuaded as Australian customers as a result of brand engagement during a BME.

Figure 3: Path model of French data

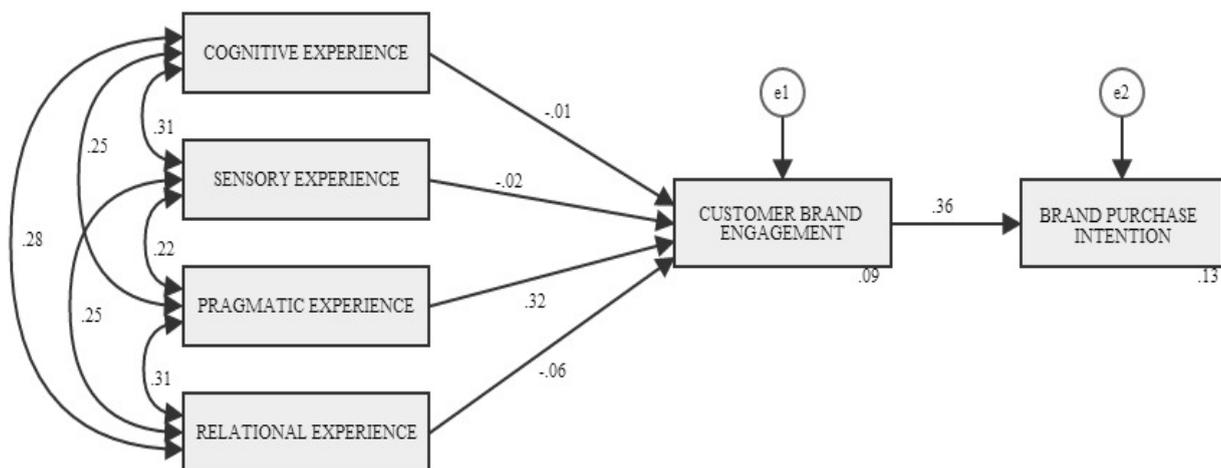


Table 3: Hypothesis Results Summary – French Customers

<i>Hypothesis:</i>	<i>Standardized Estimates</i>	<i>Critical Ratio</i>	<i>P</i>	<i>Supported/ Not Supported</i>
H1b – Cognitive experience -- > customer brand engagement	-.01	-0.07	0.95	Not supported
H2b – Sensory experience -- > customer brand engagement	-.02	-0.22	0.83	Not supported
H3b – Pragmatic experience -- > customer brand engagement	.32	4.20	0.00	Supported
H4b – Relational experience -- > customer brand engagement	-.06	-0.79	0.43	Not supported
H5b – customer brand engagement <-- > purchase intention	.36	5.08	0.00	Supported

6. DISCUSSION

The results of this study provide preliminary evidence that wine-related Branded Marketing Events can facilitate customer brand engagement. The ability for an event to initiate a meaningful and unique experience for the attendee leads them to enter a motivational state of increased attention, enthusiasm, and interaction with the brand, which overall is considered to be a state of engagement. Although both events and engagement have been investigated within their own fields, this study combines the two literature bodies and provides quantitative evidence for events to impact on engagement.

This study identified the existence of four experiential components – cognitive, sensory, pragmatic and relational experiences, and aimed to investigate their impact on customer brand engagement. Results indicated that these components are not equally as influential as each other, but rather certain types of experiences stand out as being the primary influence on engagement, particularly for French customers. Marketing managers and event organizers must consider what experiential elements to include and emphasize during a BME, as providing a cognitive and sensory (and to a lesser extent relational) experience to Australian customers, and events with a pragmatic element for French customers, is of utmost importance in achieving customer brand engagement.

Our findings suggest very different relationships and outcomes between the Australian and French customers, most likely a consequence of the variations in consumer wine culture and wine industry structure. Results indicate that that cognitive, sensory, and relational experience have a significant impact on an Australian customer's brand engagement, while pragmatic experiences do not have a significant impact. The opposite findings were revealed for French customers. In order to facilitate engagement, French customers must be provided with a pragmatic experience, a chance to engage in physical behaviours during the event. This suggests a more 'hands on' experience at French events, while Australians prefer a less active event; a chance to take in wine information, experience the sensory components of food or music, or interact with others to create a social experience.

Finally, the results of this study identify that customer brand engagement does impact on brand purchase intention. The main emphasis in previous engagement research been on creating affect-based outcomes – e.g. satisfaction, loyalty, connection, emotional bonds, trust and commitment (Brodie, Ilic, *et al.* 2011); this study indicates that engagement can also elicit tangible, purchase-related outcomes for brands. The results provide preliminary evidence that this relationship is stronger for an individual wine brand (as depicted in the Australian results) than for a wine region/sub-region brand. This suggests a potential dilution effect occurring within generic branding, and is an interesting avenue for future research.

6.1. Managerial Implications

If we were to distill the essence of the managerial implications from this research it would be that, first and foremost, BMEs have been found to influence customer brand engagement and purchase intention, and therefore should be considered part of a winery's marketing strategy. A second essential implication is that intensifying engagement in an *old world* wine region requires different types of activities and strategies to be put in place compared to those necessary to be employed in the *new wine* world region.

For Australian wineries it is crucial for managers to increase their understanding of engagement as reaching this leads to increased purchase intent. Providing cognitive stimulation is needed in all types of events, as our findings confirm that this leads to engagement. As a sensory product, wine offers the opportunity to also extend sensory experiences into other areas; this type of experience also facilitates increased engagement. BMEs should be clearly targeted and focus on the message and the key experiences shown in this research to lead to engagement. From our findings we can infer that Australian wineries must put more emphasis on cognitive and sensory components of customer experience, while wine serves as one of the key constituents.

On the side of French Wineries, the traditional focus has been on the cultural and educational aspects of the wine experience with wine estates not necessarily seeking to establish a long-term relationship with visitors (Faugère, Bouzdine-Chameeva, *et al.* 2013). The weight of tradition relates to the stronger emphasis that Bordeaux wineries place on the fact that their customers show a 'deep respect' for their traditions. This sentiment can certainly taint the overall interaction between winery staff and customers, often creating a feeling of 'distance' for the customer. However, testimonials by Bordeaux visitors show that there is room for improvement with the pragmatic experience of BMEs. Therefore, it becomes important for French wineries to accept that events must include a pragmatic component, giving attendees the opportunity to engage in physical behaviours and actions during the event, as this is a driving force of facilitating brand engagement.

This paper has purported to prompt managerial awareness of specific marketing strategies to target their customers and enhance brand engagement. Wine customers in France seek a more dynamic relationship with wineries – for example blending their own wine, or creating their own labels. In contrast, Australian customers wish to acquire knowledge in oenology, and wineries should consider their further role in educating customers and building ongoing relationships with a brand via specific sensory experiences. Our observations are consistent with theoretical notions concerning the enhancement of customers' loyalty (Bowden 2009), contending that BMEs possess strong potential to contribute to customer purchase outcomes. We argue that appropriate levels and specific forms of customer stimulation and activities are expected to impact favourably the underlying mechanisms contributing to repeat purchase intent.

6.2. Limitations and Future Research

In conclusion, this paper represents an initial attempt to define the impact of the four different experiential components of Brand Marketing Events on customers' brand engagement. The interpretation of our results might be tempered by recognition of the various limitations of the study, in particular due to differences in data collection methods between the two countries e.g. paper vs. online survey, data collected during event vs. after event, investigating individual brand level engagement versus wine (sub-) region engagement. Replication of the study in other markets would be useful to identify the explanatory factors of sociocultural impact.

Several questions still remain as they are beyond the scope of this research: How would the findings differ for various segments across demographics such as income level, wine involvement, education and age? What kind of interplay exists between brand and region; does this create confusion and volatility to the customers' perception of a winery? We leave these themes for future exploration. Ultimately, our aim is to create BME benchmarks in the wine sector to enhance customer brand engagement and strengthen the existing links between wine customers and wine producers.

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8. APPENDIX

Table 4: Reliability and Validity - Australian (and French) Data					
Scale	Item	Cronbach Alpha	Construct Reliability	Variance Extracted	Highest Squared Correlation
Cognitive Experience	This event tried to intrigue me	0.85	0.85	0.66	0.32
	This event tried to stimulate my curiosity	(0.63)	(0.74)	(0.59)	(0.14)
	This event appealed to my creative thinking*				
Sensory Experience	This event was focused on creating a sensory experience	0.94	0.91	0.77	0.48
	This event tried to excite my senses	(0.85)	(0.84)	(0.63)	(0.17)
	This event provided sensory enjoyment				
Pragmatic Experience	I engaged in physical actions and behaviours when I attended this event	0.84	0.88	0.72	0.23
	This event was action oriented	(0.67)	(0.75)	(0.51)	(0.13)
	This event involved physical experiences				
Relational Experience	Attending this event improved the way I am perceived	0.96	0.96	0.86	0.13
	Attending this event made a good impression on other people	(0.90)	(0.88)	(0.66)	(0.13)
	Attending this event gave me social approval				
	Attending this event created a favourable perception of me among other people				
Brand Purchase Intention	I intend to purchase (wine brand) wines in the near future	0.89	0.89	0.73	0.17
	I would actively search for (wine brand) wines in order to purchase	(0.87)	(0.83)	(0.62)	(0.08)
	There is a high probability I would purchase (wine brand) wines				
Brand Attention	I liked learning about (wine brand)	.93			
	I pay a lot of attention to anything about (wine brand)	(.80)			
	Anything related to (wine brand) grabs my attention				
Brand Enthusiasm	I am enthusiastic about (wine brand)	.88			
	I feel excited about (wine brand)	(.65)			
	To me, drinking (wine brand) wines is worthwhile				
Brand Interaction	I have a high level of interaction with (wine brand)	.80			
	I like to receive information about (wine brand) through newsletters/online subscriptions	(.67)			
	I enjoy discussing (wine brand) with others through online forums/brand communities/social media (e.g. Facebook, Twitter)				
	I spend a lot of time drinking (wine brand) wines, compared to other wines				
() French data is presented in brackets					
* Item was omitted from French analysis					

Major Attributes of Tourism Attractiveness of Wineries and Their Influence on Direct Sales

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Abstract

Purpose: Wine regions are also destinations for tourists. The significance of such a region for tourist maps depends on various factors like for instance a beautiful landscape, good (i.e. comfortable, fast, and safe) paths for cycling, interesting routes for walking, or special cultural attractions and events. But successful marketing of such a region as a destination for wine lovers is difficult without really interesting vineyards or wineries. What services do wineries or vineyard owners have to offer to be attractive for tourists? How can they increase direct sales? And what role does wine tourism have in this context?

Design/Methodology/Approach: These issues will be dealt with in a detailed literature review. Furthermore visitors of five chosen wineries in the region of Franconia (Germany) were interviewed to find out their criteria for attractiveness of wineries. Face-to-face interviews resulted in 200 valid answers.

Findings: Vital for all marketing efforts like tasting and direct sales are a good product quality and service, as well as friendly sales staff. Although the survey confirmed that wine cellar visits and vineyard tours were only subordinate attractions, in relevant literature (worldwide) time and again attractive options especially designed for tourists are mentioned. These options increasingly play a role for differentiating the individual wineries from competitors. And last but not least tourism attraction features for wineries are also important for securing an influx of tourists and thus securing the competitiveness of a wine region.

Practical implications: It is possible to obtain high quality wines at various places all over the world but the combination of an interesting vineyard architecture and a beautiful landscape, as well as offers for tourists to actively experience these features (i.e. an interesting and instructive tour through the vineyard) can be decisive for tourists to want to visit the region.

Key words:

Wine tourism, direct sales, criteria of attractiveness, tourism services

1. INTRODUCTION

The wine economy is subject to major changes and constantly focuses on finding new ways to stand out from competition and secure success. Competitive pressure (in Germany) is increased by establishing wines from abroad (New-World-Wines) on the market, by a growing commercial pressure, and the increasing importance of the internet as a platform for information and channel for commerce. Apart from that changed customer demands like for instance a stronger event orientation force winemakers to go new ways.

Direct sales from the vineyard (stationary direct sales) for instance are perceived as a distribution channel with a great customer binding potential and the possibility of achieving high margins. What attracts potential customers about buying directly from the producer is for instance the direct contact with the producer as well as the possibility to get first-hand information about the product and place of origin. But according to Saaler, Jacobi-Ewerth, and Hoffmann direct sellers as well as normal trade equally experience a decline in customer loyalty. So direct sales to customers are not alone sufficient to secure a living and achieve satisfactory sales figures.

In relevant specialized literature wine tourism respectively wine related event offers for tourists from winemakers serve as a means to make visits more attractive and promote direct sales. A detailed survey of facts which have an influence on attractiveness of wineries for tourists still remains to be done. The target of this article is to show which issues are important for tourists apart from the taste of wine and design of the bottle. What makes a winery or vineyard attractive (for tourists)? What motives do people have to visit a certain winery? How can direct sales be improved? The target is to get plausible answers to these questions.

2. DIRECT SALES AT THE VINEYARD

Direct sales are an attractive entrepreneurial sales option. In a trade scenario carried out by the University of the Saarland in Germany they found out that direct sales “at the farm gate” (also called cellar door sales) are gaining importance and no longer only a market niche. (Winkelmann, 2013). Numerous publications generally emphasize that higher profit margins are the advantage of direct sales due to saving the markup. (Antz et al., 2006; Khachaturian and Rice, 2008). But precise values based on economic data to show these advantages are in many cases still not available. For American wineries Olsen and Hermsmeyer have calculated that direct sales at the vineyard have a margin saving range of 25% to 50% (Olsen and Hermsmeyer, 2008). For Germany the Deutsches Weininstitut has results. According to current figures approximately 18% of privately consumed wine was bought directly at a vineyard in 2011. But this share makes up 24% of sales turnover and thus confirms – as well as higher average prices (5.50 €/per liter) – that higher profit margins were achieved. (Deutsches Weininstitut GmbH, 2013). The interpersonal contact between sales person and customer (ideally face-to-face) when visiting the vineyard is the chance to build up and intensify customer relationships (Winkelmann, 2013; Thach and Olsen, 2006; Groß, 2008).

For stationary sales (direct sales at the vineyard) the wine makers have salesrooms on their premises where they can meet customers (for instance a “Vinothek” /wine shop). At this occasion the sales person should motivate the customer to a sightseeing tour of the vineyard and thus make use of and benefit from a Pull-Strategy [1]. What the customer perceives and experiences on site like for instance an attractive salesroom or a supplementary touristic offer is beneficial for sales.

At this point it should be mentioned that wine can be sold to private as well as to commercial customers. As both groups presumably come to the vineyard for different reasons the design of

the company buildings also has differing levels of importance for both groups. Focus as far as this is concerned should be on the final customer.

3. A WINERY AS A TOURIST ATTRACTION

A vineyard or winery must meet various requirements in order to attract visitors. It begins with sign-posting so that it is easy to find and reach by car, then the premises should be in a proper condition to attract customers, and friendly and competent sales personnel should also be available. But first and foremost it is of importance that wine makers must create attention for their premises and convince customers to come. In this case local or on site offers are of great importance, because in particular tourists look for interesting experiences and features. This chapter will outline various different offers for tourists and the respective requirements.

3.1. Measurability of Tourism Attractiveness

Until now research work focused on tourism attractiveness was only sporadically performed as the assessment and evaluation of what attracts tourists is a difficult and rather complex field of research. The challenge in this context is that the influence of the experienced attraction is partially perceived consciously whilst on the other hand there is an unaware perception. Furthermore it is also necessary to specify the various motives for a visit in order to be able to differentiate factors for an analysis i.e. one must distinguish the factors of attraction of wineries perceived by tourists from those of the local population. And as there is no stereotypical wine tourist this in turn can also have an influence on research results.

An accepted definition of the syntagma „tourism attractiveness“ has yet to be found in specialist literature. In his article on the subject Formica emphasizes that tourism attractiveness „depends on the relationship between the availability of existing attractions and the perceived importance of such attractions.“ (Formica, 2006) This contribution therefore intends to introduce various offers concerning wine tourism and to give reasons for their selection with regard to the presented research activities. The analysis explains which components are to what extent of importance for the attractiveness of a winery or vineyard from the visitor’s point of view. What must be taken into consideration is that the underlying data was the result of interviews and thus preliminarily analyses the components of attraction of a winery which were consciously perceived. Links to results of an analysis carried out by Longo in New Zealand (1999) referring to the importance of attributes when selecting a winery to visit will be given later on in this article. (Hall et al., 2000)

3.2. Basic information on wine tourism

Various different definitions of the term wine tourism currently exist. One established definition is by C.M. Hall. He describes wine tourism as: „visitation to vineyards, wineries, wine festivals and wine shows for which grape wine tasting and/or experiencing the attributes of a grape wine region are the prime motivating factors for visitors“ (Hall et al., 2000). This definition clearly shows that wine tourism is characterized by a multitude of offers resp. is composed of these factors. Getz includes: Wine tasting, Dining, Sightseeing, Shopping, Learning and Recreation. The touristic offer should thus ideally be a combination of adventure, learning, and recreation. In this context it must be considered though that the intensity of wine related activities to a great extent depends on the motivation of the target group. (Getz, 2000)

With reference to the preferred activities of wine tourists Getz states the following: „Their activities in the destination might be very focused on visiting wineries for tasting, or more in depth to include learning about viticulture and wine production.“ (Getz, 2000) Therefore the quality and diversity of what a winery can offer is not only of importance for the economic

situation of the wine maker himself but also for the creating of value for the whole destination. (Mancino and Lo Presti, 2012). For tourism this means an enlarged offer portfolio and for wine makers it is an additional source of income. At the same time the portfolio for wine tourism is not only limited to the offer of a winery but must be seen as a complex structure in the field of destination management. As resources for the wine tourism industry can be considered the terraced vineyards and hill slopes, wine cellars, routes for walking, festivals, and shows as well as other wine related activities and places. Catering and accommodation facilities are an essential supplement for the tourism offer. (Hall et al., 2002)

3.3. Fundamentals of a tourism orientated winery

For wineries, opening for tourism means to extend resp. enlarge the original production business by including additional tourist-orientated services. Next to all normal activities (cultivating vines, grape harvesting, wine production etc.) the winery must now also concentrate on ensuring procedures and processes concerning new offers/services.

Fig. 1: Original offer and supplementary offer of vineyards / wineries (Source: own graphic)



Challenges arise when two business branches like tourism and production co-exist at a location which formerly was only in production-related use. In the last few years the operators / owners of such dual use locations have tried to solve this problem by adding changes to the building's design or other features as dividing elements. It is important to maintain a balance between limiting access to areas for safety related reasons and providing tourists (participants of company tours) the close up experience of wine making. As visitors sometimes directly come in contact with the production area, arrangements concerning the presence of visitors must be made to avoid disturbances in production or even having to interrupt the work process. Therefore it is necessary for the company to set out conditions beforehand which enable a successful opening for tourism and minimize disadvantages as far as possible.

In principle consistent and uniform quality standards must be implemented and are essential for all event offers, as overall quality depends on the sum of its parts even if their influence presumably varies insofar a search individual part has more or less influence on overall quality. (Zielke, 2004). It is certain though that a consistent customer orientation is necessary and therefore principles and/or guidelines for the organization of a winery with tourism offers must by all means comply with expectations and wishes of the target group. It is also necessary to bear in mind that there is no one and only perfect marketing concept which can be transferred to all businesses. Maintaining diversity and the different regional characteristics (traditions, building culture, etc.) is an essential element for establishing a wine tourism attraction for visitors.

Cambourne et al. emphasize, that a wine cellar which is opened for tourists should comply with certain expectations. Prerequisite is that it is easily accessible. A sufficient number of car

parking facilities should be available as well as perfect quality on site. Wine in bottles should be taken for wine tasting events and the expertise of an oenologist is helpful. Hospitality plays an important role for customer satisfaction and friendly and competent staff is an absolute must.

McDonnell and Hall define various dimensions, which are of importance for wine cellar visits:

- Surroundings and outside attractiveness (i.e. architecture, car parking facilities, sign-posting),
- Surroundings and inside attractiveness (i.e. interior design, furnishing, decoration, equipment, order and cleanliness)
- Ambience
- Staff
- The product
- Merchandise articles, brochures
- Direct and indirect external factors (i.e. external information about the vineyard). (McDonnell and Hall, 2008)

In particular smaller wineries often do not have a representative wine cellar and thus cannot make adequate use of certain options or possibilities. (Dübner, 2004) Their marketing activities are restricted to being listed in wine guides and signs on the building. (Frochot, 2002)

Hashimoto and Telfer stress the importance of distinguishing the own winery from other suppliers in the field of wine tourism. Due to the large amount of local suppliers in a wine region, which each have the product wine as a major point of attraction, it is important to create additional offers. Exceptional culinary experiences, cooking courses, and special events are possibilities for wineries to distinguish themselves from the broad mass and thus attract customers. (Hashimoto and Telfer, 2003)

3.4. Structuring wine tourism offers

For wineries and vineyards there are various possibilities to participate in wine tourism. One possibility is to have **permanent attractions**, these in most cases require changes to the building. In this category you can also count the design of an attractive salesroom, the opening of a “Straußwirtschaft” or a restaurant on site as well as providing accommodation possibilities. The latter includes holiday flats with self-catering as well as a hotel affiliated to wine.

Apart from the aforementioned wine makers can also offer various activities to visitors. A list which by no means claims to be complete is the following example:

- Guided visits on winery premises (i.e. company tours, tours of nearby vineyards, visits to the wine cellars)
- Guided walking tours
- Seminars and courses
- Culinary offers (i.e. picnic at vineyard slopes, dinner in the wine cellar) (Müller and Dreyer, 2010)

The visit to the wine cellar is very often the main reason for visiting a winery. Ali-Knight and Carlsen declare that opening the wine cellar for tourists is an excellent possibility to intensify customer contacts and bind customers to a certain vineyard. (Ali-Knight and Carlsen, 2001) The wine cellar is considered as a sort of shop window for the business. „It’s not just about wine tasting but about providing a whole experience to make a visit memorable and which will translate into future sales of wines.” (ACIL Consulting, 2002) The total experience is of vital importance. The background of the landscape, the design of the wine cellar, information on site,

friendliness of the personnel, and experience value are determining factors for customer satisfaction. (Roberts and Sparks, 2006) According to O'Mahony more than 50% of the visitors of a wine cellar subsequently to their stay buy wine of the respective winery. (O'Mahony et al., 2008)

Connected to these forms of offers are in most cases **events** because festivals and events in the field of tourism are of increasing importance in particular when considering the growing experience-orientation within society.

3.5. Event orientation of wineries

Current trends are substantial challenges for wineries. They must act if they want to animate customers to continue to visit the winery and thus be able to profit from sales at the vineyard. Customers are increasingly pleasure-seeking and experience orientated and have high expectations concerning attractions on site which are not only restricted to wine tasting and buying wine. Apart from that customers also wish to have a sophisticated ambience for wine tasting events. The search for an exceptional experience is an increasing trend and this must be considered for product and offer arrangements. It generally is not possible to directly create an experience but the framework conditions for a personal experience can be organized (experience production). According to Dreyer and Linne and based on findings from Müller and Scheurer and Mikunda these factors include well-being of the visitors, telling a story, building-up anticipation / tension, determining attractions and activities, creating event zones, designing event sceneries, as well as orientating visitors in space and time. (Dreyer and Linne, (2011); Müller and Scheurer, (2004); Mikunda, (1998).

And in fact for the direct marketing business a general trend to strive for a world-of-experience/adventure winery is perceivable (Woschek et al.; 2011) but in the sense of the aforementioned many factors still have to be cleared. The surroundings and the atmosphere on site can contribute to image-building of an enterprise and can be an incentive to acquire a product for potential customers (even at a later time in a shop or restaurant). According to statements in literature, the design and layout of a shopping centre can positively influence consumers' satisfaction whilst shopping and has an influence on the length of their stay in the centre as well as often leading to impulse purchases. Here further empirical studies and adaptations based on trade and marketing literature are necessary.

4. EMPIRICAL STUDY CONCERNING FACTORS OF ATTRACTIVENESS OF WINERIES

By means of an empirical study the authors have tried to further underline the results by finding out which aspects of attractiveness are essential for the visit of a vineyard. This survey based on results of a literature review, which dealt with topics concerning forms of offers and a requirements profile for wineries in connection with wine tourism. Already in chapter 3 hints were given concerning factors which should be considered to successfully participate in wine tourism. The main target of the study is to find answers to the following survey questions:

- Which facts or offers in principle have an influence on the perceived attractiveness of a winery for tourists?
- How do visitors of a winery value these influential factors with regard to their importance?
- Are there notable different answers to research questions depending on which winery was visited?
- Are there differences to a survey with similar investigations, performed in New Zealand in 1999?

The question that arises is which factors have the most influence on customers and what makes them consciously or unconsciously choose the winery they want to visit. Coupled to these aspects were also questions concerning their attitude towards wine purchasing in general, and if wine already had been bought on site resp. if on site purchases are planned.

4.1. Methodology

For the face-to-face interviews which were held in autumn 2013 visitors of wineries were interviewed. To increase the amount of sample answers a small number of questionnaires were also laid out in wineries and staff members actively promoted them.

Target was to find out why visitors of a vineyard had decided to visit this vineyard and what makes a visit attractive or where should improvements be made. Attached to the questionnaire was also a list of questions concerning visitors' assessments of the general aspects of attractiveness of a winery for a visit. This topic was the basic element of the questionnaire. Factors which, according to relevant specialized literature, can have an influence on visit attractiveness like for instance: architecture, friendliness of service personnel, were classified in a four-part scale with a ranking from very important to unimportant. The combination of open and closed questions offered the chance to catch first impressions of the asked persons and on the other hand gear attention to certain factors (as mentioned in examples). An optic separation of the questions helped to make sure that the answers of the persons participating in the questionnaire were not influenced by answers which appeared in detail later on in the questionnaire and referred to attractiveness of wineries.

The survey concentrated on five different wineries in the region of Franconia (Germany) which is characterized by a high density of interesting and innovative viticulture enterprises. All interview locations were in the conurbation area in and around Würzburg and it was hoped that this would minimize regional influences as the predominant aim was to determine factors of attraction of the individual wineries and achieve a high comparability as far as surroundings (landscape, topography etc.) were concerned.

In total a sample size of 200 valid answers was achieved. The allocation of samples were as follows: three of the participating wineries had a sample size of 50 each and in two smaller businesses there were 25 completed questionnaires each.

4.2. Results

For those persons asked the wine quality is the most important factor of choice for selecting a winery for a visit. As a source of information concerning quality for instance are awards given to wine brands or wineries (for instance Berlin Wine Trophy) or a listing in reknown wine guides like GaultMillau, but also word-of-mouth recommendation. At this point it must be mentioned that four of the five sites where questionnaires were placed are mentioned in the wine guide GaultMillau 2013.

Reason for the visit and visit frequency

The importance of wine quality is reflected in the fact that 87% of the questioned persons bought wine at the respective winery. According to information given by the survey participants the larger part of them purchases wine directly from a winery or vineyard which means that the large part of the participants also visits a winery or vineyard several times per year. Only 7% had never visited a winery or vineyard before. If questions directly refer to a visit to the winery where the survey took place on site then the following results were obtained: the majority of the visitors was well acquainted with the winery due to previous visits. Sometimes slightly less

than 50% of the questioned persons had visited the winery for the 3rd or more times. This gives rise to the presumption that the majority of the interviewed persons live nearby in the region (only those persons who leave their familiar environment are considered day trippers and thus per definition are counted as tourists). Furthermore the wineries Sommerach, Weingut am Stein, and Juliuospital also experience a greater number of one-time visitors and therefore these figures were higher. In order to avoid that the majority of the questioned persons were locals or persons living in the region, all interviewed persons were also asked to state where they came from. By adding the postcode it was possible to clarify that only 20% of the interviewed visitors of a winery directly came from Würzburg. Another 30% came from towns in the region (identical postcodes) but after clearing interviews by the authors they could be counted as tourists (day trippers or overnight guests). The remaining half of the interviewed persons mainly came from Southern Germany or Central Germany. Thus a mere sample composition can enable a determination of tourism attraction criteria for wineries.

But what raised the attention of the visitors to make them visit a winery? When analyzing the survey independently from the winery where the survey was conducted it becomes obvious that 113 of the questioned persons (56%) heard of the winery through friends and acquaintances. In second position of the ranking were wine periodicals and journals 18.5%. 24 of the questioned persons (12%) declared that they had heard of the respective winery through the Internet, whilst further 22 persons stated that they had come across the winery by chance when driving past. All other percent values refer to travel guides or magazines, tourist information centres etc. Thus it can be stated that word-of-mouth recommendations at least amongst the participants was the largest medium of advertising or main channel for spreading the information. The Internet with a percentage of 12% has lesser importance resp. entails considerable extension potential.

Demography of winery visitors

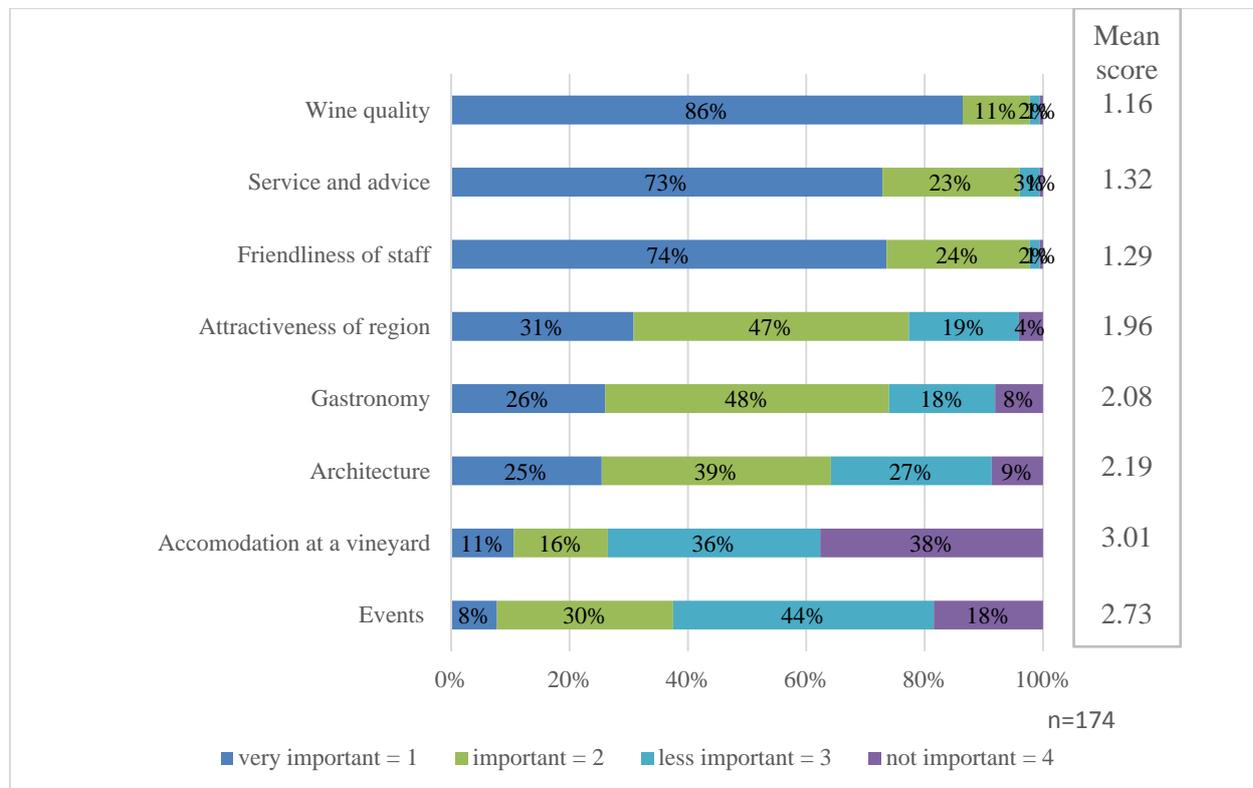
When looking at the demographic profile it becomes obvious that slightly more men than women were questioned and that they were accompanied in most cases by their partners, friends or family members. This fact as well as the age structure of the survey participants complies with the results and findings of other surveys like for instance those of Mitchell, Hall, and McIntosh, or Williams and Dossa (Mitchell et al., 2000; Williams and Dossa, 2003). In this survey 67% of the persons questioned were older than 46 years and the result thus corresponds with the demography of wine lovers or traditional wine tourists.

Attraction factors

As afore mentioned the quality of wine is according to the persons questioned with a mean score of 1.16 (for nearly all respondents very important) the leading criterion for deciding to visit a certain winery. Nearly just as important were friendliness of staff and customer service and information on site (average value of 1.29 and 1.32). These results correlate with findings of other surveys and clearly show the importance of so-called soft facts in the wine selling business. As an example at this point one can mention the survey carried out by Longo in New Zealand. In her survey she identifies friendly service as the most important attribute in selecting a winery to visit with a mean score of 1.24 (evaluated on a scale from 1 to 5). This issue not only has an influence on the impression a visitor gets of the winery but according to statements of the persons questioned, it also has an influence on their buying habits. Complementary to these findings is a survey conducted by Johnson which also confirms that personalized customer treatment and friendly service by owners/operators of a winery or their staff is considered as particularly significant for attracting visitors. (Hall et al., 2000) Thus wine quality, customer

service, and information as well as staff friendliness are by far the most important sales criteria. The following diagram shows the ranking of the criteria.

Fig.2: Evaluation of criteria: attractiveness of wineries (Source: own survey)



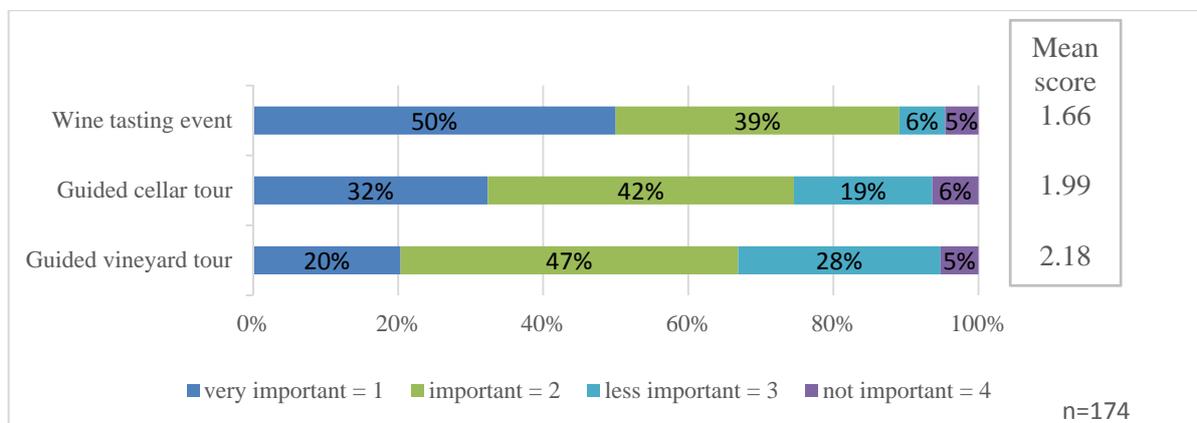
For three quarters of the questioned persons the attractiveness of the region was important or very important. Very similar are factors for gastronomy and what was considered as slightly less important was architecture. In particular this was surprising in this context as architectural innovations at the location of wineries according to numerous articles in the press very often clearly lead to an increasing number of visitors. In an interview with the management of the winery Tramin (South Tyrol) the authors were informed that due to the attractive new building, sales at the vineyard could be increased by 50%. Together with other factors though which the persons questioned considered as more important, architecture as criterion loses in importance as a guaranteed success factor. This alone makes it clear that there are still research gaps which remain to be closed.

The fact that issues like events and accommodation possibilities at a winery seem to be less important (just a mean score of 2.73 and 3.01) could be influenced by various aspects. For instance there was no event worth mentioning scheduled when the interviews were held. This leads to the conclusion that the questioned persons were not that interested in events or have other motives for coming to the winery. An explanation for why the issue accommodation possibilities at a winery was also considered as not that important, might be the fact that a high percentage of locals or day trippers living in the region were interviewed. For these persons the criterion accommodation has no importance. Despite these potential influences it can be noted that these results are similar to the results of the survey conducted by Anna Marie Longo in New Zealand (Hall et al., 2000)

Generally speaking one can say that an assessment or evaluation is a subjective view and that personal motives are decisive. Tourists probably might be more interested in supplementary offers than local people who come to the winery primarily to buy wine. In this case the quality

of wine and customer service are primary components. As wine tasting events are generally also visited by both target groups to the same extent this also explains the high level of importance of this activity for the questioned persons (average value of 1.66). This also correlates with Longo's results in New Zealand. Here 87.2% of the visitors definitely or most probably wanted to participate in wine tasting at the winery in the course of the day. (Hall et al., 2000) Guided wine cellar tours are also considered as very important by 32% of the questioned persons and 42% at least rated this criterion as important in the German study. This implies a mean score of 1.99. These offers therefore are a point of attraction for wineries. But in comparison with other above listed issues these criteria seem to be less important for the choice of a winery to visit. A new comparison with the survey performed in New Zealand clearly shows differences. Here the majority of the questioned persons stated that they would highly unlikely or definitely not be interested in taking part in a winery or vineyard tour.

Fig. 1: Evaluation of criteria: a selection of activities at a winery (Source: own survey)



As a result to the question “What criteria make this winery attractive for you?” significant differences between the individual locations, where the question was posed are noticeable. But nevertheless all have one issue in common: all interviewed persons stated that the quality of wine resp. the selection and brands was a main criterion. This criterion is leading in the ranking list concerning factors of attractiveness for all objects included in the survey.

For the winery Winzergenossenschaft Sommerach (www.winzer-sommerach.de) a large number of answers referred to architecture or ambience. The factors friendliness of staff, price/performance or regional attractiveness were not considered to be a primary objective associated to the question of what makes a winery attractive for a visit.

The winery Weingut am Stein (www.weingut-am-stein.de) convinces through the wine quality as well as an extraordinary architecture combined with an unparalleled view of the city of Würzburg. This was mentioned by all interviewed persons. Other factors which were increasingly considered as positive were also friendliness of staff and expert advice. A few answers also referred to the location at the “Würzburger Stein” or the organic production of wine, to which this winery is dedicated.

The winery Weingut Hirn (www.weingut-hirn.de) attracts attention through its extraordinary “Hundertwasser” (famous artist) architecture and is well known for this. This fact is also predominant in the results of the interviews. Furthermore the quality of the wine was also positively mentioned, but 14 of the 25 interviewed persons emphasized that the main attraction

was definitely the architecture. Ambience, food, and the location were also mentioned but were less frequently considered as factors for attractiveness.

The other two wineries included in the survey Juliusspital and Bürgerspital differ considerably from all the others. At the winery Juliusspital (www.juliusspital.de) more than half of the total of given answers referred to wine quality and the selection of wines as a decisive criterion which make a visit of the vineyard / winery attractive. In addition the location of the winery near the city was also considered as very attractive. Surprising was the fact that ambience and architecture seemed to play no or only a small role for the interviewed persons although the wine cellar, which can be visited, only recently was redesigned. The later also applies to the winery Bürgerspital (www.buergerspital.de). Here all interviewed persons attached high importance to the good quality of wine as a criterion. Furthermore eight of the interviewed 25 persons stated that they mainly visit the winery Bürgerspital because of the people they can meet there (customers) and consider this as attractive. For locals the Bürgerspital, with its large and attractive area for gastronomy, is also a popular meeting place and location where much time is spent together with others.

On the whole the ranking (listed separately according to winery) shows the above mentioned results obtained on the basis of pre-formulated criteria given to interviewees/visitors of wineries, and thus the criteria for attractiveness of a winery or vineyard were confirmed by the survey. A positive aspect is that of the 171 valid answers only four of the interviewed persons stated that they would not visit the respective winery again.

The wine quality is the predominant criterion but also friendliness of staff and customer service and expertise advice are considered as very important although both later issues were not mentioned very often in the open question field. But nevertheless some of the apparent shifts in ranking or differences show that some of the business-related features must be considered for a wine tourism related positioning. It is thus important for a winery to know which advantages or potential it has and to expand these.

4.3. Limitations

The performed survey is a very good indicator as to which factors from the point of view of customers are of importance for the attractiveness to visit a winery. This question is often influenced by numerous factors and reflects personal or individual perceptions. Therefore many questions still remain unanswered. In order to receive representative results an extension of the survey should be considered. For example a still outstanding research hypothesis is that features of attraction which in particular are of interest for “wine specialist” tourists i.e. tourists with a profound knowledge of wine differ from those of the casual wine-drinking tourists. For the later mentioned tourists for instance visits to other interesting nearby sites or a visit program combined with wine (i.e. wine-tasting and walking tours in the region) counts as a holiday experience or highlight.

Furthermore numerous persons were interviewed which had visited the winery several times before. This can also be a fact which can lead to distorted answers. Discrepancies between the various wineries concerning the number of visits also result from the fact that visitors sometimes were questioned whilst participating in a company tour or respectively when they were in the shops. It is possible that in these cases different motives for a visit and thus differing ideas are reflected. Comparisons in particular with the survey carried out in New Zealand by Longo show that regional differences exist but these could also be a result of other influences. As mentioned in the above survey a large amount of locals resp. persons revisiting the wineries were questioned. In New Zealand on the other hand only approximately half of the questioned persons at the respective winery had visited the winery before (Hall et al., 2000). A follow-up

survey should thus be planned in order to be able to precisely name influences and enable an evaluation with respect to their influential strength. Moreover the objects of the survey are not very comparable, which on the one hand is requested to determine distinguishing factors but on the other hand excludes a clear ranking. But this can hardly be avoided as viticulture in Germany or respectively the German winemaking industry is strongly characterized by individuality and the independent personality of the wine-growers which in particular is a result of the existing small artisan structure and the numerous family-owned companies.

5. CONCLUSION AND OUTLOOK

Wine regions are also destinations for tourists. If they are important enough to be shown in a tourism map depends on various facts like for instance a beautiful landscape, comfortable and safe paths for cycling, interesting routes for walking, or particular cultural attractions and events. Without really interesting wineries or vineyards such a region as a destination for wine tourism cannot exist or can only be marketed with difficulties. The wine makers themselves on the other hand are in competition with other wineries in the region and even more with wine makers throughout the world. With an attractive winery the sales of the individual enterprise can be increased and furthermore a higher profit margin can be achieved by means of direct sales.

As a basis for all sales efforts count the classical criteria for sales like good product quality, service, and customer friendly and competent staff, criteria which are also valid for wine tasting events and vineyard sales. And even if customers mention wine quality in first place it still remains a worthwhile aim to invest in increasing the attractiveness of a winery. For locations which are alongside busy roads an attractive architecture alone can animate motorists to a stop. The interior design and decoration at a “point of sale” (wine tasting area, wine shop) have an influence on the sales atmosphere and thus can influence the customers’ willingness to buy.

Although the survey confirmed that wine cellar visits and vineyard tours are only partially factors for attractiveness of a winery, in literature worldwide these additional more tourism orientated offers are frequently mentioned. They play a larger role in particular as an element to distinguish individual wineries from competitive businesses. And these factors of attractiveness for wineries also serve as means which preserve the competitiveness of a wine destination. It is possible to obtain high quality wines at various places all over the world but the combination of an interesting vineyard architecture and a beautiful landscape, as well as offers for tourists to actively experience these features (i.e. an interesting and instructive tour through the vineyard) can influence tourists to want to visit the region.

NOTES

[1] The reason for the visit is not solely buying wine but also the expectation of experiences on site. For instance wineries hold back special brands of wine which they only offer for sale at the vineyard. This can also be a possibility to attract potential customers. (Getz, 2000)

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“A Presentation of the Primary Research on Visitation to Wine Festivals and Wineries in British Columbia”

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I. Caveat

This summary conforms to the request of Dr. Gergely Szolnoki for a summary of the paper and does not contain detailed appendices of the primary research findings nor the survey design or list of wineries and events used as venues for the interviews. These are available if required.

II. Introduction & Background

The Okanagan Valley in British Columbia, Canada, is recognized for its successful wine industry and one of its success stories has been the development of a wine tourism sector that is attracting wine tourists. The wines being produced have contributed to the increased tourism for the Okanagan Valley but it is also recognized that Festivals and events attract destination tourists. The wineries of the Okanagan have collaborated to market themselves through the Okanagan Wine Festivals Society – a not for profit entity that is responsible for the development and management of a series of Okanagan Wine Festivals to market the region as well as Signature Wine Events outside of the Okanagan Wine Festivals where opportunities to promote the region’s wineries are presented.

The Okanagan Wine Festivals Society (“OWFS”) is headquartered in Kelowna, British Columbia and has a membership of 119 wineries and 40 tourism partners (www.thewinefestivals.com). The OWFS has created three 10 day wine festivals. The Spring Okanagan Wine Festival will enter its 20th year in 2014. It comprises an 80 plus event festival over 10 days that kicks off the main tourism season in the Okanagan on the first two weekends in May. It cross promotes heavily with the Okanagan golf tourism industry since Albertans are heavily attracted to the Okanagan for golf and wine. The Summer Signature Events Series comprises a number of different one time “wine and food” events in partnership with other organizations that also target a similar wine and food tourist. Currently, two partnerships exist with Silver Star Mountain Resort and the Okanagan Pride Society. The Fall Okanagan Fall Wine Festival will enter its 34th year in 2014 and has been ranked for over 13 consecutive years as one of the Top 100 Events in North America (American Bus Tour Association 2014). It offers over 150 events during the 10 days leading up to Thanksgiving. The Winter Okanagan Wine Festival at Sun Peaks Resort near Kamloops will enter its 17th year in January 2015 and has gained a reputation as an intimate gathering of wine education, fine cuisine and winter recreation.

III. Research Problem

The OWFS does not have adequate information on customers that visit wineries outside of a Wine Festival and it also does not have accurate information on its customers that come to visit each of its Okanagan Wine Festivals. It requires this information to make more informed decisions.

IV. Research Objectives & Purposes

The purpose of the research is to advance the knowledge about visitors to wine festivals & wineries in British Columbia. The objectives of the research are: to gather information regarding tourists that visit wineries in the Okanagan both during an Okanagan Wine Festival and outside of an Okanagan Wine Festival; to identify visitor demographics, geographic origins, expenditure data and marketing influencers that motivate tourists to visit a winery in the Okanagan and to attend an Okanagan Wine Festival.

V. Research Methodology and Design and Approach

The research methodology comprised primary research only conducted over the course of 12 months between September 2012 and August 2013. The research sample size comprised 981 personal interviews. An original survey was created to address the research problem. The research was conducted using a customer intercept method. It occurred at a sample of wineries in each appellation of the Okanagan Valley during the Winter Okanagan Wine Festival, the Spring Okanagan Wine Festival, and the Fall Okanagan Wine Festival. In addition, surveys were carried out at the same wineries outside of each Okanagan Wine Festival during the peak summer tourism season. The variation in location and timing of the survey implementation was an intentional attempt to balance the objectives of obtaining a high response rate as well as collect data from an appropriate distribution of the varieties of customers that visit Okanagan wineries and the Okanagan Wine Festivals.

Primary data collected from the survey was used to create and analyze information and formulate implications regarding the spending distribution, demographics and other components relevant to the knowledge of tourists that will help the OWFS make more informed marketing decisions.

VI. General Outcomes for Findings

The results of the primary research provide useful new information about patterns of the visitors to the Okanagan both during the Okanagan Wine Festivals and during the peak summer tourism season. The information has allowed implications to be derived to assist the OWFS and its member wineries when making decisions about marketing strategies as they relate to the Okanagan Wine Festivals and for Signature Events to promote this tourism sector. The information offers practical implications including the importance of segmentation, targeting and positioning of the Okanagan Wine Festivals as well as the allocation of resources to the integrated marketing communications strategy.

VII. Summary of Main Findings & Implications

The following is a summary of the main findings of the primary research as presented to the Okanagan Wine Festivals Society at its 2014 annual general meeting of 119 wineries and 40 tourism partners as well as to the British Columbia Wine Institute and to the Government of the Province of British Columbia:

- A. Destination wine tourists spent significantly more on winery visits than Okanagan resident respondents. Destination wine tourists spent an average of \$473.68 (Cdn) per person per winery trip. Okanagan residents spent an average \$119.79 (Cdn) per winery trip. Along with the economic impact study of the wine tourism industry in the Okanagan (Okanagan Wine Tourism Industry Economic Impact Report; Baldwin; Okanagan College 2014), that valued the direct economic impact of wine tourism at \$80 million (Cdn) annually, this demonstrates that wine tourism is a significant tourism sector for the province of British Columbia. The direct spend also demonstrates the importance of promoting wine festivals and events, the importance of promoting wine touring to visit retail wine shops, and the importance of developing accommodation packages to attract destination tourists.

- B. Wine tourists are highly educated, earn high incomes, and are generally comprised of Generation X and Baby Boomers. The Okanagan Wine Festivals were found to draw in a significantly younger crowd than those only visiting wineries.
- C. The importance of culinary tourism and wine tourism is growing as demonstrated by the statistics showing the discretionary spend on wine sales and food purchases as well the importance of accommodation for destination wine tourists. Data collected also discloses that those wineries that have invested in food service are generating a positive economic impact and encourage visitors to stay longer, spend more and try more wines at the winery.
- D. The average party size for customers attending all venues was 2 (two), often couples on a date. This is important for the wineries and the Okanagan Wine Festivals to make informed choices on their messaging to attract customers and for the types of media selected as part of their integrated marketing communications strategy.
- E. Although all adult age categories were represented by wine tourists, baby boomers were the most common age group, with 48% of wine festival respondents between 46 – 60 years, and 42% of winery respondents of the same age. The greatest difference between the age distribution of wine festival and winery respondents was that wine festivals tended to have a greater representation of younger age groups (49% of festival respondents 19 – 45 years versus 39% for wineries), while wineries tended to have a greater proportion of senior customers (19% of winery respondents 61+ versus only 3% for festivals).
- F. Wine tourists possess high levels of education. More than half of respondents from both types of venue claimed to have successfully completed at least four years of post-secondary education. One main implication from this finding is that the events must largely create a level of innovation to keep these wine tourists loyal and a degree of interaction is typically desired by affluent well educated tourists who have the income to travel and want authenticity.
- G. Wine festival customers are equally balanced between destination tourists and regional residents. This indicates the critical importance to the Okanagan Wine Festivals of ensuring it equally targets regional residents and destination tourists as part of its overall strategy.
- H. Most respondents planned to stay in the Okanagan between 1 (one) and 4 (four) nights. 26% of winery customers planned to stay in the Okanagan for 5 (five) nights or more, while only 6% of wine festival customers planned to do the same. The length of stay is important to the Okanagan Wine Festivals. This finding implies that wine festivals attract wine tourists for overnight stays and is a reason for accommodators to become involved with the wine festivals.
- I. The cities of Kelowna and Penticton proved to be the main areas in which destination tourists plan to stay overnight.
- J. Most winery customers were interested in wine tasting/purchasing, and often chose a specific winery based on winery location and reputation. Price was less of a reason why customers decided to choose one winery over others. The other main reasons for visiting a winery included the recommendation of a friend/family decision; wanting to taste a favorite wine or wanting to attend a winery event. For the wineries, this shows the growing importance of maintaining a strong positive reputation, being authentic, and creating strong service skills. For the Okanagan Wine Festivals Society, it also highlights the growing importance of winery members needing to create innovative events at their wineries.

- K. The awareness of the Okanagan Wine Festivals indicates an opportunity to build loyalty which encourages the concept of customer database development and the need to inform customers of new events.
- L. The high percentage of new customers to events at the Okanagan Wine Festivals indicates that the Okanagan Wine Festivals shows the industry is still in its infancy and there is room to grow demand.
- M. The main marketing influencers comprise: word of mouth from friends and family; the reputation of the organizer and the quality of events.
- N. Almost 100% of visitors to an Okanagan Wine Festival indicated they plan to attend another wine festival in the future. Data suggests that those who visit Okanagan Wine Festivals also visit more wineries outside the festivals, implying that wineries stand to gain increased visitation if they participate at an Okanagan Wine Festival.
- O. A majority of visitors who have attended an Okanagan Wine Festival event in the past year have only done so 1 (one) – 2 (two) times suggesting that the average visitor has not visited every Okanagan Wine Festival. This demonstrates that there remains an untapped opportunity to market other wine festivals to current customers.
- P. 100% of those attending an event at one of the Okanagan Wine Festivals indicated that they intended to attend another wine festival. This demonstrates the success of festival and event execution. For the OWFS, one implication is that an appropriate amount of resources must be devoted to not only event planning but to event execution.

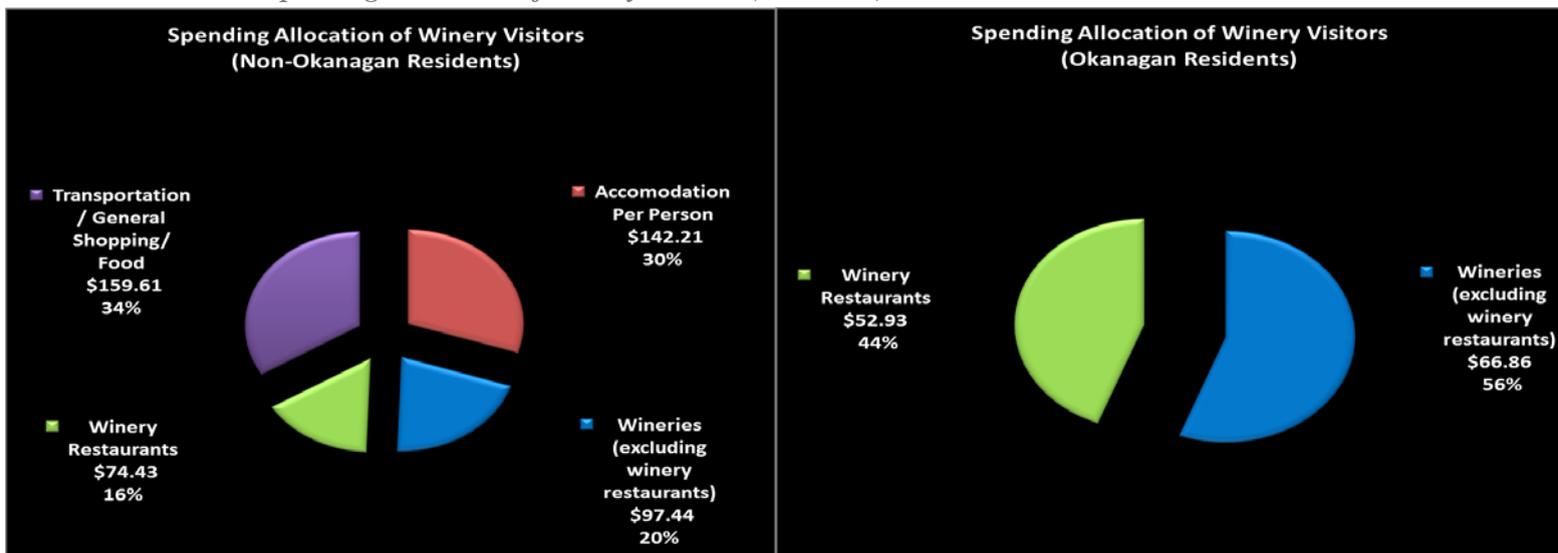
VIII. Primary Research Main Results

The following is a summary of the primary research results consolidated from the main report.

A. Distribution of Spending at Wineries

Winery survey respondents were asked what they tended to spend in a day on average at wineries on the categories listed below.

Chart 1: Spending Allocation of Winery Visitors (Pie Chart)



Purpose

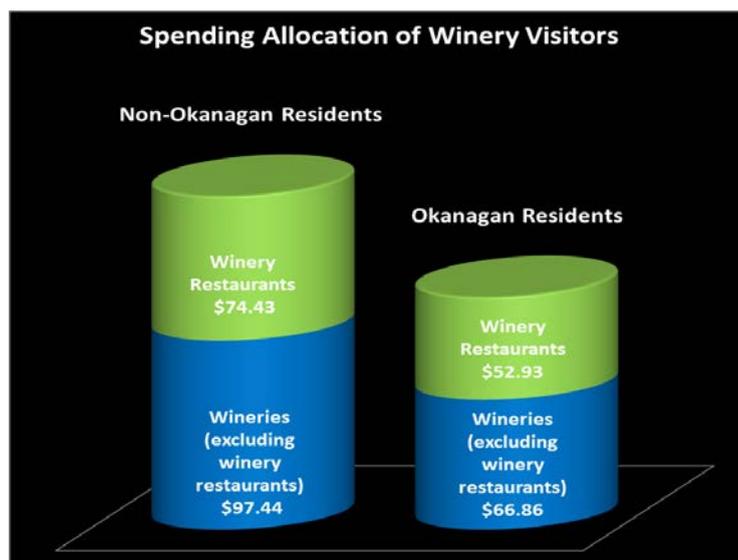
This chart shows an averaged allocation of what survey respondents claimed to be the amount of dollars spent on the listed categories, separated by residency location.

Conclusions

Winery survey respondents who happened to reside outside the Okanagan spent much more on winery visits than did Okanagan resident respondents. Destination wine tourists spent an average of \$473.68 (Cdn) per person per winery trip. Okanagan residents spent an average \$119.79 (Cdn) per winery trip. In addition to spending more on their winery visits, non-Okanagan residents created the additional economic impacts of spending on accommodation and other general expenses which would not had been made without their travel to the region. Okanagan resident respondents spent an average of \$66.86 (Cdn) when visiting Okanagan wineries (excluding winery restaurants). Residents also spent an average of \$52.93 (Cdn). These destination tourist spending estimates are quite high supporting the conclusion that wine tourism is a very significant tourism sector. Non-Okanagan resident respondents spent a daily average of \$97.44 (Cdn) when visiting Okanagan wineries (excluding winery restaurants. Non-residents also spent an average of \$74.43 (Cdn) when visiting winery restaurants.

Non-residents spent a nightly average of \$142.21 (Cdn) on accommodation while in the Okanagan. Non-residents spent \$159.61 (Cdn) on a combination of transportation, general shopping and food during their stay in the Okanagan.

Chart 2: Spending Allocation of Winery Visitors



Purpose

This chart shows an averaged allocation of what survey respondents claimed to be the amount of dollars spent on the listed categories, separated by residency location. This column chart was made from the same data as the previous pie chart (excluding extra spending made by non-Okanagan residents), but done so in a different style to accentuate the absolute dollar amount, rather than percentage differences.

Conclusion

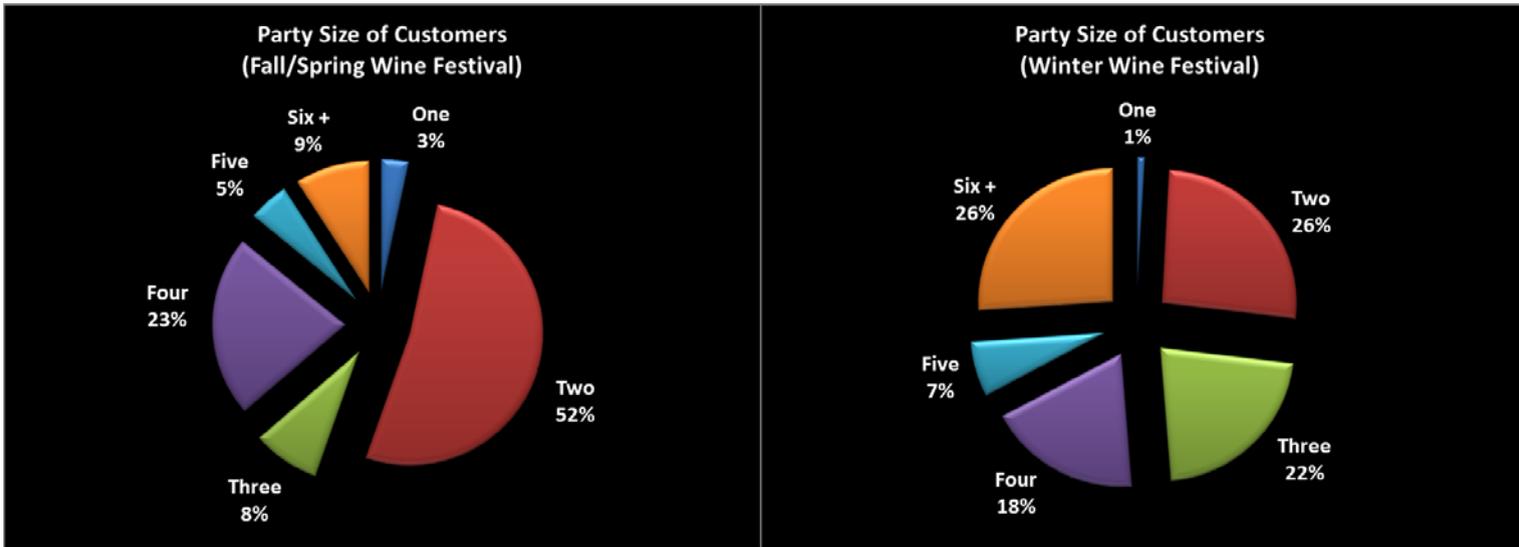
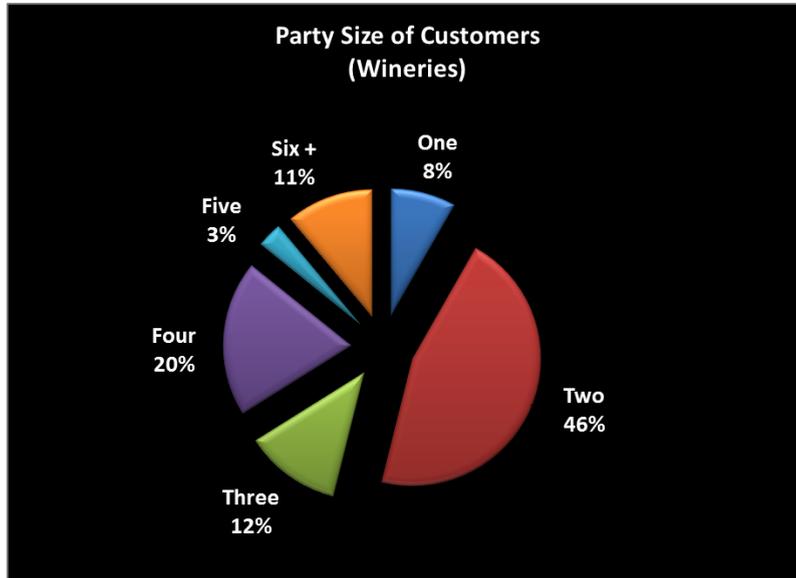
This chart shows that non-Okanagan residents spent more per winery visit than did Okanagan residents. However, this chart does not address the number of times individuals visit Okanagan wineries. It may be that locals visit wineries more often. What is evident is the importance of culinary tourism to the wineries.

B. Demographics

Party Size

Respondents were asked how many individuals were in their party.

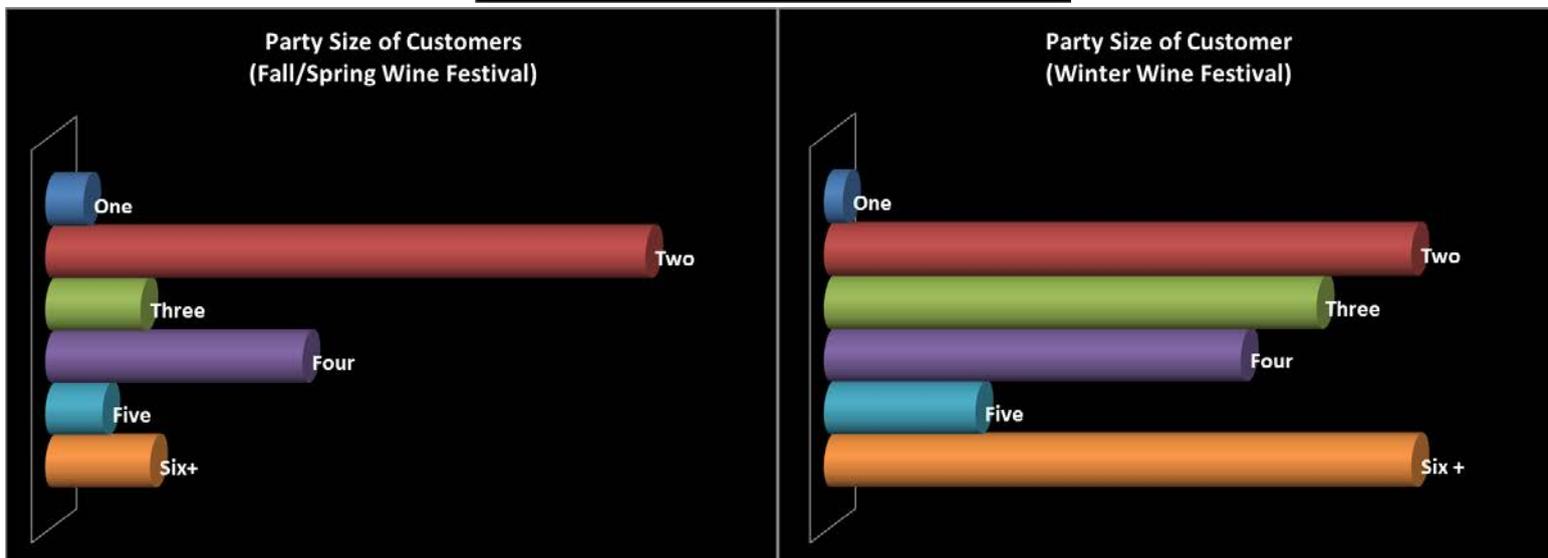
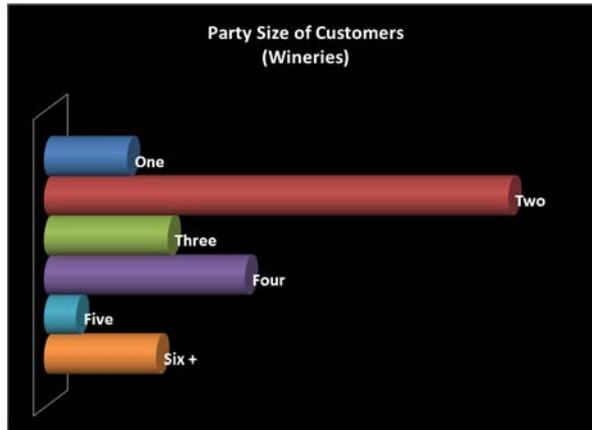
Chart 3: Party Size of Customers (Pie Chart)



Purpose

This chart shows the percentage breakdown of party size of survey respondents separated by venue.

Chart 4: Party Size of Customers



Purpose

This chart shows the difference in party sizes of survey respondents separated by venue. This column chart was made from the same data as the previous pie chart, but done so with a different style to accentuate the number of responses for each size category, rather than by percentage.

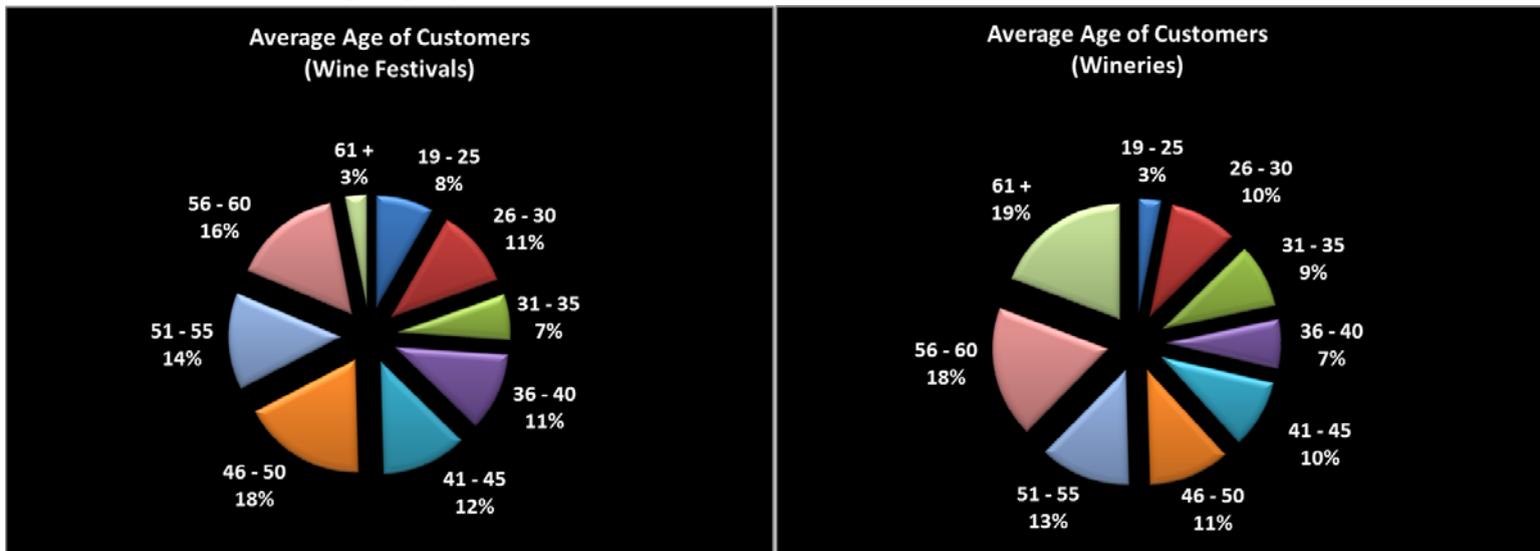
Conclusions

It was discovered that the most common party size for customers attending all venues was 2 (two), often couples on a date. Party size at the Winter Wine Festival in particular deviated from the pattern of the other venues, mostly because of a relatively higher percentage of large parties and parties of three. This difference in party size reflects the unique group atmosphere for which the Winter Wine Festival at Sun Peaks is known.

Age

Respondents were asked to give an average age for the party they were with at the time.

Chart 5: Average Age of Customers



Purpose

This chart shows the average age of the parties of survey respondents, separated by venue.

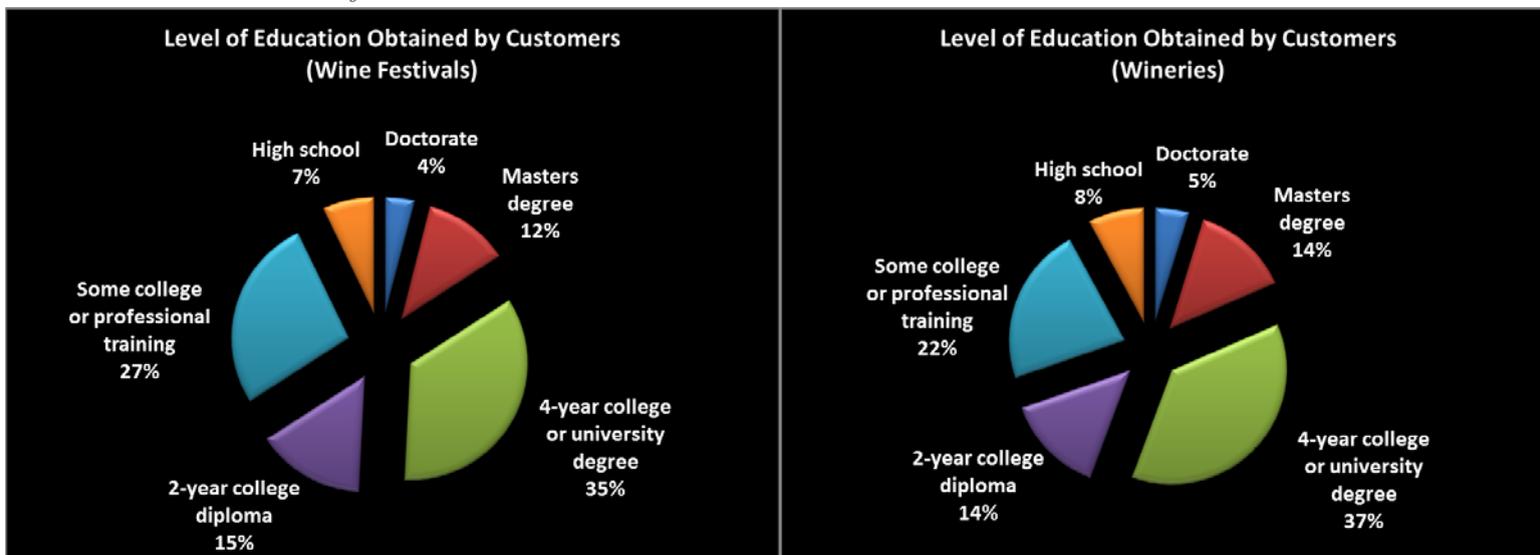
Conclusions

Baby boomers were the most common age group, with 48% of wine festival respondents between 46 – 60 years, and 42% of winery respondents of the same age. The greatest difference between the age distribution of wine festival and winery respondents was that wine festivals tended to have a greater representation of younger age groups (49% of festival respondents 19 – 45 years versus 39% for wineries), while wineries tended to have a greater proportion of senior customers (19% of winery respondents 61+ versus only 3% for festivals).

Education

Respondents were asked how much education they have thus far completed.

Chart 6: Level of Education Obtained



Purpose

This chart shows the levels of education obtained by survey respondents, separated by venue.

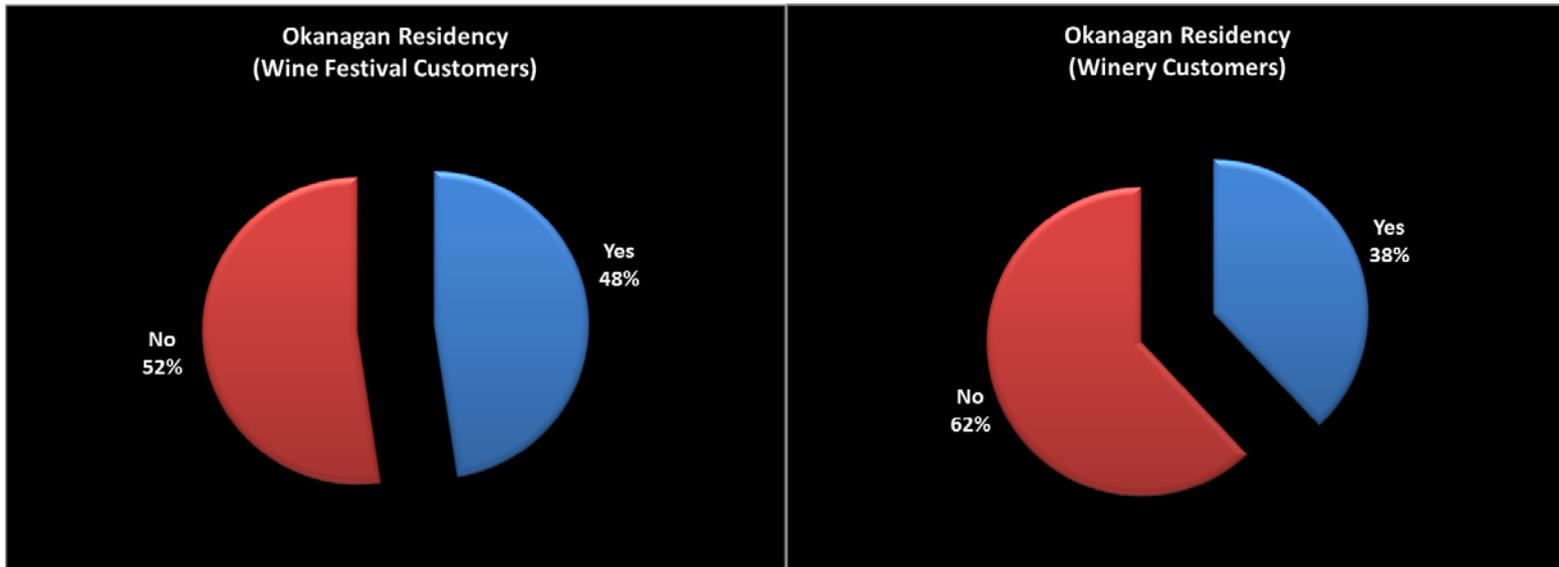
Conclusions

Relatively high levels of education were claimed by survey respondents compared to the general public (The Conference Board of Canada, 2007). For example, more than half of respondents from both types of venue claimed to have successfully completed at least four years of post-secondary education. .

C. Okanagan Residency

Respondents were asked whether or not they live in the Okanagan.

Chart 7: Okanagan Residency



Purpose

This chart shows the percentage of survey respondents claiming to be residents of the Okanagan, separated by venue. A 'No' answer indicates non-Okanagan residency.

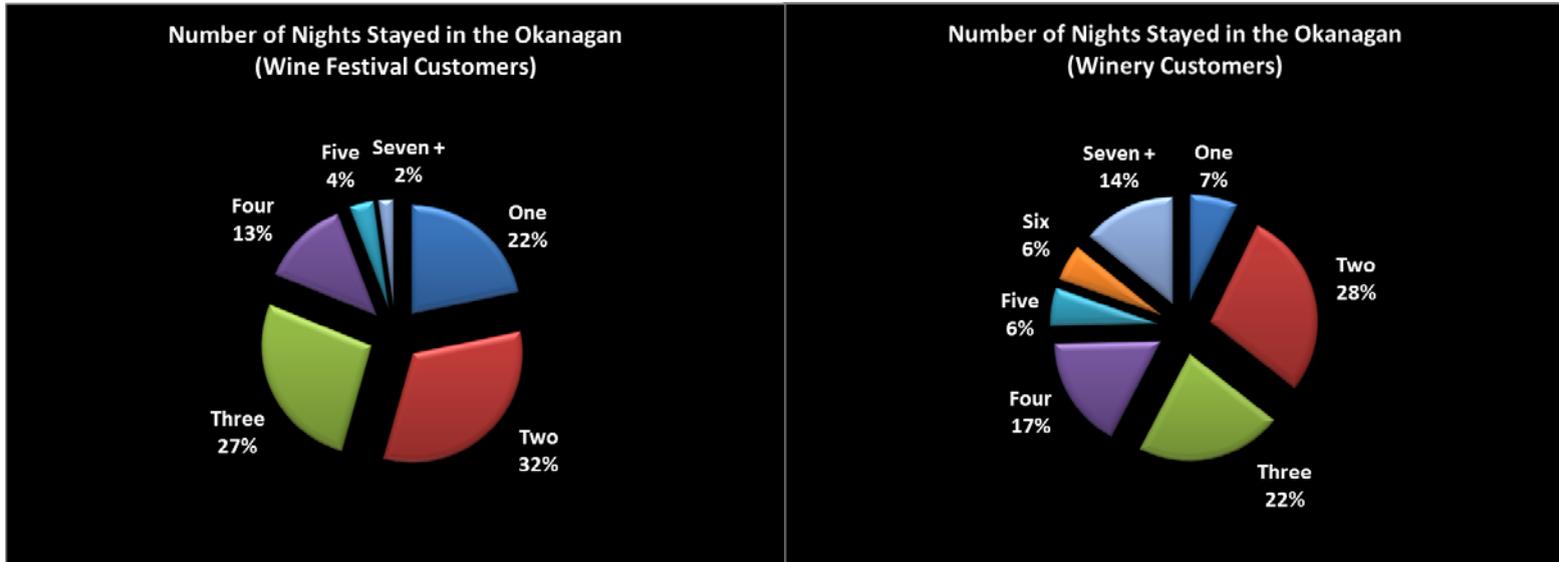
Conclusions

Wine festival customers were slightly more likely to be Okanagan residents than winery visitors. However, non-Okanagan residents made up the majority of customers at both venues. This indicates the critical importance to the Okanagan Wine Festivals of ensuring it equally targets regional residents and destination wine tourists to ensure its events and overall Festivals are an economic success.

D. Number of Nights Stayed in the Okanagan

Non-Okanagan resident respondents were asked how many nights they planned to stay in the Okanagan.

Chart 8: Number of Nights Stayed in the Okanagan



Purpose

This chart shows the number of nights non-Okanagan resident respondents planned to spend in the Okanagan, separated by venue.

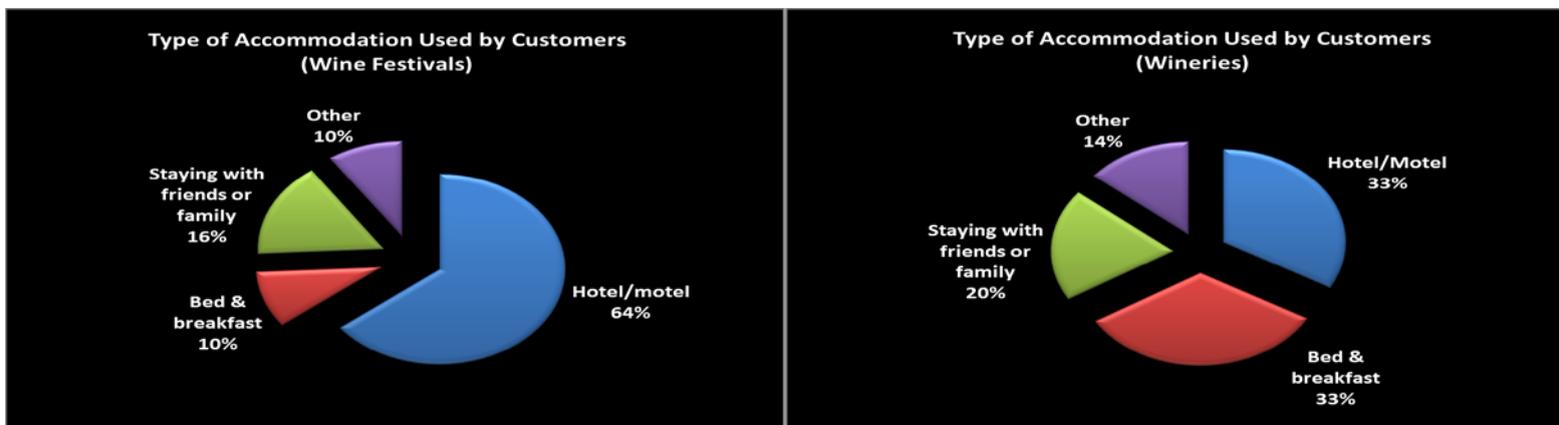
Conclusions

Most respondents planned to stay in the Okanagan between one and four nights. 26% of winery customers planned to stay in the Okanagan for five nights or more. The length of stay is important to the Okanagan Wine Festivals as it demonstrates that the Festivals do attract wine tourists for overnight stays and is a reason for accommodators to support this tourism sector.

E. Type of Accommodation

Non-Okanagan respondents were asked what type of accommodation was used during their stay in the Okanagan.

Chart 9: Type of Accommodation



Purpose

This chart shows the type of accommodation non-Okanagan resident respondents used.

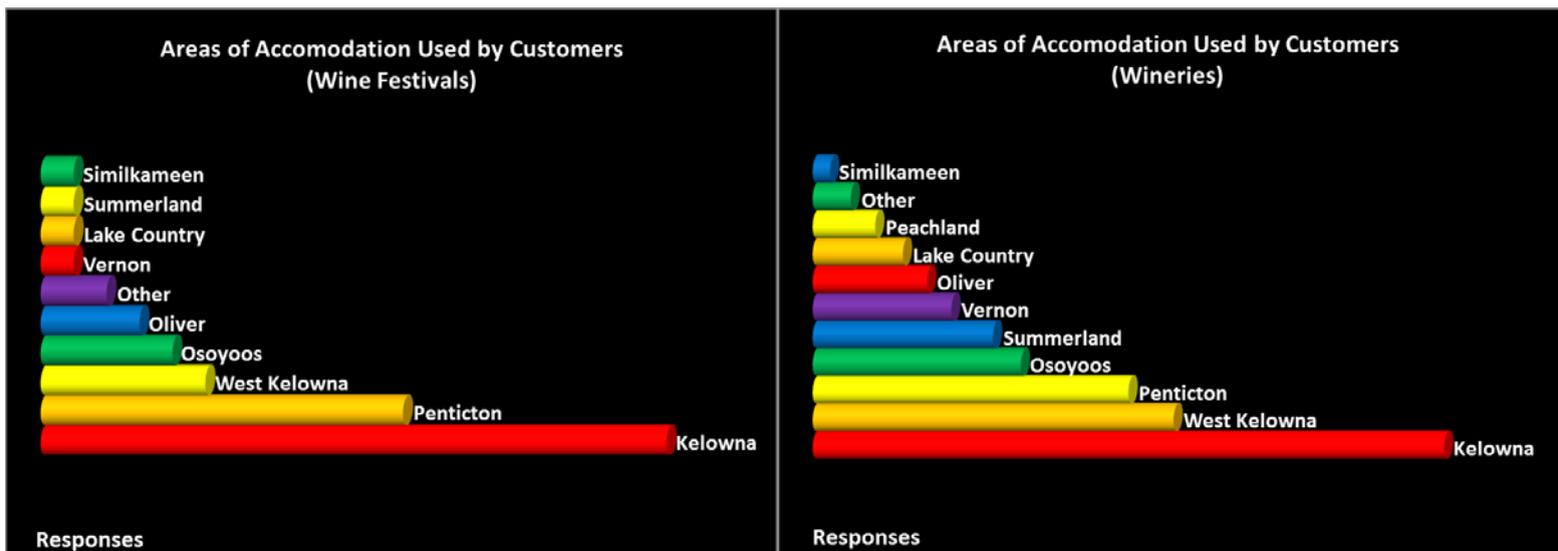
Conclusions

The majority of non-Okanagan resident wine festival attendees claimed to use a hotel/motel for accommodation. Non-Okanagan resident winery attendees were just as likely to use a Bed and Breakfast as a hotel/motel.

F. Areas of Accommodation

Non-Okanagan resident respondents were asked where they were staying during their trip.

Chart 10: Areas of Accommodation



Purpose

This chart shows the places non-Okanagan residents stayed at during their trip to the Okanagan.

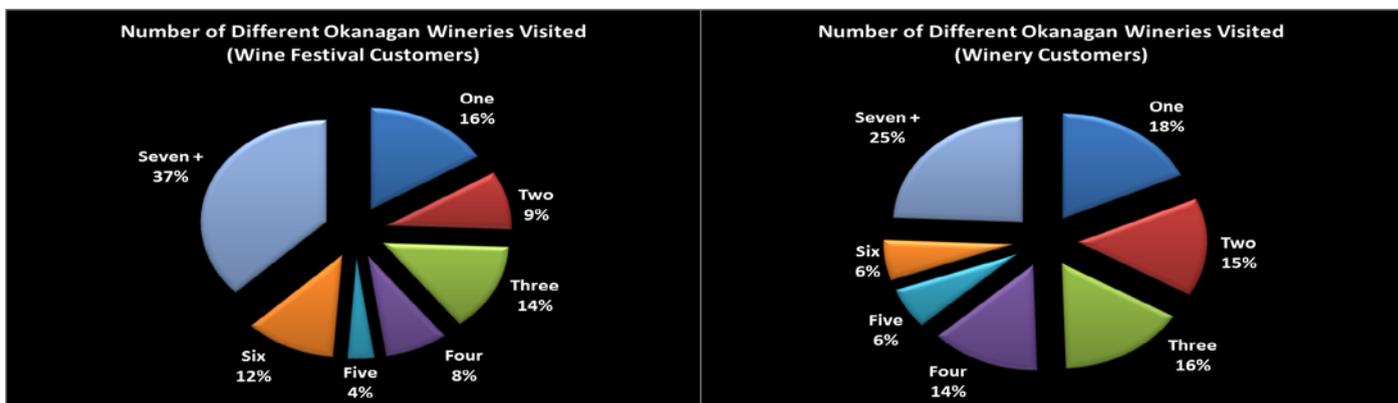
Conclusions

West Kelowna, Kelowna and Penticton proved to be the main areas non-Okanagan wine customers planned to stay overnight during their time in the Okanagan.

G. Number of Different Okanagan Wineries Visited

Respondents were asked how many different wineries they visited during the last two months.

Chart 11: Number of Okanagan Wineries Visited



Purpose

This chart shows the number of different Okanagan wineries customers claimed to have visited in the two months prior to answering the survey, separated by venue.

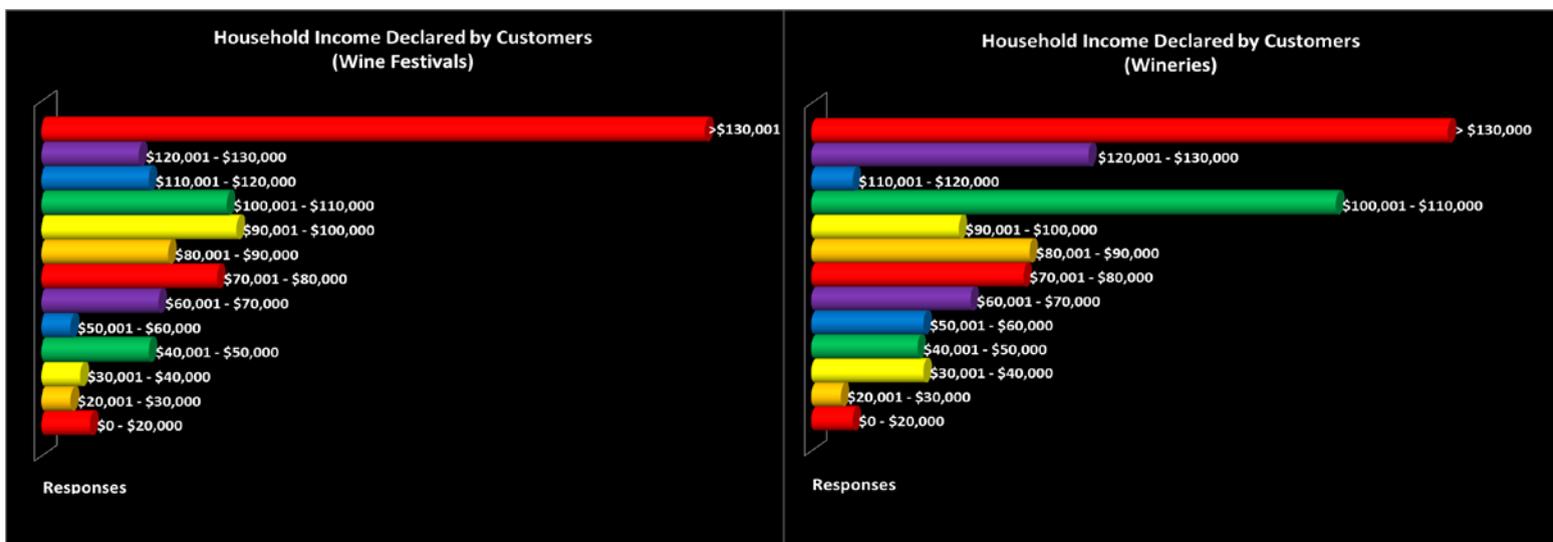
Conclusions

A significant proportion of customers at both venues claimed to have visited seven or more different Okanagan wineries in the past two months. The higher percentage of wine festival customers that visited more than seven wineries could be explained by the Wine Festivals Passport which encourages customers to visit more wineries with the use of draw prize incentives. Most winery customers visited between one and four different wineries. It also demonstrates the higher amount of travel and winery visitation that wine tourists are willing to undertake during an Okanagan Wine Festival.

H. Household Income

Respondents were asked how much income their household earned on an annual basis.

Chart 12: Household Income



Purpose

This chart shows what customers claimed to be their annual household income, separated by venue.

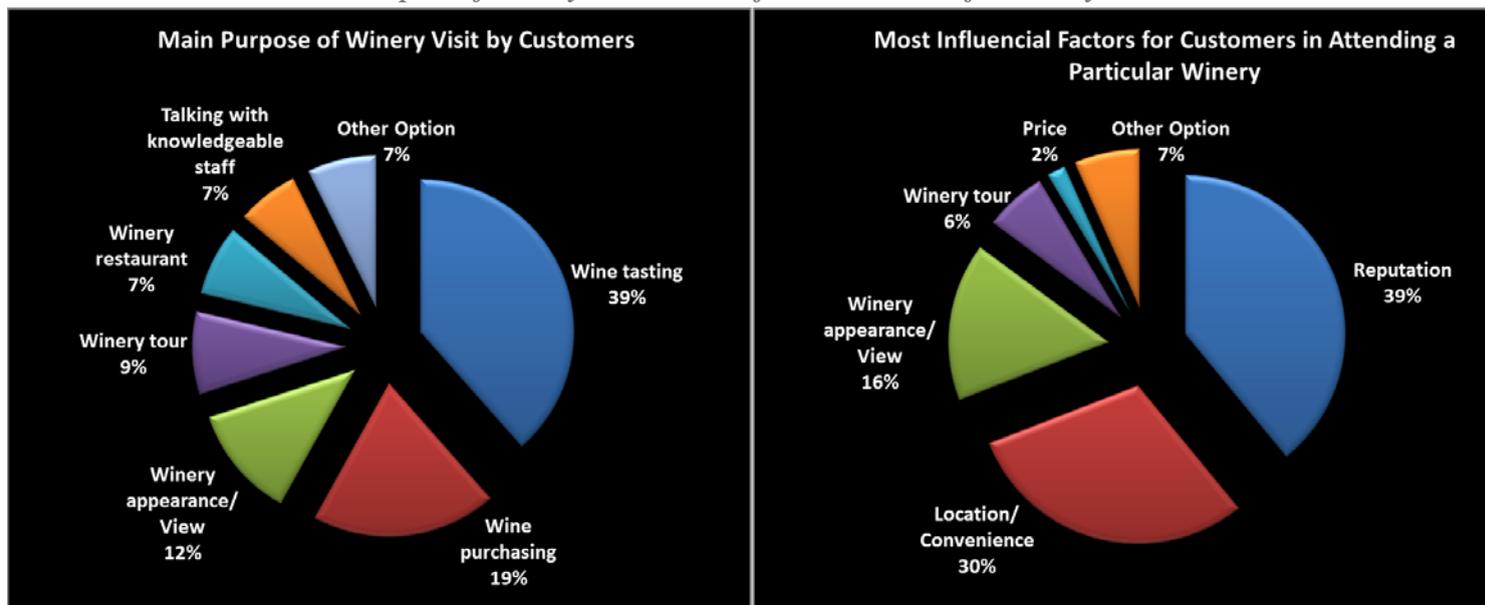
Conclusions

Customers from both venues reported relatively high levels of income.

I. Winery Marketing Data

Winery respondents were asked two related questions. The first dealt with their main purpose of visiting the winery; and the second question dealt with the most influential factors in attending a particular winery.

Chart 13: Main Purpose of Winery Visit/ Most Influential Factors for Winery Attendance



Purpose

This chart shows what customers were hoping to achieve during their winery visit, as well as what drew their attention to the particular winery they had chosen.

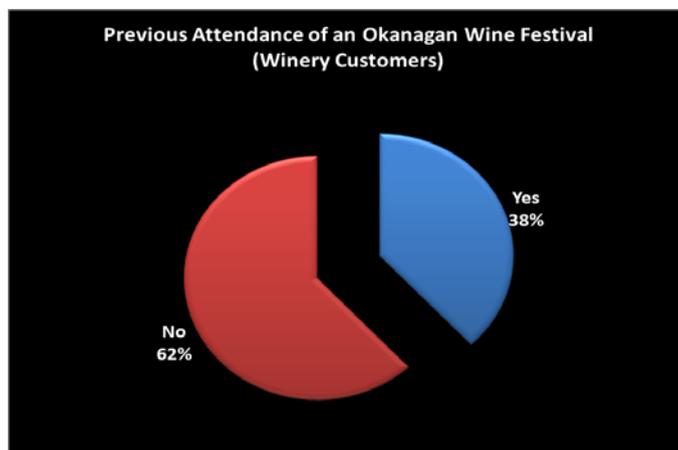
Conclusions

Most winery customers were interested in wine tasting/purchasing, and often chose a specific winery based on winery location and reputation. Price was not a dominant reason why customers decided to choose one winery over others. The other option was often elaborated by the customer as being a friend/family decision, a favorite wine or a special winery event. For the wineries, this shows the growing importance of maintaining a strong positive reputation, being authentic, and creating strong service skills. For the Okanagan Wine Festivals Society, it also highlights the growing importance of winery members needing to create innovative events at their wineries.

J. Wine Festival Attendance

Winery customers were asked whether or not they had previously attended an Okanagan Wine Festival in the past.

Chart 14: Winery Customers That Have Previously Attended an Okanagan Wine Festival



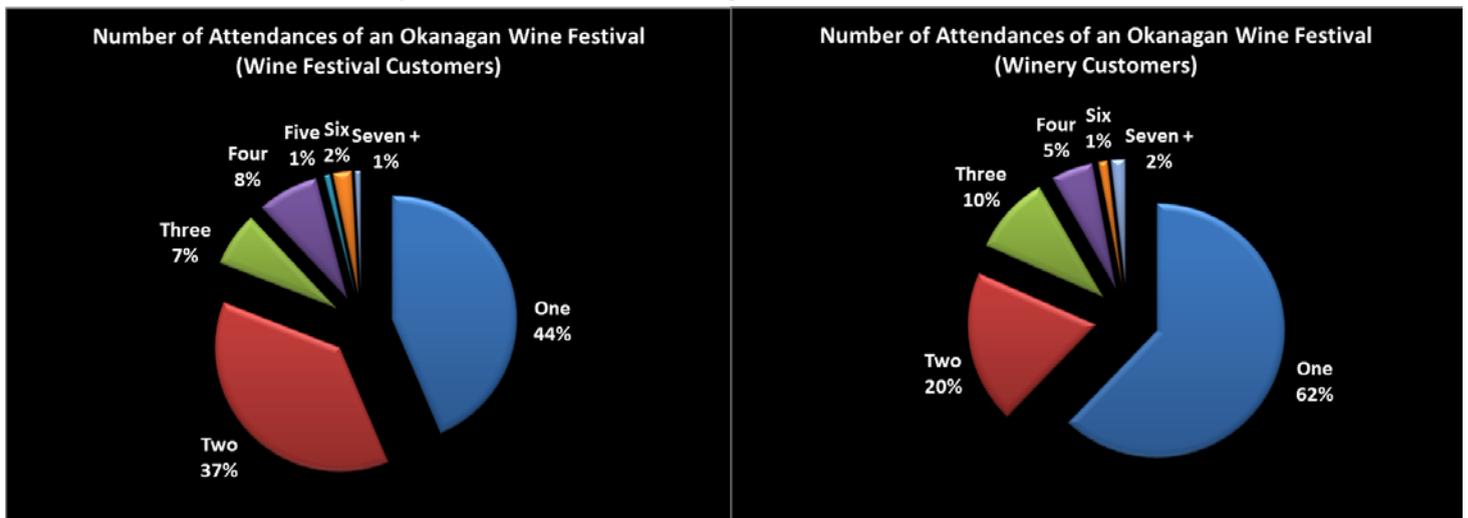
Purpose

The above chart shows how many winery customers claimed to have attended an Okanagan Wine Festival in the past, ‘Yes’ meaning they have, ‘No’ meaning they have not. The results reveal that slightly less than 40% are loyal customers while just over 60% are new to the Okanagan Wine Festivals.

Conclusions

Approximately one third of winery customers claimed to have attended an Okanagan Wine Festival event in the past. This can be interpreted in a number of ways. There is a strong degree of loyalty to the Okanagan Wine Festivals which is encouraging for customer database development and keeping loyal customers apprised of new developments. The large percentage of new customers indicates that the Okanagan Wine Festivals is reaching out and achieving its goal for market development of wine tourists and is attracting a new market of wine tourists. It also indicates that different segments exist that will require different messaging.

Chart 15: Number of Attendances to an Okanagan Wine Festival



Purpose

This chart shows the number of times customers claimed to have attended an Okanagan Wine Festival event within the past year, separated by venue. Wine tourists who attend an Okanagan Wine Festival are more likely to attend other Okanagan Wine Festivals than those who only visit wineries.

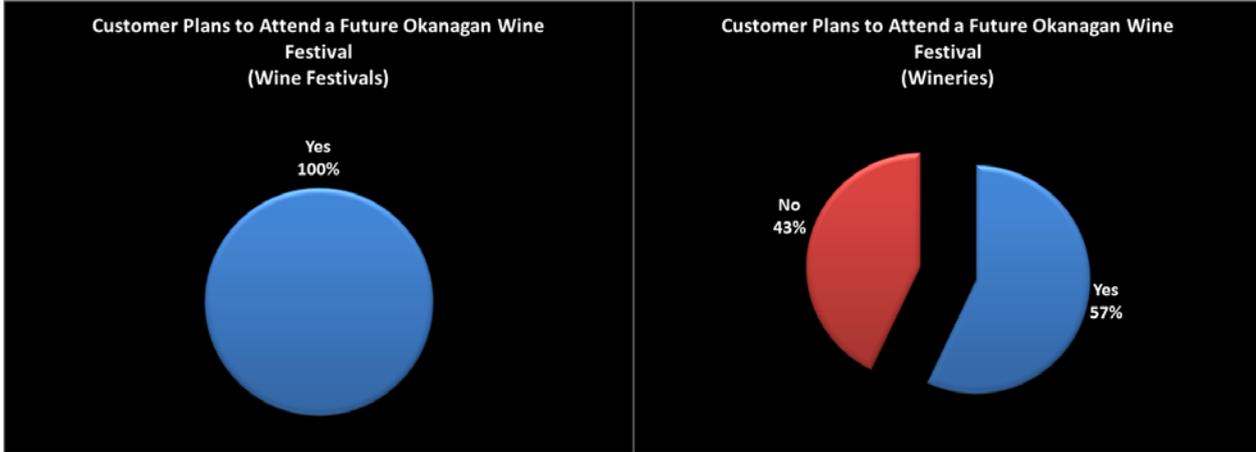
Conclusions

Most people who have attended an Okanagan Wine Festival event in the past year have only done so one or two times, suggesting that the average Okanagan Wine Festival customer has not visited every Okanagan Wine Festival. This is positive news for “wine festivals” as it demonstrates that there is a segment of wine tourists that are more focussed on events and festivals.

K. Future Okanagan Wine Festival Attendance Plans

Customers were asked whether or not they planned to attend an Okanagan Wine Festival in the future.

Chart 16: Customer Plans to Attend a Future Okanagan Wine Festival



Purpose

This chart shows whether customers planned to attend a future Okanagan Wine Festival, separated by venue. The results indicate the Okanagan Wine Festivals customers are unanimously looking forward to returning to another Okanagan Wine Festival. The wine tourist who is visiting a winery only does have a positive response – over 50% - that they would like to attend an Okanagan Wine Festival in the future.

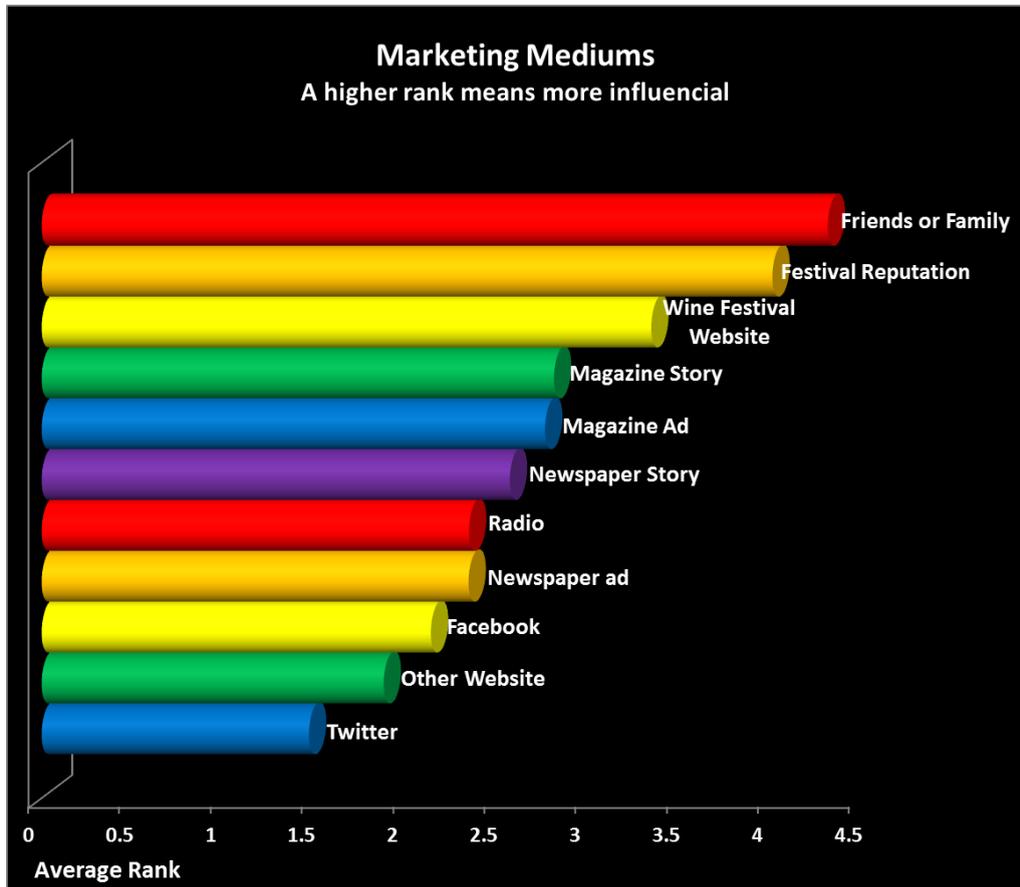
Conclusions

Those already in attendance at an Okanagan Wine Festival unanimously claimed that they intended to attend another wine festival, while those who were asked the same question at wineries were more divided. This shows the importance of festival execution and the existence of a strong probability of repeat visitation. With the Okanagan Wine Festivals Society offering two Valley wide Wine Festivals; a winter Festival in partnership with Sun Peaks Resort Municipality; and other Signature Events, it demonstrates the importance of cross promotion to educate and attract wine tourists to attend different Okanagan Wine Festivals and Signature Events.

L. Influence of Various Marketing Mediums, Okanagan Wine Festivals

Respondents were asked to rank various marketing mediums regarding their potential to influence their decision to attend an Okanagan Wine Festival.

Chart 17: Averaged Rank of Marketing Mediums by Influence, Okanagan Wine Festivals



Purpose

This chart shows the averaged ranking of what respondents claimed to be the most influential marketing mediums regarding attendance to an Okanagan Wine Festival.

Conclusions

A good reputation conveyed through trusted family and friends is the best way to market Okanagan Wine Festivals to individuals. This means that the execution of the Okanagan Wine Festivals events is critical to success and that an appropriate amount of resources must be devoted to not only event planning but to execution. It also demonstrates the importance of the website as a catalyst to create awareness and sales. Finally the ranking of stories on the Festivals underlines the importance of “earned” media and the efforts made to plan wine media familiarization trips need to be maintained. Social media was given the lowest ranking by survey respondents, suggesting that advertising Okanagan Wine Festivals through sites such as Twitter or Facebook are likely in the development stage.

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Quality Improvements and International Positioning of Chilean and Argentine Wines

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1. Introduction

The wine industry has become a sophisticated, knowledge-intensive, natural resource-based industry. Over time, this has translated into major quality improvements and considerable technological changes. In light of this, one might be sceptical about the ability of developing countries to enter the market successfully and sustain increased exports. However, trade data clearly show that some developing countries have successfully entered the wine industry, to the point that three of them – Chile, Argentina and South Africa – currently rank among the top ten leading wine exporters.

This paper looks at the cases of Chile and Argentina, adopting a comparative perspective. It addresses a number of key questions: for example, what can explain the fact that the wine export boom unfolded only in the 1980s in Chile and in the 1990s in Argentina and not earlier, as, for example, in California and Australia? Is there evidence to suggest that Chilean and Argentine wine exports have been characterized by an increase in quality and value-added contents over time? Are the (internal and external) conditions under which the Chilean and Argentine wine industries currently compete at the global scale any different from those in the past?

In order to answer these questions, this paper is structured as follows: Section 2 discusses how to define and assess the quality of Chilean and Argentine wines from a methodological perspective. Section 3 discusses the natural assets and competitive cost structure that underlay the successful export performance of the Argentine and Chilean wine industries, as well as the impact of macro-economic conditions at their point of departure. Section 4 assesses the quality improvements introduced in the Chilean and Argentine wine industries over time. Section 5 explores whether such improvements have been matched by an equal improvement of their positioning in the international market. The concluding section questions the long-term sustainability of the export boom of Chilean and Argentine wines.

2. Defining and assessing wine quality: a methodological perspective

Defining and measuring wine “quality” is a challenging task, as the perception of quality is inevitably influenced by subjective, highly idiosyncratic criteria and depends on individual taste, expectations and aesthetic culture (Oczkowski, 2001). The Romans had already recognized the subjective dimension of wine quality in the famous proverb “*quam ob rem de pricipatu se quisque iudicem statuet*” – which means that for what wine is concerned, everybody should rely only on personal judgments (Pliny the Elder, *Naturalis Historia*, book XIV). In more recent times, the most famous quote on wine quality belongs to the reputed American oenologist Maynard Amerine, who claimed that “*quality in wines is much easier to recognize than to define*” (Amerine and Roessler, 1976).

During the last three decades, however, the modern wine industry has been able to clearly quantify some of the components determining wine quality: negative quality factors, such as off-flavors, are scientifically detectable and objectively classifiable; positive quality factors are usually ranked according to a series of codified categories: subtlety and complexity, balance and harmony, duration, aging potential, stylistic purity, varietal expression. Moreover, one should consider that, despite their clear limitations, quality indicators, such as those just mentioned, are reflected in both ranking by experts and consumer acceptance statistics (Jackson, 2008).

In this context, the widely diffused and highly criticized 100-point scale invented more than thirty years ago by Robert Parker has been defined as “*a precision assessment tool that offers consumers certainties in an uncertain world*” (Brook, 2000).¹ In his newsletter *The Wine Advocate*, Robert Parker regularly judges the wines he tastes, awarding them points based on the scale out of 100. The underlying assumption of Parker’s scale, which has become the dominant force in the wine world, is that a professional assessment of wine quality is possible. Also in Europe, Parker’s writings have had a tremendous influence on the winemaking community, and especially on premium wine producers. According to Beazley (2000): “*The financial implications [of Parker’s writings] are so significant that no European fine-wine producer can afford to ignore them, making him a stylistic dictator*”.

At the same time, however, many wine critics are increasingly unsympathetic towards the “Parkerization” of the wine industry worldwide, and in particular, towards the convergence on a pronounced wine “oakiness” and high alcohol contents as a global style of winemaking, irrespective of the characteristics and the importance of local *terroir* (McCoy, 2006). This is even more significant, considering that Parker’s scale has traditionally refers to higher-priced premium wines only, and has not included either ordinary table or bulk wines until 2009, when he published a guide of wines priced under 25 US\$ (Parker, 2009).

It should be recalled here that wines are internationally classified based on alcohol concentration. These are still, sparkling and fortified wines.² Still wines, which account for 88 percent of the market, are divided into basic and premium wines. In general, premium wines are made of high oenological quality varieties of French origin and are usually sold bottled, rather than in bulk as most basic wines are. High oenological quality varieties include grape varieties – such as Cabernet Sauvignon, Merlot, Pinot Noir, Cabernet Franc, Chardonnay, Sauvignon Blanc – which are particularly appreciated by international consumers and, therefore, dominate the world wine export markets (see Table 1).

¹ Parker’s scoring system starts with a potential of 50 points. The wine’s general color and appearance can earn up to 5 points. Aroma and bouquet can earn up to 15 points, depending also on the wine’s cleanliness. The flavor and finish can earn up to 20 points, depending also on the wine’s depth and length on the palate. Finally, the potential for further evolution and improvement through aging can earn up to 10 points.

² The alcohol content of still and sparkling wines ranges between 9 and 16 percent by volume. The third category, that of fortified wines, ranges between 16 and 22 percent by volume. Sparkling wines (dry or sweet) include, among others, the French champagne, the Italian spumante, the Portuguese *viño verde*. Fortified wines include, among others, marsala, vermouths, ports and sherries.

Table 1. High quality oenological grape varieties of French origin

Red varieties	Cabernet Sauvignon, Carmenère, Malbec, Merlot, Pinotage, Pinot Noir, Sangiovese, Syrah, Tempranillo, Zinfandel
White varieties	Chardonnay, Chenin Blanc, Pinot Blanc, Sauvignon Blanc, Sauvignon Gris, Sémillion

Source: OIV, 2010

Premium wines also follow the rules of **appellation control or geographical indication**, while basic wines normally do not (Johnson, 2007). In the wine industry, the concept of quality is increasingly associated not only with the presence of high oenological quality grape varieties, but also with the concept of *terroir*, namely the idea that quality is linked to “an origin of some kind” (Trubek, 2008). The French term *terroir* is presently used in the specialized literature to define the characteristics of a determined viticultural site in terms of soil, weather conditions and farming techniques, all contributing to the unique qualities of the wine. According to Hugh Johnson (1998), the reason why wines taste differently is that the composition of the soil where grapes are grown may vary drastically, much as everything above the surface does.³

The attempt to codify what Trubek (2008) has defined as “the taste of place”, connected to the idea of quality, dates back to the 1930s, when France introduced the AOC (*appellations d'origine contrôlées*) or appellation control legislation in order to protect French wines from a growing international competition, namely a legally defined and protected geographical indication system which identifies where the wine grapes are grown. As early as 1855, however, the establishment of the renowned Bordeaux wine classification system introduced the idea that a scientific approach to the local *terroir*, as something that could be known and studied, was not only possible but also desirable from a marketing perspective (Rohel, 2010).⁴

Currently, in some wine producing countries, especially in the New World, the appellation control legislation is limited to aspects of geographic origin and varietal authenticity. In others, especially in the Old World, it regulates grape varietal use, dictates production procedures, prohibits certain vineyard practices (such as irrigation), limits maximum yields and specifies maturation conditions. Such more rigid practice is meant to assure both quality and stylistic authenticity, but there is a wide debate on whether highly constraining appellation control systems, rigorously adopted in Europe really succeed in doing so, and on whether quality can more generally be guaranteed by law (Jackson, 2008).

Despite some notable exceptions, there is no doubt that the overarching international context and the regulatory framework, negotiated internationally and defining the product,

³ In this respect, he argues: “Properly understood, the concept of “terroir” means the whole ecology of a vineyard, every aspect of the surroundings, from bedrock to late frosts and autumn mists, not excluding the way the vineyard is tended, nor even the soul of the vigneron” (Johnson, 1998, p. 4).

⁴ In the 1855 classification, a five-group hierarchy was established for the best wines of the Medoc region, based on price. Despite its longevity and popularity, however, several recent studies have pointed to the obsolescence of this classification. According to Lewin (2009), for example, only one third of Medoc wines would currently belong to the same group as in 1855, if they were reclassified based on their average prices over the past decade.

its ingredients and its geographical origin, have played a major role in shaping wine quality standards. The changes in product characteristics towards rising value-added content are clearly reflected by the range of increasingly differentiated prices at which wines are sold on the market. International consumers tend not only to pay higher prices for bottled, high quality premium wines than bulk wines, but also to distinguish several categories of premium wines, such as icon-premium, ultra-premium, super-premium and premium wines (see Table 2). This reflects the reality of an extremely diversified product, which, at the cheap end of the market, can be considered a relatively ordinary, affordable beverage and, at the highest end, a luxury, positional good (Archibugi, 2007).⁵

Table 2. Wine quality segments based on price ranges

Category	Quality segments	Definition	Price range US\$/bottle	Main characteristics	Geographical indication
Premium Wine	Highest quality standard in the premium Category	Icon-premium Ultra-premium	>100 50-100	Consolidated image over time; complexity and aging potential; excellent reports by critics	Wines come from geographically defined and limited areas. In the Old World, they also have to follow specific rules regarding the grape variety, alcohol content, yield, pruning, etc.
	Intermediate quality standard in the premium category	Super-premium	20-50	Recognizable brand; complex structure; good reports by critics; richness and character.	Wines come from geographically defined and limited areas. In the Old World, rules are less strict than those governing the highest segment
		Premium	8-20		
Basic wine	Lowest quality standard in the premium Category	Popular-premium	5-8	Recognizable varietal characteristics; fruity flavour; easy to drink	The standard of the wine varies with the region, the grape variety and the year. Governing rules are soft
		Varietal-premium	3-5		
Basic wine		Bottled table wine	1-3	Varietal; simple structure; not much character	No geographical indication rules
		Bulk wine	<1	No brand; no restrictions; simple structure	

Source: Author's elaboration based on Rabobank, 2007

⁵ Plenty of evidence shows that international premium wine prices are strongly correlated to Parker's ratings, namely that changes in ratings for the same wine result in large price changes (Gibbs et al., 2009; Hadj Ali et al., 2008). Price elasticity with respect to ratings has increased considerably since 1993, in parallel to the increased globalization of the premium wine market (Gibbs et al., 2009). This is due to the increased proportion of "naïve" (vs "sophisticated") consumers that globalization has brought into the market, and who rely on reputational information rather than their own personal taste and quality assessment to purchase premium wines.

The solidity of the current position of Chile and Argentina as leading wine exporters actually opens up a series of interesting questions about the determinants of the export boom of their wine industries, their different performance over time, and the extent to which their increased exports have been characterized by increased quality and value-added, or have been confined to the low-end of the quality spectrum. It is worth remembering that, until a few years ago, the Argentine wine style was totally unattractive to international palates, and wine was produced in massive quantities for a particularly healthy but indulgent domestic market. In this respect, Stein (2004) claims:

The wines made during the 1970s for the Argentine taste were heavily coloured, alcoholic beverages of thirteen percent or more degrees and were often oxidized in flavour as a result of exposure to varying amounts of air after fermentation. Many producers stabilized their wines with boiled must, producing a sweetish drink with similarities to poor quality Sherry. Boiled must was not the only thing added to wine: the practice of watering wines, initiated during the early years of the industry, continued to occur fairly frequently according to contemporary observers (Stein, 2004, p.11).

Analogously, until the 1970s Chilean wines were confined to the niche of decent-but-not-great wines, and were often criticized as boring and monotonous, based on the limited number of varieties cultivated and the relative homogeneity of their taste (Robinson, 2001). In this respect, Robinson (2005) argues:

Chile's golden age was the end of the nineteenth century, when the rest of the wine world had been crippled by phylloxera, and this isolated wine producer could supply almost limitless quantities of healthy, deep-coloured wines [...] For the next hundred years there were very few changes in the vineyards and cellars of Chile. Professionals visiting the country in the late 1970s were quickly frustrated at the oxidized style of wines bottled for the local market. This tended to favour very fruity wines, lower in tannins and higher in acidity, very far from what foreign buyers would ever like (Robinson, 2005, p.134).

From the above, it becomes clear how the export success of the Chilean and Argentine wine industries was far from predictable, and how crucial it is to investigate whether their successful export performance was a natural extension of earlier practices, or rather the result of radical changes in product and process techniques that led to tangible improvements in product quality over time. In order to understand whether the recent export boom of Argentina and Chilean wines was based on a constantly increasing product quality, or whether only quantity increased and quality levels deteriorated or remained unchanged over time, a series of proxy indicators of wine quality specified below will be used (see Table 3). These will assess the progress (or lack thereof) in the achievement of **product differentiation** of Argentine and Chilean wines, as well as the progress (or lack of) in the **positioning in the international market** of Argentine and Chilean wines. Before doing that, however, some clarification on the natural and historical conditions of departure of the export boom of Chilean and Argentine wines are provided.

Table 3. Selected indicators to assess quality improvements of Chilean and Argentine wines

Area	Quality indicators	Relevance
Product differentiation	Replacement of low quality grapes (the País or Criolla variety), with high quality grapes of French origin	Due to its adaptability to all climatic conditions, the País or Criolla grape has been for centuries the most common vine cultivated in both Chile and Argentina. Given its poor oenological quality, it is only suited for inexpensive, domestic wine consumption
	Identification and valorization of a typical, emblematic variety (such as Zinfandel in California, Tannat in Uruguay, or Pinotage in South Africa)	The identification of an indigenous variety is very important for strengthening the international recognition of a national identity and for differentiating from foreign competitors
	Introduction of zoning practices of main winemaking areas and designation of origin regulations	A reliable appellation system is considered synonymous with high quality almost everywhere in the world and is a key asset for strengthening international reputation.
Positioning in the international market	Rising export unit values	An increase of export prices generally reflects the higher quality of the products being offered. Changing economic conditions, however, may also have an influence
	Increased exports to demanding markets of destinations	Until the 1980s, both Chilean and Argentine wine exports were concentrating in Latin America, a market traditionally demanding lower quality wines than, e.g., Europe or the United States
	Better international ranking over time	Global competition in wines is very pronounced. Serious investment in marketing strategies and branding usually results in increased international recognition and ranking in international competitions

Source: Author's elaboration

3. Conditions of departure of the export boom

When analyzing the recent export boom of Argentine and Chilean wines, compared to other Latin American countries – such as Peru, Ecuador or Bolivia – it is striking to note how unanimously the specialized literature on the subject considers the natural and climatic conditions of Chile and Argentina ideal for vine cultivation – with this also being a common topic in the local and international press.

The key and most-publicized viticultural advantage of Chile is the absence of pests and diseases, such as oidium and phylloxera. In order to survive, the Europeans had (and still have) to graft their vines onto resistant American rootstocks, which inevitably alter the flavour of the wine. Chileans are the only producers in the world who can plant phylloxera-free vines, since the typical French varieties were imported into Chile in 1851, thereby fully

preserving their identity and original taste until the present day (to the point that international agronomists have proposed including them in UNESCO's World Heritage protected patrimony). Another commonly recognized viticultural asset of Chile is related to the country's very favourable natural conditions: climate (limited precipitation, high levels of summer sunshine and great luminosity, moderate temperatures, light winds), soil composition and types (mostly poor in organic matter and well-drained) and geography (splendid natural barriers that completely isolate the country – the Andes Cordillera to the East, the ocean to the West, the Atacama desert to the North, the Antarctic to the South) make Chile the ideal place to produce quality wines.⁶

Contrary to Chile, Argentina is characterized by more delicate climatic conditions. Climate is more unpredictable than in Chile, with spring frosts and summer hails. However, from a more qualitative point of view, Argentina has a more diversified *terroir* and a broader range in the latitude of planted vineyards (from the cool lowlands of Patagonia in the South to the high altitudes of Calchaquies Valley in the far North) than Chile, California, Australia, or any other New World producer (*Austral Spectator*, 2004).⁷ In particular, the wide range of climatic conditions and the presence of high altitude plains with cool climates are considered a real asset for the production of quality wines (Arkell, 1999). They are at the origin, for example, of the production of more than 50 grape varieties, including the red Malbec and the white Torrontés, which represent the two typical and internationally recognized Argentine specialties, as will be seen in more detail in the following sections.

As a matter of fact, Chile and Argentina are both considered a sort of "viticultural Nirvana" where grapes can achieve slow maturation and a perfect equilibrium of sugars, tannins and acids (see Table 4). Additionally, land and production costs are comparable, and are lower with respect to their direct competitors, such as Australia, California and New Zealand (Rabobank, 2007).

Table 4. Strength of basic production factors in Chile and Argentina

	Chile	Argentina
Geography	Isolation (no phylloxera, few diseases) Wine growing regions between latitudes 33° and 27° South from Atacama desert to Tierra del Fuego)	Different regions and altitudes (from Salta to Patagonia) Very high average altitude of vineyards - 2,700 ft (intense sunlight, cold nights, dry mountain air)
Climate	Four clearly differentiated seasons Little rain in spring and almost none in summer and autumn Cold winters but low incidence of frost in spring Intense light (adds flavour)	Intense light (adds flavour) Abundant water High plains with cool climate Well-defined winters, hot summers Little rain (but abundant melting snow from the Andes allows irrigation when required)

⁶ Chile is divided into 13 administrative regions (I-XII from North to South), plus the Metropolitan Region, including the capital city, Santiago, and its surroundings. Grape growing for wine production currently takes place in one third of the territory and in 7 of the 13 Chilean regions.

⁷ Argentina is a Federal State and is administratively organized into 24 provinces and the Autonomous City of Buenos Aires, the Federal Capital District. Wine grapes are grown in 13 of the 24 provinces, and in 8 of them viticulture represents an economically meaningful activity.

	Abundant water from the Andes No need of reservoirs for irrigation Numerous microclimates Wide thermal range	Ample sunshine Few diseases No much wind, except Patagonia No hail, except Mendoza
Land	Relatively cheap land (approx. 20,000 US\$ per hectare)	Abundant and cheap land (approx. 16,000 US\$ per hectare)
Raw materials	Little use of pesticides Presence of pre-phylloxera vines, no American rootstocks Mainly drip irrigation Totally ungrafted vines	Little use of pesticides 50% of vines are more than 25 years old Mainly flood irrigation Mainly ungrafted vines
Labour	Low unskilled labour costs Easily available manpower	Low unskilled labour costs Easily available manpower
Firm gate price /litre	0.30-0.40 US\$	0.40-0.50 US\$

Source: Author's elaboration based on Rabobank, 2006 and 2007

As seen in the table above, both Chile and Argentina rely on very favourable natural conditions for wine production, as well as on a series of competitive basic production factors, such as low cost of inputs (e.g., limited use of pesticides and use of ungrafted vines), cheap labour and abundant land. Therefore, it is not as surprising that both countries have become successful wine exporters, nor that they are performing better than other Latin American countries. However, such favourable characteristics have always existed as a point of departure and have represented a structural comparative advantage for centuries. Besides, they can also be found in less successful wine producing developing countries, such as Uruguay and Brazil (Benavente, 2004). Thus, none of these factors alone can fully explain why Chile and Argentina have suddenly succeeded in competing in an increasingly sophisticated industry, where a few established producers – such as France, Italy and Spain – have dominated the international market for centuries.

The timing of the recent entry of the Chilean and Argentine wine industries into the international market can be directly related to a series of conjunctural socio-economic factors, namely to the process of trade liberalization and market opening that characterized the early 1980s in Chile, and the early 1990s in Argentina, as well as to those countries' transition to democracy. Their delay with respect to other New World producers can be ascribed to a turbulent political climate, unstable macroeconomic conditions, economic recession and social unrest under the dictatorship of Pinochet in Chile (1973-1988) and the military regimes consecutively led by Videla (1976-1981), Viola (1981), Galtieri (1981-1982) and Bignone (1982-1983) in Argentina. These factors prevented both countries from attracting foreign investors, modernizing and competing in a timely manner compared to other New World producers.

In Chile, not before the 1990s, with the end of the dictatorship, did foreign investors show a renewed interest in the potential of the Chilean economy and its fertile natural conditions, and were reassured by the results of the more “pragmatic”, export-led model to promote economic growth (Stiglitz, 2002). Measures such as the Liberalization Decree on

Foreign Investment was introduced by the military government in the second half of the 1980s, with the aim of promoting economic recovery. However, tangible positive results came about only after democratic elections were finally held, resulting in the election of President Patricio Alwyn. With the transition to democracy, the introduction of export subsidies, better control of the financial system and the stabilization of both inflation and interest rates, the wine revolution could finally take off. Thanks to the arrival of foreign investors, the trend towards a drastic uprooting of vines that had characterized the 1980s, and the progressive replacement of vineyards with pines and eucalyptus trees for the expanding wood-processing industry, could be completely reversed. In 2000, the total amount of planted land could rise again to 103,876 hectares, the same level as in the 1950s, representing an 81 percent increase in only five years.

The same is true for Argentina, even though, with respect to Chile, the Argentine wine industry entered the world market with approximately ten years delay. This can be ascribed to a prolonged turmoil of political nature, as well as to the radical changes and instability that characterized Argentina's macroeconomic setting differently from Chile, especially considering that until 1989 a strict import substitution policy kept the Argentine internal market, including that for wine, fully protected. After 1991, a drastic trade liberalization and privatization process took place, led by President Carlos Menem and symbolized by the Deregulation Decree Nr. 2284, and by a radical monetary reform which pegged the Argentine peso to the US dollar – a policy which put an end to a long period of financial instability and hyperinflation but culminated ten years later in a 140 billion US\$ external debt default and a devastating financial crisis. Paradoxically, however, the wine industry was one of the few industries that performed greatly during the decade of the 1990s, and also one of the few exceptions during the 2001-2002 financial crisis, as both local and foreign companies continued to expand and increase their operations despite four years of uninterrupted recession.

Both in Chile and Argentina, therefore, the impact of political changes and macro-economic conditions on the expansion of the wine industry has been undeniable. Contrary to the past, however, a competitive pricing structure based only on stable macro-economic conditions and static comparative advantages – such as natural resource endowments, low labour costs or the availability of cheap land – was certainly not enough for Argentina and Chile to breach into the international wine market. Under the new circumstances – characterized by the aggressive entry of New World producers, such as California and Australia, and by the defensive-offensive reaction of Old World producers, who have been fighting back to regain lost market shares – upgrading the quality of the wines produced, adapting them to commercial requirements, differentiating the product and meeting international standards and consumer tastes were the necessary conditions for all latecomers in entering the international wine industry.

4. Quality improvements of Chilean and Argentine wines

This section assess to what extent the quality of Chilean and Argentine wine improved over time, and whether such improvements have corresponded to higher perceived value in the international market. It should be recalled here that quality is inherently a subjective, idiosyncratic concept, and thus very difficult to measure. However, in Section 2 a set of

indicators have been identified – relating to both the product characteristics *per se*, as well as its positioning in the international market – aimed at measuring the evolution of Argentine and Chilean wines over time in terms of quality improvements. The indicators include:

- the replacement of low quality grapes traditionally grown in Chile and Argentina (such as País, Cereza, Misión or Criolla) with **high-quality grapes** of French origin, which are more highly demanded by international consumers;
- the identification and valorization of a **typical, endogenous variety**, which is very important for strengthening the national (wine) identity and for differentiating it from foreign competitors with a “symbolic” local specialty; and
- the introduction of **zoning practices** of principal winemaking areas and the designation of origin regulations, which are considered synonymous with quality almost everywhere.

Looking at the market, rather than at the product *per se*, it becomes clear that, in order to track the quality upgrading of Chilean and Argentine wine exports, it is equally important to measure the following variables:

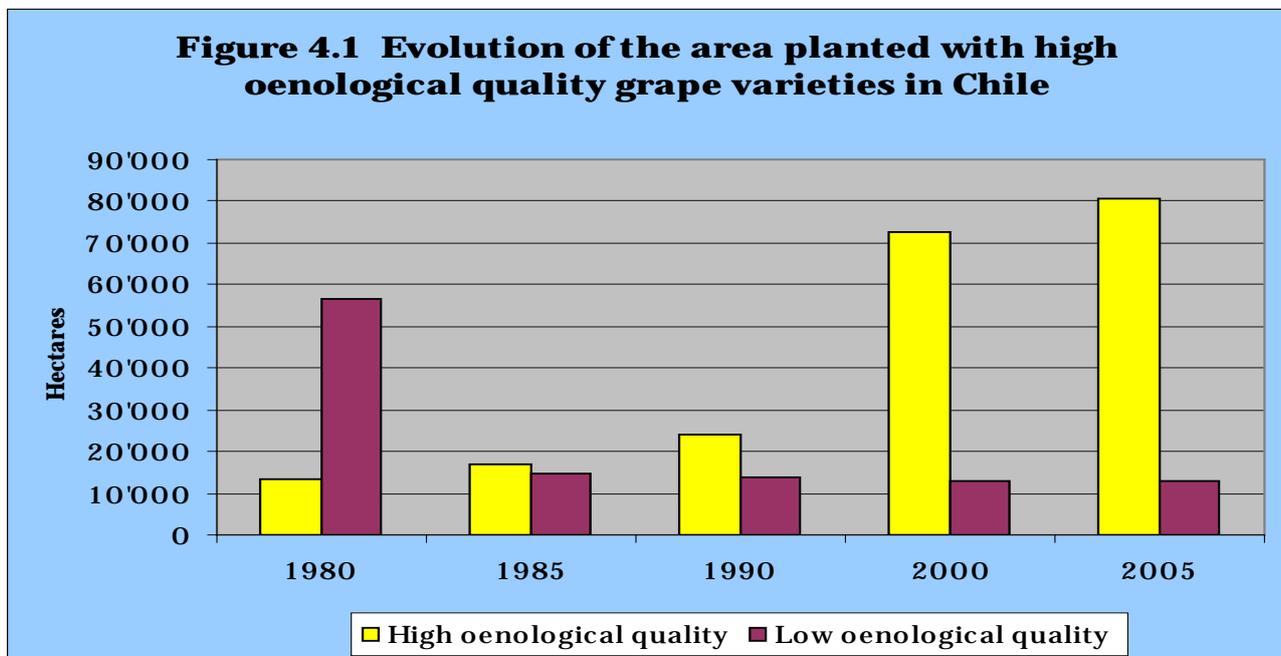
- the **export unit values** trends, which generally reflect the higher quality of the products being offered;
- changes in the **composition of destination markets**, which may be traditionally oriented towards wines of different quality levels; and
- the evolution of **international rankings** over time, as measured in the present case by *Wine Spectator*, which is one the most influential and reputed international wine magazines.⁸

4.1 Replacement of low quality grapes (the País variety), with high-quality grapes of French origin

In the case of Chile, the global trend towards an increase in the consumption of fine wines and the concomitant steep decline in consumption of table wine is reflected in the drastic replacement of the traditional, low-quality wine grape variety (País), with fine French grape varieties required for the production of export wines (see Figure 4.1), namely Cabernet Sauvignon, Merlot, Chardonnay and Sauvignon Blanc, but also, to some extent, Syrah and Pinot Noir (*Wine Spectator*, March 2012). Jancis Robinson, a prominent wine writer who publishes weekly columns in the *Financial Times*, recently argued that, contrary to the past, Chile can now produce not only well-made wines of Cabernet

⁸ Some studies show that the findings don't change if other international magazines, or wine guides, are taken as a reference. For example, McDermott (2005) compared the ranking of Chilean and Argentine wines by *Wine Spectator* and *Wine Enthusiast* from 1993-2003, and found that overall, the weighted scores of the two magazines differed but to the same degree for both countries, thus the ultimate message of the comparative analysis did not change.

Sauvignon and Merlot grapes, but also a “full-throttle Syrah, a surprisingly delicate Pinot Noir, and some of the most interesting old-vine Carignan in the world, as well as a range of competent white wines”. She also argued that “the most exciting thing about Chile is how rapidly its wine scene has been evolving with an ever-wider range of successful grape varieties and newer, cooler wine regions emerging all the time” (*The Financial Times*, 25-26 September 2010).⁹



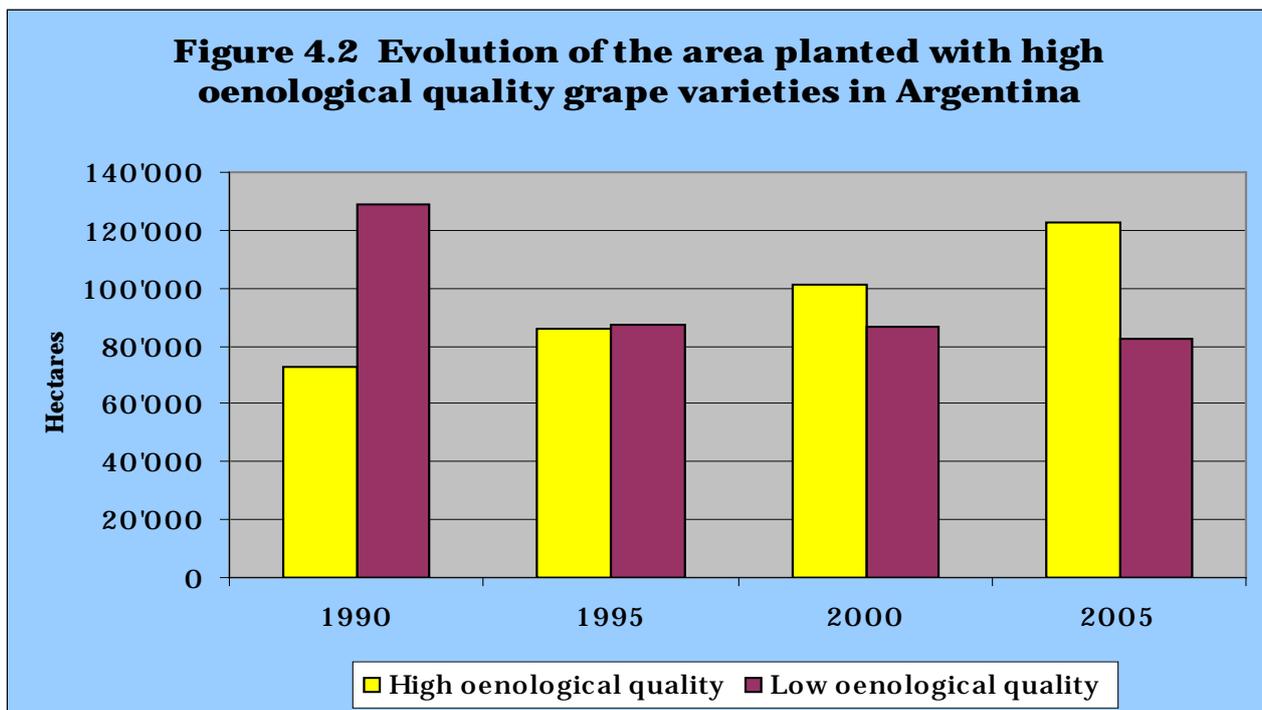
Source: Author’s elaboration based on SAG, 2009

- High oenological quality grapes: Cabernet Sauvignon, Merlot, Syrah, Pinot Noir, Carmenère, Cabernet Franc (red varieties); Chardonnay, Sauvignon Blanc, Riesling, Semillon, Gewürztraminer (white varieties)
- Low oenological quality grapes: País, Misión, Criolla

In the late 1980s, more than 10,000 hectares of vines were replanted in Chile with what are internationally considered high-quality oenological varieties and since then these have largely overtaken the amount of hectares planted with the old País variety. Wine experts argue that some of the best red wines of the Southern Hemisphere come from Chile and are made principally from Cabernet Sauvignon, which is the base of the great Medoc wines (Purdy, 2001). In fact, Cabernet Sauvignon represents the most planted red variety in Chile: in 1997 it surpassed, and subsequently overtook by more than double, the local País variety. Currently, higher quality premium wines are made solely from Cabernet Sauvignon, even though many of these still lack the structure to age and develop in a bottle, which is something most sophisticated wine consumers would normally look for (Robinson, 2005). Chilean super-premium wines, made of an assemblage of red varieties (Bordeaux style) and aged in small oak barrels, have seen their profile being raised uninterruptedly.

⁹ Source: <http://www.ft.com/cms/s/2/e31cb6be-c769-11df-aeb1-00144feab49a.html#axzz22IekHUB8>.

As in the case of Chile, data on the evolution of vineyards' planted area confirm that Argentina is following the worldwide tendency, led by changing consumer tastes, to switch from the massive production of ordinary table wines to a lower quantity but higher value production of premium wines. Although the Criolla grape still represents about half of the country's vineyards, the 1980s were characterized by an intensive eradication process of all grape vines of lower oenological quality (-35 percent) and the 1990s by a stabilization of the vine planted area, as well as by a sustained process of conversion towards international fine varieties. At the end of the 1990s, one eighth of total planted vineyard area had been converted to the production of exportable wine varieties made of high oenological quality grapes (see Figure 4.2). However, besides betting on the traditional French varieties to appeal to international markets, as the large majority of Chilean producers have done in the past, Argentine vine growers have atypically preserved a space for old European varieties such as Bonarda, Sangiovese and Nebbiolo, allowing them to offer a much broader range of wines beyond the "big four" French varieties than any other New World producer. This puts Argentina in the group of wine-making countries with the broadest range of grape varieties in the world.



Source: Author's elaboration based on INV, 2009

- High oenological quality grapes: Barbera, Bonarda, Cabernet Franc, Cabernet Sauvignon, Malbec, Merlot, Pinot Noir, Sangiovese, Syrah, Tannat (red varieties); Tempranillo, Chardonnay, Chenin Blanc, Pedro Gimenez, Pinot Blanc, Sauvignon Blanc, Sauvignonasse, Semillón, Torrontés Riojano, Ugni Blanc, Viognier (white varieties)
- Low oenological quality grapes: País, Misión, Criolla

The stirring of the export potential of Argentine wines is even more interesting, considering that their distinguishing features bring them so far from most New World wines and so close to the European culture that Argentina could be better defined as an atypical, half-way “old” New World producer (Farinelli, 2007; Goldfarb, 2007). Already in 1884, the founder of the modern Argentine wine industry, Tiburcio Benegas, recommended that wine should be made in a European style, namely that of *bourgogne* and *bordeaux*, using fine French grape varieties rather than the widely spread Criolla grape and avoiding all forms of adulteration, quite common at that time.¹⁰ This shows the familiarity of Argentine consumers with assemblage or blend wines of European style, and the fact that, contrary to many other New World producers, the bias towards pure varietal wines was recently introduced by the changing fashion of international markets.

4.2 Identification and valorization of a typical variety

In the Chilean case, special attention needs to be paid to the growth of the Carmenère variety (+104 percent in the last three years), which is becoming more and more the “wine of Chile”. Grown in very few other countries, Carmenère was cultivated and vinified for decades in Chile as Merlot, because of its similar, “plummy” and herbaceous taste. Not until 1994 did Jean-Michel Bourisquot, a French ampelographer¹¹ from Montpellier, suggest during one of his visits to the country that there were strange differences in some of the Chilean Merlot plantations (e.g., darker collared leaves, larger grapes, longer ripening periods). He also suggested that these were not due to the presence of different clones of Merlot but very likely to a totally different variety called Carmenère, which was once known as Grand Vidure and had disappeared from most European countries after the explosion of phylloxera.

At present, Carmenère is almost unique to Chile, with a total of 6,849 hectares planted (see Table 5). After the discovery, some producers tried to deny the evidence, fearing a collapse of their (blended) Merlot sales, but many others quickly understood that Carmenère could become for Chile the equivalent of Pinotage in South Africa, Tannat in Uruguay or Zinfandel in California. In the world, only 4,500 additional hectares are planted in Northern Italy, Napa Valley and Washington State, while China has started a few new plantations of this variety. Carmenère was discovered in 1994 in the oldest winery in Chile, Viña Carmen, which had imported this variety in the 1850s. In 2009, Jean-Michel Bourisquot commemorated the fifteenth anniversary of the rediscovery of Carmenère in Chile, and acknowledged the role of Viña Carmen “*in having given back this variety not only to Chile but to the entire world*” (*Wine Spectator*, March 2010).

¹⁰ According to Stein (2004), from his Trapiche winery Tiburcio Benegas formulated real recipes for what he called imitation Bordeaux and Bourgogne wines. The imitation Bordeaux wines consisted of 75 percent Malbec with 25 percent Cabernet Sauvignon and another kind of Cabernet (Franc?) plus a bit of white Semillon. Imitation Burgundy wines were made of 25 percent Grey Pinot Noir, 25 percent Gamay and a touch of Pinot Blanc and Gamay Blanc.

¹¹ Ampelography (from Greek Αμπελος, “vine” + γραφος, “writing”) is the field of botany concerned with the identification and classification of grapevines. Traditionally this has been done by comparing the shape and colour of the vine leaves and grape berries; more recently the study of vines has been revolutionised by DNA fingerprinting (Source: Wikipedia).

Table 5. Evolution of the planted hectares with high quality oenological grape varieties in Chile, 1995-2005

Grape Variety	1995	2000	2005	Variation 2005/2000	Variation 2000/1995	Variation 2005/1995
Red varieties						
Cabernet			40,441			
Sauvignon	12,281	35,967		+12,44%	+192,87%	+229,30%
Merlot	2,704	12,824	13,142	+2,48%	+374,26%	+386,02%
Pinot Noir	215	1,613	1,361	-15,62%	+650%	+533,02%
Carmenère	-	4,719	6,849	+45,14%		
Syrah	19	2,039	2,988	+46,54%	+10631,58%	+15626%
Cabernet Franc	17	689	1,099	+59,51%	+3952,94%	+6364%
White varieties						
Chardonnay	4,402	7,672	8,156	+6,31%	+6,31%	+85,28%
Sauvignon Blanc	6,135	6,790	8,379	+23,40%	+23,40%	+3658%
Chenin Blanc	106	76	76	0%	0%	-28,30%
Riesling	296	286	293	+2,45%	+2,45%	-2,01%
Semillón	2,649	1,892	1,708	-9,73%	-9,73%	-35,52%
País	15,280	15,179	14,909	-1,78%	-1,78%	-2,43%

Source: SAG, 2009

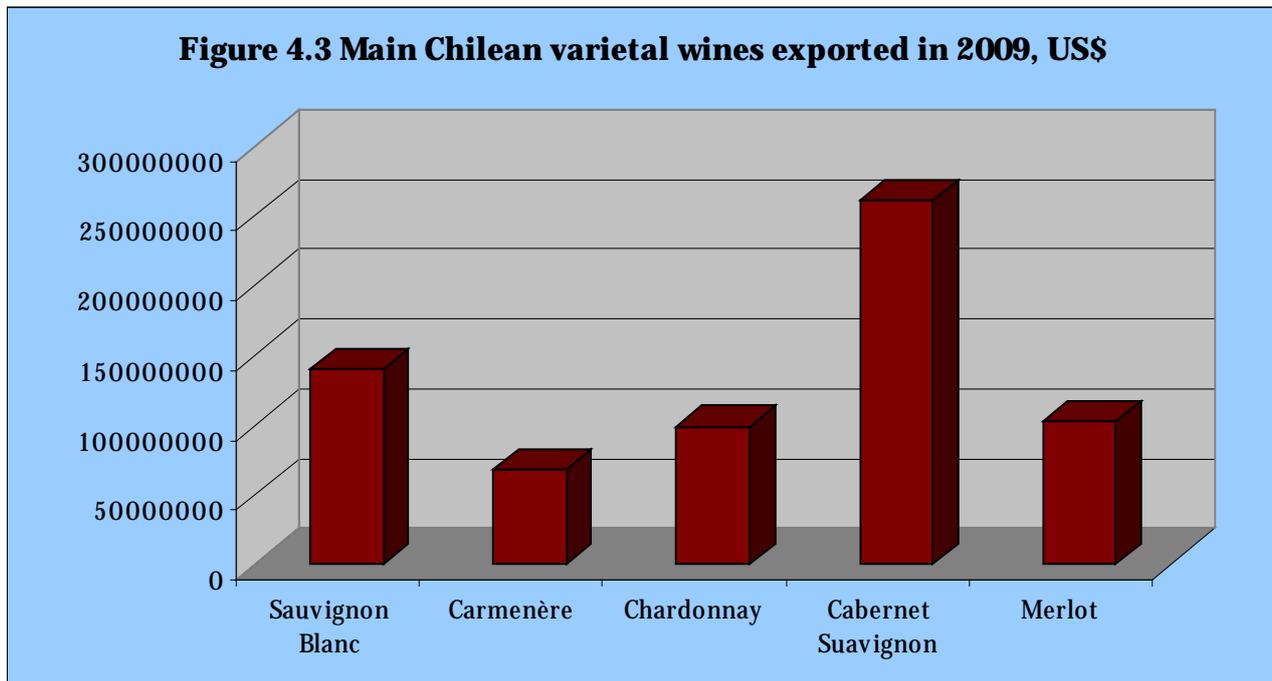
According to data provided by the Chilean Agricultural and Ranching Service (SAG), Carmenère currently represents 25 percent of total Chilean wine exports, and will become the country's icon product within the next ten years.¹² At present, the best Chilean Carmenères are still blended with Cabernet Sauvignon, but many oenologists are trying their best to extract the most attractive taste from this "new" and relatively unknown wine grape. The Chilean Carmenère is now being exported as a varietal alone (see Figure 4.3) and increasingly receiving international recognition. For example, in 2009 the Carmin de Peumo Carmenère from Concha y Toro was awarded 97 points by Robert Parker, in his magazine the *Wine Advocate*.

This success is also due to the remarkable progress Chileans have achieved in identifying the best *terroir* for each variety, namely Maipo Valley for Cabernet Sauvignon, Casablanca and Limarí Valley for Chardonnay, San Antonio Valley for Sauvignon Blanc, Colchagua and Peumo Valley for Carmenère, Leyda Valley for Pinot Noir.¹³ In the past, Chilean vineyards used to be planted in the hottest zones of the central winemaking belt, which begins in Santiago and ends 300 kilometres away to its south. Currently, vines are being planted in cooler areas, especially in sub-regions marked by the ocean's influence, and a detailed mapping of the Chilean viticultural potential, which has been neglected for long time, is

¹² Source: www.sag.cl

¹³ In Chile, there are thirteen wine sub-regions, so-called « Valleys », which stretch from about 400 kilometers north of the capital city, Santiago, down to 650 kilometers south. Within this elongated area, there are several different climate and soil conditions, depending on the proximity of the valleys to the Pacific Ocean, rather than to the Andean mountains or their central position.

finally underway, as the recent commitment of several Chilean institutions and research centers to fill this gap clearly shows.



Source: ProChile, 2010

As in the case of Carmenère in Chile, over the past decade Malbec has become the flagship of Argentine wines. It is derived from French Cot, but has developed distinctive characteristics which, after 130 or 140 annual cycles, transformed it into a truly “endogenous” variety. Currently it represents nearly half of the area devoted to finer varieties, and its importance has been growing uninterruptedly (see Table 6). Malbec is considered by the specialized literature as Argentina’s “winning horse” (*Wine Spectator*, December 2009). The winemaker Nicolas Catena was the first Argentine winemaker who made a premium varietal Malbec for export, in 1994. The forefather of Nicolas Catena, who emigrated from Italy to Argentina in 1898, had planted the very first Malbec vineyards in Argentina in 1902. Until 1989, however, the family winery was known mainly as a table wine producer.

In the 1980s, Nicolas Catena spent a few years in California, as a post-doctoral student in economics at the University of Berkeley. When he returned to Argentina, in the late 1980s, he brought back with him all the lessons and the new ideas about winemaking techniques, vertical integration to acquire more control over the quality of grapes produced, and varietal focus for marketing purposes, which were permeating the Napa Valley. It nevertheless took fifteen years of research at the vineyards and three years of trial-and-errors at the winery before he could bottle the first Catena Malbec. In turn, he successfully experimented with a new, unusual pricing strategy for the Argentine context, which consisted of establishing straight away a high price from the start for all his premium wines, a price that international consumers at the time were reluctant to pay for a wine from the New World (13-16 US\$ rather than the usual 4-6 US\$). His strategy was so successful that Catena Zapata is now selling its Malbec Reserva for more than 100 US\$.

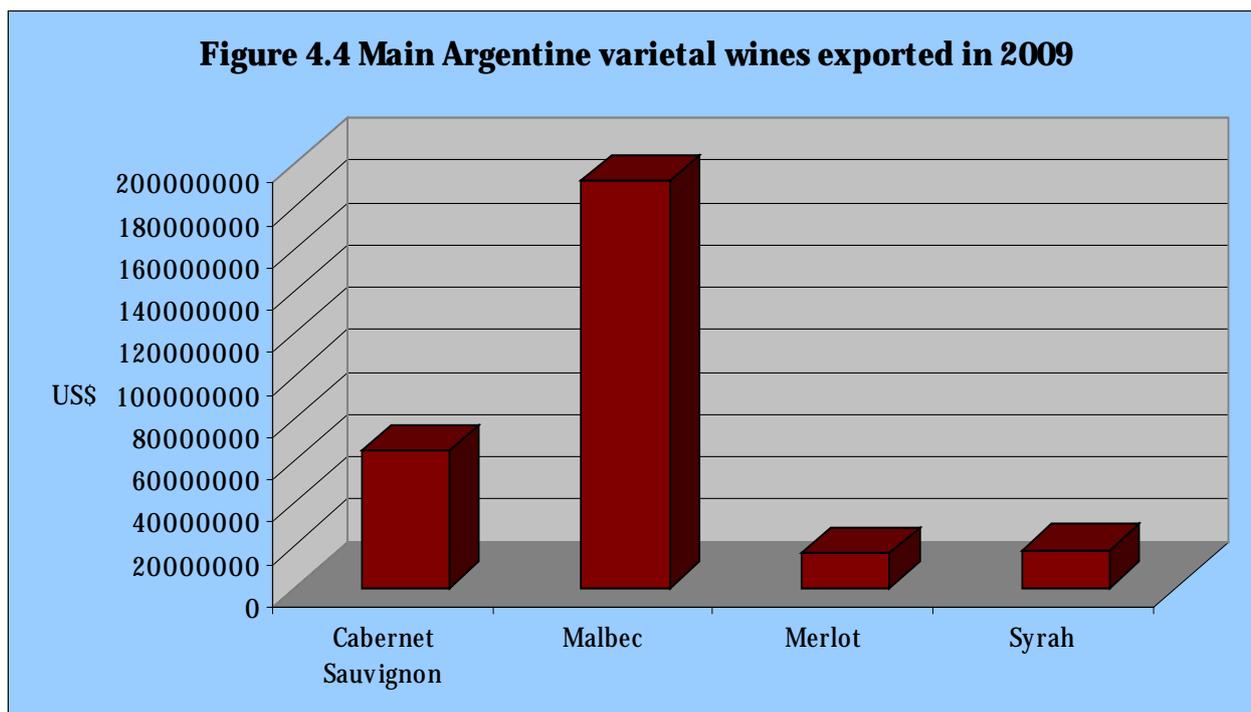
Table 6. Evolution of the planted hectares with high quality oenological grape varieties in Argentina, 1990-2005

Grape Variety	1990	2000	2005	Variation 2005/2000	Variation 2000/1990	Variation 2005/1990
Red varieties						
Malbec	10,45	16,34	21,18	+29,57%	+56,35%	+102,47%
	7	9	3			
Bonarda	12,186	14,98	18,03			
		9	3	+20,31%	+23,00%	+47,98%
Cabernet Sauvignon	2,347	12,199	16,92			
			8	+38,77%	+419,77%	+621,26%
Syrah	687	7,915	11,678	+47,60%	+1051,67%	+1599,85%
Merlot	1,160	5,513	7,371	+33,70%	+375,26%	+535,43%
Tempranillo	5,659	4,335	6,099	+40,69%	-23,40%	+7,78%
Pinot Noir	232	1,047	1,253	+19,68%	+351,29%	+440,09%
Barbera	958	1,061	910	-14,23%	+10,75%	-5,01%
White varieties						
Torrontés	8,625	8,181	8,106			
Riojano				-0,92%	-5,15%	-6,02%
Chardonnay	908	4,525	4,771	+5,44%	+398,35%	+425,44%
Chenin	4,031	3,591	3,027	-15,71%	-10,92%	-24,91%
Ugni Blanc	2,229	2,846	2,603	-8,54%	+27,68%	+16,78%
Semillon	1,255	1,028	988	-3,89%	-18,09%	-21,27%
Sauvignon Blanc	278	827	1,478			
				+78,72%	+197,48%	+431,65%
Sauvignonasse	998	798	713	-10,65%	-20,04%	-28,56%
Riesling	293	156	131	-16,03%	-46,76%	-55,29%
Total	18,617	22,04	21,373			
		7				
País (Criolla)	129,07	87,34	82,44			
	1	7	7	-5,61%	-32,33%	-36,13%

Source: INV, 2009

The increased popularity of Malbec is spearheading Argentine wine exports, and over half of Argentine exported wines are either varietal bottlings of Malbec or Malbec-based blends (see Figure 4.4). Additionally, one quarter of the 600 Malbec wines reviewed by *Wine Spectator* in 2009 received ratings above 90 points, an outstanding result compared to other varieties, especially considering that international consumers are just starting to get familiar with different styles of Malbec, originating from different *terroirs*, namely from the warmer areas in northern Mendoza (e.g. Agrelo and Lujan de Cuyo) to the cooler areas in the southern part (e.g. Tupungato and La Consulta). This shows the immense potential of this variety, in terms of diversification and distinctive styles. In the future, Argentina is expected to further increase its export potential thanks to the growing popularity of its emblematic Malbec grape, to the point that wine experts have predicted that by 2015 Argentine red Malbecs will occupy a “place in the pantheon of noble wines” (Fielden, 2001; Stein, 2004 and 2008; Stein and Zucca, 2005). As the renowned wine critic Robert Parker explains, “*Malbec, a grape long considered challenging and often disappointing in France, produces prodigious wines of great perfume, quality and longevity in Argentina. Malbec is the red wine hope of Argentina*” (Parker, 2005).

Figure 4.4 Main Argentine varietal wines exported in 2009



Source: Pro Mendoza, 2010

4.3 Introduction of zoning practices of main winemaking areas and designation of origin regulations

Another indicator of the commitment of the Chilean wine industry to quality upgrading and diversification is the introduction of the denomination of origin concept. According to Law 464 enacted in 1995, five large wine producing regions have been recognized in Chile, from North to South, corresponding to the same number of regional appellations (*Denominación de Origen*). Within each region, thirteen sub-regions or valleys are distinguished, together with a number of zones for each sub-region. With a great variety of soils and different climates, the valleys (or sub-regions) carry the names that most often appear on Chilean wine labels. In particular, Article 3 of Law 464 establishes that the name of the valley origin can only appear on the label if at least 75 percent of the bottled wine has been produced with grapes that have been cultivated in that valley, and also that only high-quality grape varieties can be certified through the appellation system.

Data show that in 1997 Chile produced 2.4 million hectolitres of wine with denomination of origin, corresponding to 57 percent of total wine production, while ten years later this amount had increased to 7 million hectolitres, corresponding to 85 percent of total wine production (see Table 7). There is clear evidence that Chile is following the international pattern of shifting from the production of table, bulk wines to the production of fine, bottled wines, and progressively increasing the quality of bottled wine produced by following the rules of denomination of origin, which are compatible with the EU regulatory system.

Table 7. Evolution of Chilean wine production with Denomination of Origin

Year	Premium wine with Denomination of Origin		Premium wine without D.O.	Table wine	Total
	Quantity (in hectolitres)	% of total	Quantity (in hectolitres)	Quantity (in hectolitres)	
1997	2,489,287	57,75%	1,330,057	490,905	4,310,249
1998	2,996,983	56,92%	1,443,082	825,438	5,265,503
1999	2,395,729	55,97%	1,318,548	565,874	4,280,151
2000	3,748,213	58,39%	1,956,098	715,063	6,419,374
2001	4,460,397	81,82%	583,290	408,098	5,451,785
2002	4,430,500	78,79%	834,463	358,267	5,623,230
2003	5,460,865	81,72%	947,611	273,745	6,682,221
2004	5,474,888	86,89%	577,173	248,675	6,300,736
2005	6,303,212	79,93%	1,047,796	534,503	7,885,511
2006	7,163,042	84,78%	861,365	424,370	8,448,777
2007	7,038,873	85,04%	879,062	359,525	8,277,460
2008	6,919,658	79,64%	1,331,964	436,552	8,688,173
2009	8,665,659	85,86%	1,152,065	275,198	10,092,923
2010	7,445,528	81,35%	1,271,634	435,222	9,152,384

Source: Author's elaboration based on SAG, 2011

The Chilean system of regions, sub-regions, zones and areas set up by the law ideally tries to emulate the European conception of “denomination”, which would become an integral part of the names of the wines. However, the geographic areas have been identified based on political and administrative criteria, rather than on winemaking ones. It has been argued, for example, that, from a strictly scientific point of view, it would probably have made more sense to trace vertical distinctions rather than simple horizontal ones. The climate (fresher closer to the Andes and to the sea, warmer in the central valleys) is actually one of the most important distinguishing factor of the Chilean *terroirs* (Robinson, 1999). Additionally, the “embryonic” Chilean denomination of origin system is inspired by principles of geographical reference, but includes no other standard regulating harvesting or winemaking practices, as is the case in the European system (Arkell, 1999).

In any case, the Agriculture and Livestock Service (SAG, *Servicio Agrícola y Ganadero*), the government institution dealing with wine control and certification by the Ministry of Agriculture, deserves a special mention for having actively pursued the promulgation of this law and is now acting as a regulatory and control body for its enactment. Chile has been very active also in promoting international wine trade by recognizing the effectiveness of the regulatory systems for wine standards of New World producers. In 2001 it became part of a Mutual Acceptance Agreement on Oenological and Winemaking practices between the governments of the USA, Canada, Australia, Chile and New Zealand, which represents a breakthrough to access new export markets.

The case of Argentina is very different. The denomination of origin law was enacted only in 2004, and is presently applied to three regions only, namely Luján de Cuyo, San Rafael (in

the Mendoza province), and Rio Negro,¹⁴ and to much more limited quantities in comparison to the total amount of DOC wine produced in Chile. Accurate data on the amount of wine vinified with DOC certification is currently missing. However, the recognition of the DOC certification is regulated by rigorous filters and control mechanisms by INV, the National Institute for Vitiviniculture. In fact, the Argentine wine industry is the most tightly controlled of the continent: through INV, the state annually sets the dates for the end of the harvest and the release of the new wines, and it establishes the minimum percentage of alcohol of that year's wines – thereby neglecting some of the most envied and criticized freedoms of the New World, which Chile, instead, has transformed into one of its key competitive advantages.

5. International positioning of Chilean and Argentine wines

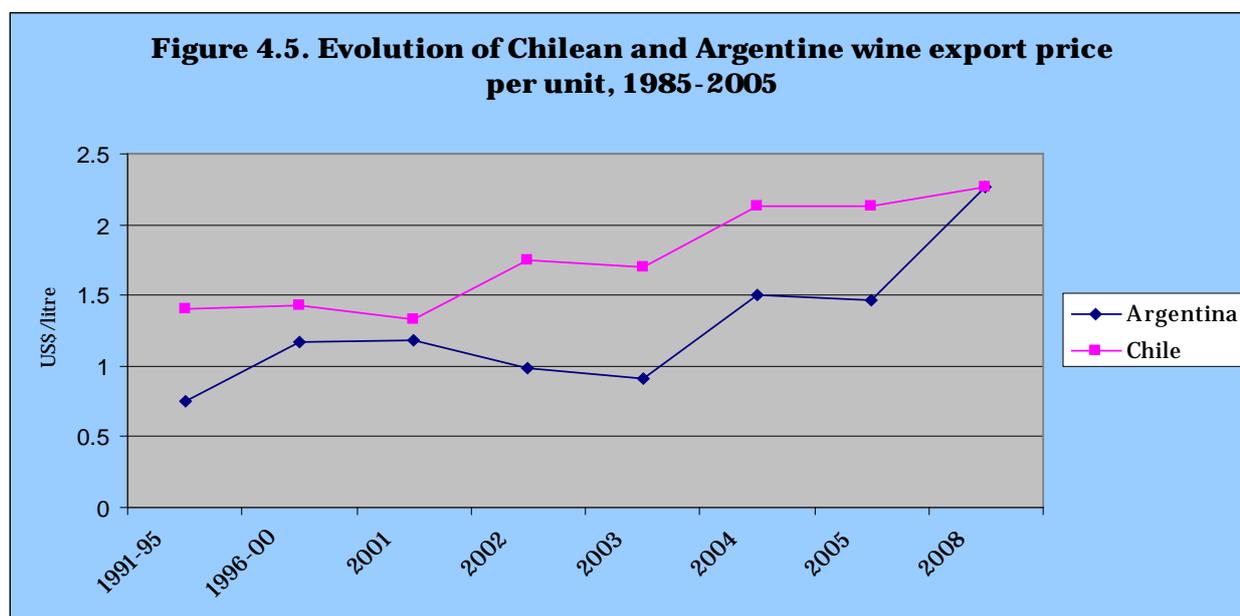
This section assesses whether the substantial efforts put in place to improve the quality of Chilean and Argentine wines, described above, correspond to an equally visible improvement of average prices, international ranking and market outreach over time. From an analytical perspective, these represent also key variables, since in the wine industry the definition of product quality is no longer the exclusive domain of wine producers, and a predominant role is now played by consumers, who are often inexperienced and purchase wines in supermarkets (Cusmano, Morrison and Rabellotti, 2009). As Aylward and Zanko (2006) put it, *“beyond any intrinsic characteristics, the ultimate criterion of [wine] quality is the value perceived by the market”*. For developing countries, as the examples of the Chilean and Argentine industries show, this makes entry conditions even more difficult, as they have to face a twofold challenge: that of increasing the quality contents of their wines, but also that of consolidating their reputation to make sure that international consumers clearly perceive such improvements and are available to reward them with increasingly high prices.

5.1. Rising export unit values

Looking at the composition of wine exports, it emerges that, in 2008, more than 70 percent of the wines produced in Chile were exported. Of these, approximately two thirds were fine wines sold in bottle at 3.64 US\$, while one third were sold in bulk at 0.63 US\$ per litre. On average, Chilean export prices per unit increased over the last years from an average of 1.20 US\$ per litre in the period 1985-90, to 1.40 US\$ in the period 1991-95, to 1.45 US\$ in the period 1996-2000 US\$, to 1.80 US\$ in the period 2001-2005, up to 2.26 US\$ per litre in 2008 (Rabobank, 2009). Contrary to the Chilean case, in Argentina ordinary table wines now represent 30 to 40 percent of all exports and are sold at approximately 0.50 US\$ per litre, while premium wines, which are sold in bottle at 2.40 US\$ per litre, represent more than half of export volume and over 70 percent of export value (see Figure 4.5). This is reflected in the dramatic increase of the **Argentine export price per unit**, which, increased over the last years from an average of 0.45 US\$ per litre

¹⁴ In Argentina, the viticultural zone can be divided into three well differentiated areas due to their natural climatic characteristics and the diversity of their soils: the Northeast area, including the provinces of Calchaqui, Catamarca and La Rioja; the Midwest area, including the Mendoza and San Juan provinces, where the majority of vineyards are concentrated; and the South area, including the Neuquén, Rio Negro and Chubut provinces.

in the period 1985-90, to 0.75 US\$ in the period 1991-95, to 1.17 US\$ in the period 1996-2000 US\$, to 1.20 in the period 2001-2005, up to 2.27 US\$ per litre in 2008, which was marginally above the export price per unit of Chilean wine (Rabobank, 2009).



Source: Author's elaboration based on Rabobank, 2007

Indeed, demanding international consumers have been increasingly receptive towards wine originating from South America, and this allowed Chile to more than double the average price per unit of foreign sales in two decades – a clear indication of the surprising strength of its wine exports in the world market, especially considering that Australia represents its direct competitor. Chile has traditionally exported both bottled and bulk wine. The efforts of many wineries to increase their premium-bottled wine exports are reflected in the expansion of bottled versus bulk wine exports.

It should be highlighted that, in the 1980s, less than 1 percent of the total production was exported in bottles (Alvarado, 2004). The now common 750cc bottles were introduced in Chile in 1964 by a local winery (Concha y Toro). Until then, most Chilean wine was distributed internationally in bulk, in demijohns of 10 litres or jugs of 5 litres. At present, the situation has changed substantially: the quantity of wine exported in bottles has equalled and then surpassed the quantity exported in bulk (it now represents 86 percent of total wine exports) and the price per hectolitre is now 3.7 times higher (see Table 8).

Table 8. Export volumes and prices of bottled vs. bulk Chilean wines

	Wine export volume (litres)		Wine export price (US\$ per litre, FOB)	
	Bottled	Bulk	Bottled	Bulk
2007	364,500,000	352,000	2.99	0.54
2008	370,500,000	218,000	3.17	0.92
2009	382,900,000	279,000	2.89	0.77
2010	426,000,000	275,000	3.00	0.97

Source: US Foreign Agricultural Service, 2010; Viñas de Chile, 2011

The transition illustrated by the table above was far from easy or automatic. Over time, **Chile** has developed the reputation of an exporter of low-priced, good quality, extremely fruity and “clean” varietal wines. Thus, for a long time a few international consumers have been ready to pay 10-15 US\$ for a bottle of Chilean wine. In 2008, almost half of the Chilean bottled wine exported was paid 15-25 US\$ per case, which corresponds to 1.25-2.08 US\$ per bottle (see Figure 4.6). Wine experts argue that Chilean wines tend to receive an inferior price than its competitors, for the same intrinsic value product. In other words, there is a gap between the intrinsic quality (physical, chemical, tasting) and the perceived quality, which leads consumers to pay an inferior price. This is a serious weakness, which involves aspects that go beyond purely quality issues, and increasingly appears to be a matter of image, commercialization, market intelligence and after sale services. Additionally, even though the “classic” French varieties are indeed the most successful at the international level, and an emblematic variety (Carmenère) has been clearly identified, Chile has not yet developed a local style which is strong enough for international consumers to distinguish Chilean wines with enough clarity and originality (Purdy, 2000).

Figure 4.6 Chilean bottled wine exports by price segment, 2008



Source: ProChile, 2010

Contrary to Chile, **Argentina**, has avoided becoming trapped in the niche of good quality cheap wines. Its growth has been slower but it has targeted higher prices since the beginning. Jancis Robinson, the wine critic of the *Financial Times*, recently argued that, compared to Chile, Argentina could offer wines with “a stronger personality and substantially upper along the scale” (*The Financial Times*, 25-26 September 2010). The reluctance of Argentine winemakers to follow marked international trends, as Chile has done very effectively, explains why Argentina does not have a clear image in the export market yet, but in the medium to long term this could be a tremendous advantage, since it will allow the country to produce wines with different varieties and styles. As it can be seen from the table below, between 2007 and 2010, exports of bulk wine diminished drastically (-35 percent), while exports of bottled wines more than tripled. The price of bottled wine increased from 2.77 US\$ per litre in 2007 to 3.35 US\$ per litre in 2010, while the price of

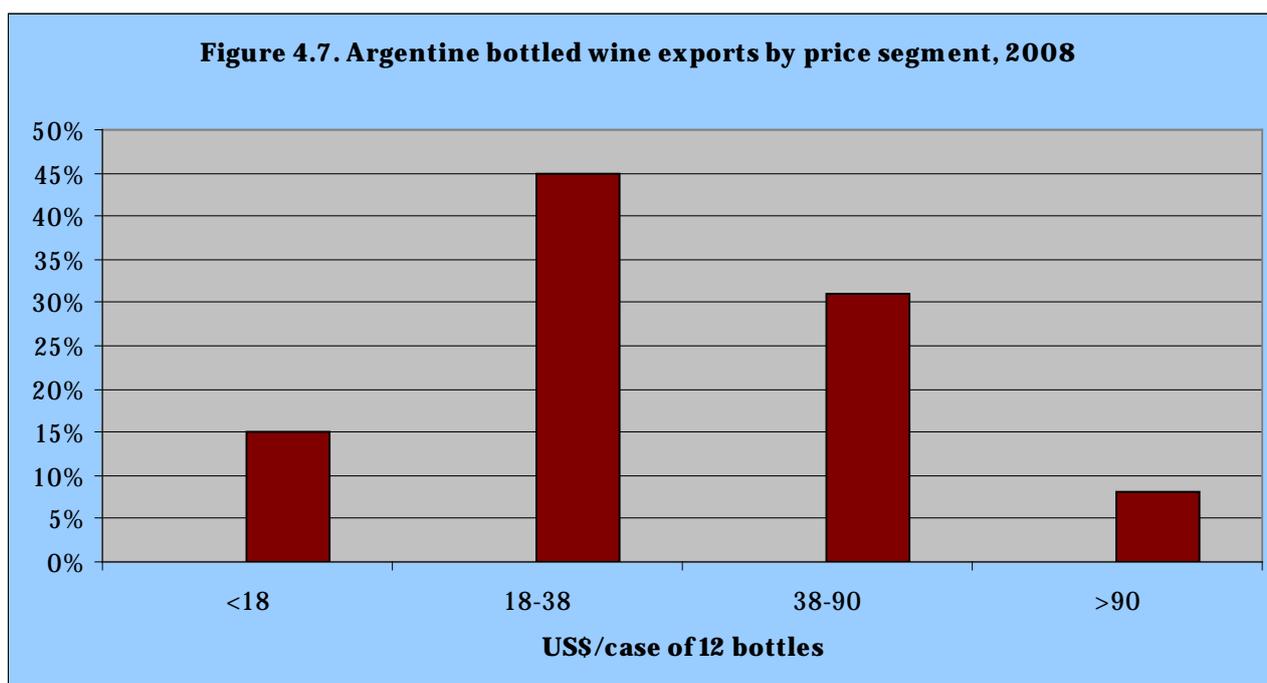
bulk wine increased from 0.34 US\$ per litre to 0.84 US\$ per litre during the same period (see Table 9).

Table 9. Export volumes and prices of bottled vs. bulk Argentine wines

	Wine export volume (litres)		Wine export price (US\$ per litre, FOB)	
	Bottled	Bulk	Bottled	Bulk
2007	63,739,500	68,046,000	2.77	0.34
2008	72,660,000	99,714,000	3.12	0.39
2009	176,891,833	69,078,601	3.12	0.53
2010	193,700,146	44,580,343	3.35	0.84

Source: Wines of Argentina, based on data provided by DGA, 2011

On average, in 2008 half of the Argentine bottled wine exported earned 18-38 US\$ per case, which corresponds to 1.5-3.1 US\$ per bottle (Figure 4.7). This shows that the international prices of Argentine wines are becoming comparable to those of the better known Chilean wines, and that Argentina is becoming known for its ability to produce high-quality wines as well.

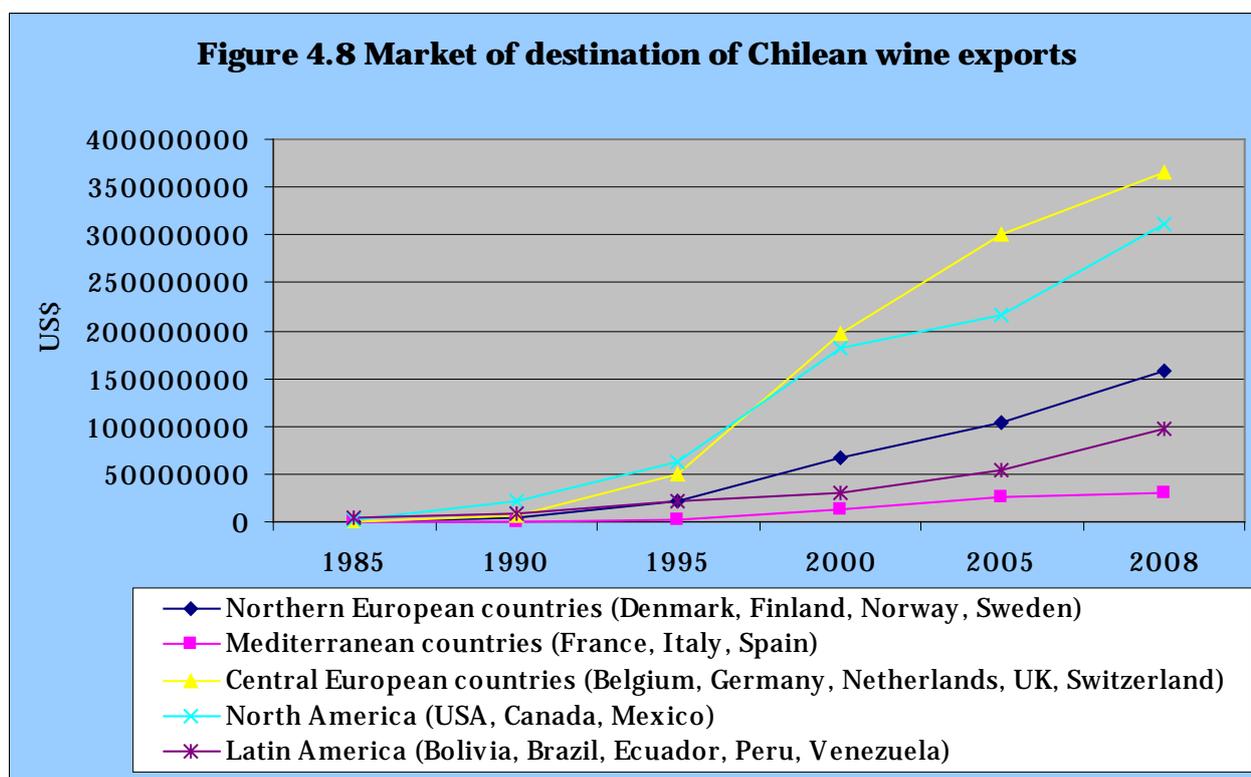


Source: Wines of Argentina, 2010

5.2 Increased exports to more demanding market destinations

In terms of countries of destination, the United States have represented Chile's biggest export market for over a decade, but since 1999 they rank second, after the European Union (led by Great Britain). Canada is the third, but a large part is imported in bulk and bottled locally under names that sometimes do not explicitly recall the Chilean origin of the wine. Since the early 1990s, Chilean wines have received an increasingly enthusiastic reception in Western Europe (especially in Germany, the Netherlands, Switzerland and the Nordic countries), which together represent the destination of almost 50 percent of

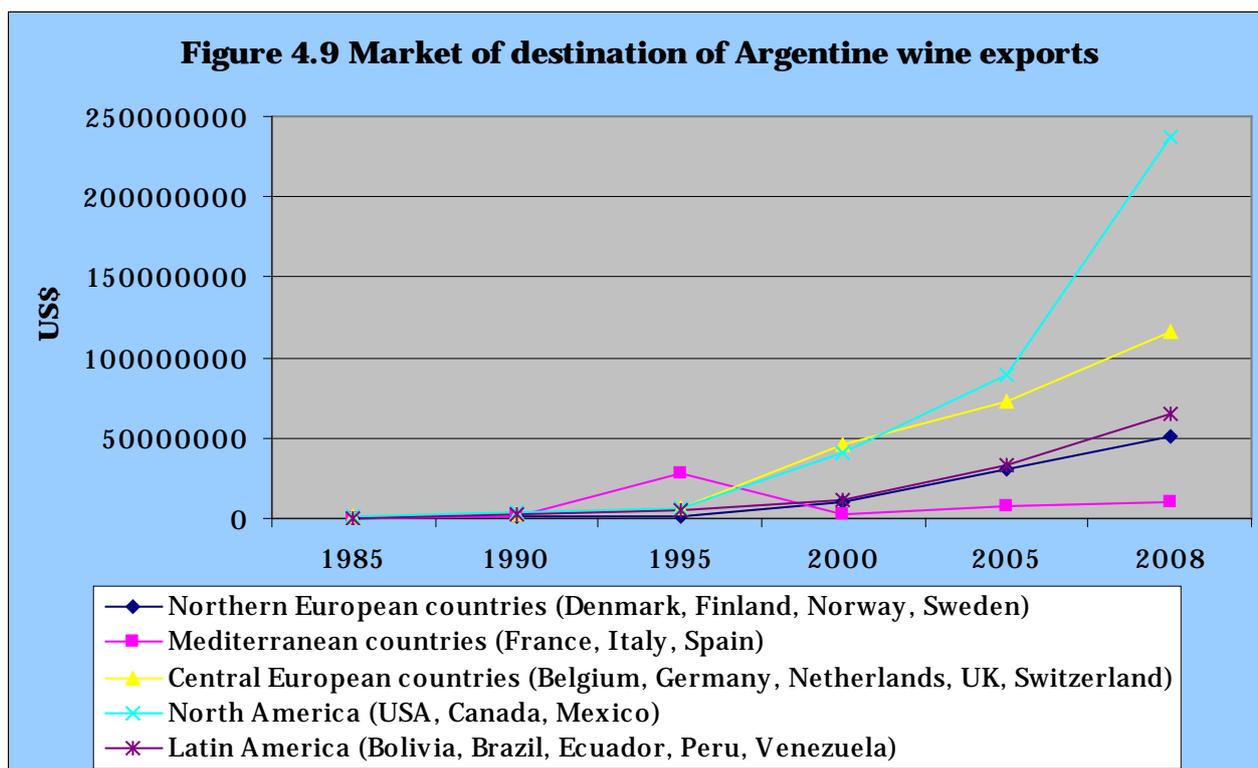
Chilean exports. This allowed a remarkable expansion and diversification of their final market destinations: from 36 countries in 1984, Chile was exporting wine to over 122 countries in 2008. Among these, China has become one of the largest markets for Chilean wines, although this only emerges clearly when looking at figures in terms of volume and not in terms of value. This is explained by the fact that China does not yet represent a sophisticated, discerning market, which would create demand pull effects on quality upgrading. More importantly, as shown by the figure below, there has been a drastic increase in the share of wine exports directed to higher-quality markets (such as Europe and the United States), and a drastic decrease of the share of exports directed to low-level, cheap markets (such as those of Latin America, where Chile traditionally exported the bulk of its sweet, lower quality wines). In particular, in 1985 36.2 percent of Chilean wine exports in terms of value were destined to Latin American countries, while in 2008 this figure had dropped to 7.1 percent. Conversely, in 1985 the percentage of wine exports destined to Western Europe was 3.6, while in 2008 it had risen to 42.3 percent. In 2008, the UK was the main market destination, followed by the US, Canada and Mexico (see Figure 4.8).



Source: Comtrade

In the case of Argentine wines, the industry successfully managed to diversify its exports to different geographical markets. At present, the main importing countries are Great Britain and the United States, followed by Japan and Belgium. This represents an important quality indicator, since in the past, as in the case of Chile, the main importers of Argentine wines were traditionally other Latin American countries which used to orient their imports towards bulk table wine. From 22 countries in 1984, in 2008 Argentina exported its wines to more than 115 countries. Argentina's exports to the United States have grown much faster than, for example, Chile's (see Figure 4.9). In particular, in the period in which

Argentine exports to the US were growing by nearly 80 percent, Chilean exports to the US hardly registered any increase. In 1985, 18 percent of Argentine wine exports were destined to the North American market. In 2008, this figure had reached the top ceiling of 37 percent. At present, the US market alone absorbs almost 30 percent of all Argentine wine exports, driven by an increasing number of US consumers seeking diversity and expressing a clear preference for well-identifiable varietal wines (Stein, 2008). Contrary to Chile, though, the percentage of wine exports destined to the Latin American market has continued to increase over time, and has now reached a ceiling of 10.2 percent.

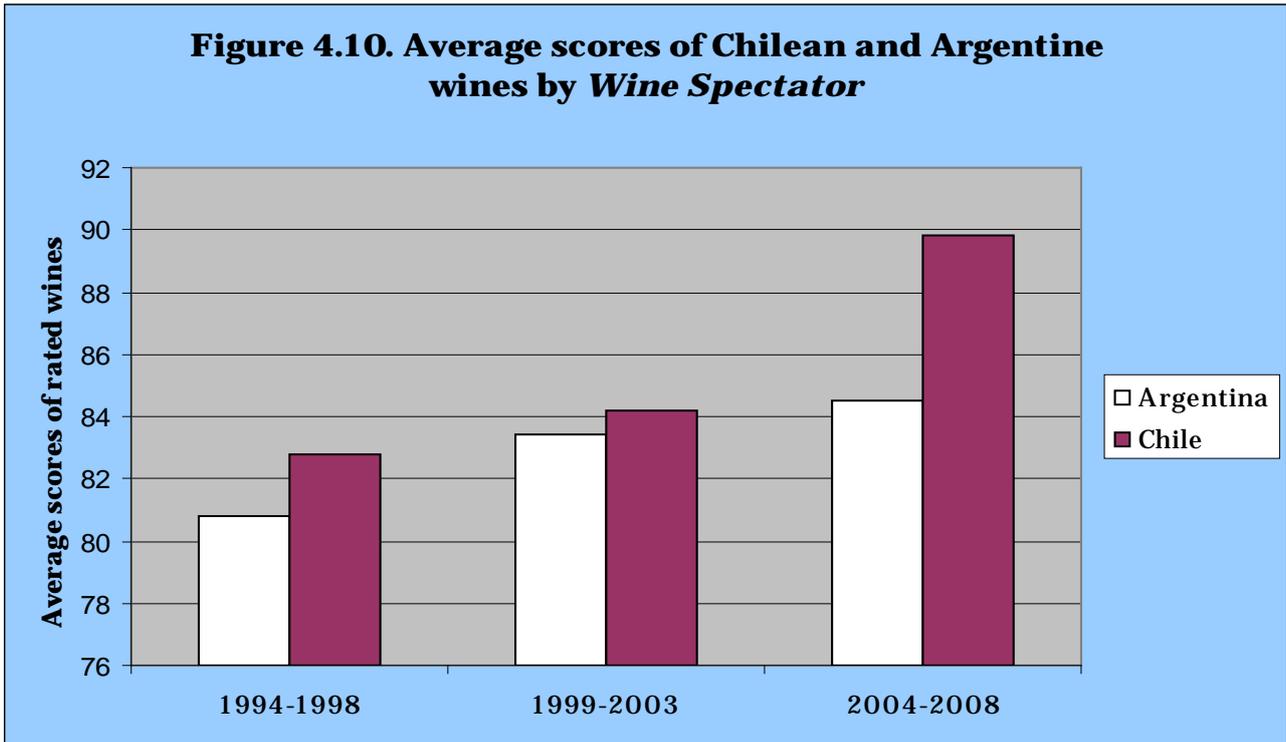


Source: Comtrade

5.3 Better international ranking over time

Data show that the capacity of Chile and Argentina to produce premium and super-premium wine is gradually being recognized at the international level. Their average scores by *Wine Spectator*, for example, have improved substantially over time (see Figure 4.10). In this respect, Agosin, Alvarez and Bravo-Ortega (20102) argue that the wine-country image is fundamental, and that there are important externalities affecting it, either positively or negatively. Chile has certainly benefitted from its reputation as a reliable, organized and stable country, as well from the popularity of other agro-industrial exports such as salmon or table fruits. Compared to Chile, though, Argentina possesses a better country image, and can count on the international popularity of tango, Patagonia and football, as well as on the charm of its capital, Buenos Aires, as symbols of beauty, entertainment and passion. These assets have certainly contributed to mark the positive image of Argentina and to increase the international recognition of its wines.

Figure 4.10. Average scores of Chilean and Argentine wines by *Wine Spectator*



Source: Author's elaboration based on *Wine Spectator* database, 2009

A sign of the growing stature of Chile on the wine world stage is the increased number of not only reserve wines, but also of cabernet-based premium and ultra-premium wines for which international consumers are starting to pay prices normally associated to class Bordeaux bottles. Almaviva, Clos Apalta, Don Melchor, Don Maximiano and Montes Alpha M., are some of the wines that are reputed to justify the price (over 50 US\$), and are identifying Chile as prime-wine producing land, as was the case with California a decade or two ago. The clear sign of this breakthrough is that in 2008, for the first time in history, a Chilean wine, the *Clos Apalta* from Casa Lapostolle, ranked first in the list of the Top 100 wines by *Wine Spectator*, with 96 points (which, as previously explained, are computed based on four criteria: quality, value, availability and passion). *Clos Apalta*, which represents one of the few Chilean super-premium, icon wines, was selected among 19,500 wines reviewed in blind tastings from 14 countries around the world.

Analogously, Argentina is now producing icon and super-premium wines. The top scoring Argentine wines are generally Malbecs. The Achaval-Ferrer Malbec Finca Altamira, for example, produced from old, low-yielding vines located in a cool, high-elevation area of southern Mendoza, received 97 points for several consecutive years and is now valued in the international market at more than 112 US\$. Achaval-Ferrer was also appointed winery of the year by *Wine Spectator* in 2009. This is not an isolated case. Malbecs by Catena Zapata, La Consulta, Bodega Mendel and Viña Cobos, scored above 90 points and are valued on the market at more than 100 US\$ as well. Comparative data related to the ratings of *Wine Spectator* in 2010 show that the international performance of Argentina can now be fully compared to that of Chile (see Table 10) – but also and especially that Argentina is challenging the New World wine producer “trap” by targeting a higher segment of the international market, rather than being caught at its lowest end. The specialized literature, however, suggests that, in order to get to the next level, Argentine

wines should aim to reach the same international recognition of Malbec with other varieties, such as Cabernet Sauvignon, Torrontés or Syrah (*Wine Spectator*, June 2010).

Table 10. Wine ratings by *Wine Spectator*, 2010

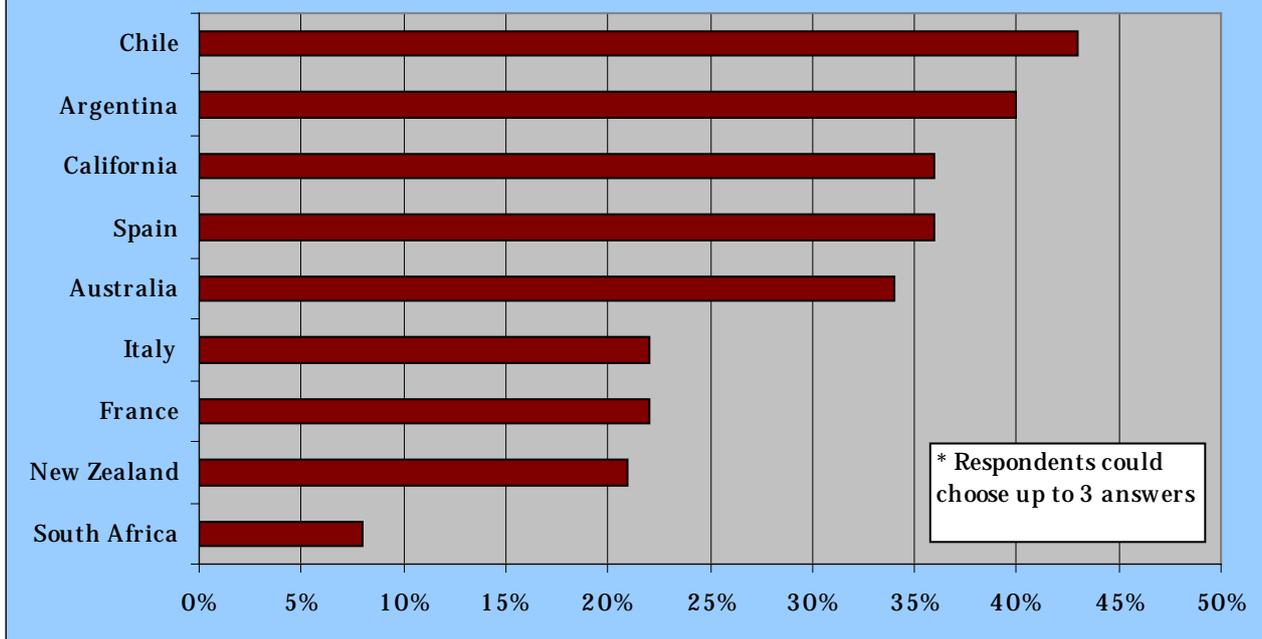
	Number of observations/ Average price	95-100 points	90-94 points	85-89 points	80-84 points	50-79 points
Argentina	624/ 53 US\$	1%	13%	45%	33%	8%
Chile	576/ 42 US\$	0%	12%	52%	31%	5%
Australia	512/ 50 US\$	1%	24%	63%	10%	2%
California	2,758/ 74 US\$	3%	26%	51%	18%	2%
New Zealand	223/ 29 US\$	1%	27%	62%	8%	2%
South Africa	450/ 28 US\$	1%	28%	46%	20%	5%
France	4,084/ 96 US\$	2%	39%	49%	9%	1%
Italy	1,737/ 55 US\$	3%	32%	51%	12%	2%
Spain	932/ 69 US\$	1%	16%	48%	29%	6%

Source: *Wine Spectator*, Jan.-Feb. 2011

The table above reveals, that a large gap still exists between the perceived “quality” of Argentine and Chilean wines as reflected in *Wine Spectator* ratings, compared to other New World and Old World producers, especially in the range of good wines, valued by *Wine Spectator* with 90-94 and 85-89 points. If this represents a weakness of the Chilean and Argentine wine industries that is certainly not easy to overcome, it should be considered that the emergence of élite super-premium Chilean and Argentine wines hardly was a less ambitious challenge, and might well function as a triggering factor to increase the number wines rated in the most valued categories after the top one.

This expectation is reinforced by the results of the periodic survey carried out by *Wine Spectator* in early 2010, with the aim of detecting main trends in wine preferences and buying habits of wine lovers (*Wine Spectator*, October 2010). Quite interestingly, when asked to identify the top three states or countries viewed as the most reliable source of value, South America came out particularly high. As top source for reliable value, 43 percent of respondents chose Chile, while 40 percent of respondents chose Argentina, closely followed by other New World producers such as California (36 percent) and Australia (34 percent). Remarkably, Chile has taken over from Australia the role of provider of reliable and affordable red wines and of fresh and fruity white wines. Among Old World producers, Spain is the only producer who could compete with New World producers, with 36 percent of preferences, followed very distantly by Italy and France, with 22 percent of preferences each (see Figure 4.11). This confirms the rising reputation of wines from Chile and Argentina, and in particular the appreciation of international consumers for good quality, relatively low-priced wines.

Figure 4.11 States or countries considered as most reliable sources for value wines, Wine Spectator Survey, 2010*



Source: *Wine Spectator*, October 2010

In summary, the data presented in this section show that in the last few decades both Chile and Argentina have performed well not only in terms of export growth, but also in terms of quality upgrading and of positioning in the international market. This means that Chilean and Argentine wine production has become increasingly adapted to international taste, and that several improvements occurred in all areas under examination (see Table 11). In the case of Chile, strong progress took place in three areas: the considerable uprooting and replacement of low oenological quality grapes with high oenological quality grapes; the rising trends of export unit values; the increasingly better international ranking achieved by Chilean wines over time. Good improvements were detected in another two areas, namely: the introduction of zoning practices and denomination of origin regulations; and the shift of Chilean wine exports towards more demanding market destinations. Moderate but valuable progress was detected in the identification of a typical variety (Carmenère).

In the case of Argentina, strong improvements were detected in two areas: the identification of Malbec as a typical variety and the shift of Argentine wine exports towards more demanding market destinations, such as the United States. Good improvements were detected in two other areas: rising export unit values and the increasingly better international ranking achieved by Argentine wines over time. Moderate but still valuable progress was detected the remaining two areas, namely the gradual uprooting and replacement of low oenological quality grapes with high oenological quality grapes and the introduction (still at embryonic stage) of zoning practices and denomination or origin regulations, which are very important to penetrate the European market, with the latter lying substantially behind the requirements of the international market.

Table 11. Assessing quality improvements of Chilean and Argentine wine production and exports over time

Area	Quality indicators	Chile	Argentina
Product quality and differentiation:	Replacement of low-quality grapes with high-quality grapes	++	+-
	Identification and valorization of a typical, emblematic variety	+-	++
	Introduction of zoning practices and designation of origin regulations	+	+-
Positioning in the international market:	Rising export unit values	++	+
	Increased exports to more demanding markets of destinations	+	++
	Better international ranking over time	++	+

Source: Author's elaboration

It should also be noted that in none of the six areas under consideration were found truly negative results, even though a few areas were identified where a need for further improvement clearly emerged. In particular, in the case of Chile, these relate to the insufficient valorization of Carmenère as an emblematic variety and, in the case of Argentina, to the still too embryonic adoption of zoning practices and designation of origin regulations and to the slow replacement of the País low quality variety with higher quality grapes. The presence of such persistent weaknesses further validates the hypothesis that, for developing countries, taking advantage of entry opportunities in the wine industry such as wine is increasingly difficult and is mainly based on a continuous process of innovation and quality upgrading (Farinelli, 2013).

6. Conclusions

In this study, the reasons for the belated entry of the Chilean and Argentine wine industries into the global market have been explored, as well as the patterns of the quality upgrading process lying behind it. Solid evidence has been provided to show that increased quality is what allowed Chilean and Argentine wines to get closer to international consumer tastes. It should be noted that this was far from predictable. As a consequence of the deep crisis that occurred in the 1970s in Chile and in the 1980s in Argentina, the quality of their wines had fallen substantially behind the requirements brought about by the evolution of international demand, and exports were concentrated in markets where quality was not important (i.e., other Latin American countries). All this radically changed in the 1980s in Chile and in the 1990s in Argentina, when a huge process of technological upgrading and innovation, with renewed plantations and vast incorporation of new technologies, led to substantial quality improvements, both in terms of product characteristics *per se* and of market positioning.

In particular, this study has revealed that large improvements characterized both the Chilean and Argentine wines, even though to a different extent, as shown in their increased quality, enhanced international ranking and rising export unit value over time. In the case of Chile, the strongest points detected were the considerable uprooting and replacement of low-quality grapes with high-quality grapes and the introduction of zoning practices and denomination of origin regulations. In the case of Argentina, the strongest points detected were the identification of Malbec as a typical variety and the shift of Argentine wine exports towards more demanding market destinations – especially the US. In none of the selected indicators – related to both wine characteristics *per se* and its positioning in the international market – were found truly negative results. From an in-depth analysis, therefore, it appears that the wine export boom in Chile and Argentina has been characterized by three emerging features, signalling a potential discontinuity with other natural resource-related export booms that have occurred in the past:

- Chile and Argentina have managed to penetrate a non-traditional export market largely dominated by well-established and highly competitive producers in advanced countries;
- Wine exports have become highly diversified, their quality has increased remarkably and prices have become more elastic; and
- Local producers have been able to capture increasing rents by climbing the value-added ladder of more sophisticated processing stages.

The key issue addressed in another study carried out by the author (Farinelli, 2013) is related to the long term sustainability of the Chilean and Argentine wine export boom, and to the capacity of these producers to continuously innovate and incorporate new technologies. From an economic development perspective, the ultimate question is whether the wine industry can become a spur to development and a platform for creating deeper competencies and increased knowledge and innovation capacity. Should this be found to be possible, interesting prospects might open up for emerging producers locked in the cheap end of the wine market.

Four wine tourist profiles

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Abstract

◦Purpose

The purpose of this paper is to provide greater understanding of wine tourist behaviour through profiling wine tourists. Demographic segmentation alone is a poor predictor of tourist behaviour (Prentice et al., 1998), whilst there is a general preference for psychographic segmentation. Many studies have evaluated wine region attributes, however, it is important to recognize that the importance of these attributes differ based on the wine tourist profile in question. Profiling also includes attitudes toward wine regions, satisfaction of previous visits and future intentions to visit.

◦Design/methodology/approach

A quantitative approach was used, collecting data from a total of 650 wine consumers within Australia through self-administered surveys and online/email self-administered surveys. Data analysis techniques used included exploratory factor analysis (EFA), and analysis of variance (ANOVA).

◦Findings

Four wine tourist profiles were explored: the wine lover, the wine interested tourist, the wine curious tourist and the disinterested wine tourist. Significant differences were found between the four wine profiles with regard to important wine region attributes, satisfaction and attitudes toward wine regions and future intentions to visit a wine region.

◦Practical implications

The outcome of this research provides greater understanding of wine tourist segments. Profiling wine tourists provides wineries and cellar doors the opportunity to build strong relationships with each wine tourist profile through understanding their expectations of the wine tourism experience.

Key words: Wine tourist profiles, wine region attributes, importance

1. INTRODUCTION

Wine tourism research has consistently increased its development within both academic and industry circles. Much of the research has an applied nature, however it is developing in areas such as wine tourism conceptualisation, wine tourist profiling, and wine tourism destinations (Carlsen, 2004). The focus of this paper will be on further exploration of wine tourists profiles, and determining important attributes of wine regions. Significant differences were found between four wine tourist profiles, that is, between the *wine lover*, the *wine interested* tourist, the *wine curious* tourist and the *disinterested wine* tourist, and wine destination attributes.

2. LITERATURE REVIEW

The focus of this paper is to provide greater understanding of wine tourist behaviour through profiling wine tourists. A brief overview of wine tourists and wine regions will be discussed. Typically segmentation and profiling tourists are based on demographic, socioeconomic and psychographic segmentation. It has been recognised that demographic segmentation alone is a poor predictor of tourist behaviour (Prentice et al., 1998), whilst there is a general preference for psychographic segmentation. Psychographic dimensions include motivation, involvement, attitudes, affect, personality and lifestyles. Many studies have evaluated wine region attributes, however, it is important to recognize that the importance of these attributes differ based on the wine tourist profile in question.

2.1. Wine Tourism

Wine tourism is a form of special interest tourism, and has been recognized as a significant component of both the wine and tourism industries (Hall et al., 2000). Wine tourism is travel based on the desire to visit wine producing regions, or in which travellers are induced to visit wine producing regions, and wineries in particular, while travelling for other reasons (Getz, 2000). During 2009, there were just under 5 million visitors who visited a winery while travelling in Australia. Of these travelers over 4.1 million were domestic visitors and 660,000 were international visitors (Tourism Research Australia, 2010). Wine visitors have had an average growth for the last 5 years of 3%. If comparisons are made to the number of wineries which have emerged over the similar time frame, they have increased an average rate of 37.3% from 1,200 cellar doors in 2000 (Australian Wine and Brandy Corporation, 2006) to 1,647 in 2009 (Winebiz, 2010). Currently there is 2,572 wine companies of which 1,710 with a cellar door (Winebiz, 2012). The majority of wineries with a cellar door are small wineries reliant on domestic travelers for not only wine sales, but also the viability of their cellar doors, highlighting the importance of domestic tourism. There are 61 wine regions within Australia, the most famous and diverse include: Barossa Valley, Clare Valley, Coonawarra, Heathcote, Hunter Valley, McLaren Vale, Margaret River, Mudgee, Tasmania, and Yarra Valley (Australian Wine and Brandy Corporation, 2010).

2.2. Destination image

Destination image can be viewed in holistic fashion, such as MacKay and Fesenmaier (1997) who view destination image as a composite of various products (attractions) and attributes woven into a total impression. Echtner and Ritchie (1991, pg 8) state “destination image consists of functional characteristics, concerning the more tangible aspects of the destination, and psychological characteristics concerning the more intangible aspects”. Destination image is also described as a multidimensional construct comprising of cognitive and affective components (Bruwer and Lesschaeve, 2012, Leisen, 2001, Williams, 2001). Functional

attributes of a destination image factors vary amongst researchers, however, Getz and Brown (2006) describe the three core dimensions of wine tourism as encompassing: the core wine product, the core destination appeal and features, and the cultural experience. Affective images and attitudes have been found to be more critical than attribute based images to the decision making stage of destination choice (Cai et al., 2004), as a result these will be included in this study. Many studies explore positioning of destinations and attributes of destinations (Orth and Tureckova, 2002, Dodd and Bigotte, 1997), however, this study is interested in attributes which are important to each wine tourist profile.

2.3. Wine Tourists

Although characteristics of wine tourists have been gathered by Tourism Australia, researchers feel that there is not a stereotypical wine tourist (Charters and Ali-Knight, 2002, Mitchell and Hall, 2006). A brief profile of wine tourists within Australia, include: majority of domestic overnight (65%) and day (97%) wine visitors travelled within their state of residence; a higher proportion of wine visitors travelled as an adult couple; winery visitors spend more than other tourists, the majority of domestic overnight wine visitors who travelled as an adult couple were aged over 45 years (61%), working full-time (54%) and had an annual household income above \$52 000 per annum (67%) (Tourism Research Australia, 2008). Demographics have often been used as a simple basis for segmentation (for example Mitchell and Hall, 2001), country of origin (Alonso et al., 2007), repeat visitors vs first timers (Bruwer and Lesschaeve, 2012). In addition, psychographic factors have been included to provide more richness to understanding wine tourists (Tassiopoulos et al., 2004), motivation (Alant and Bruwer, 2004), preferences for wine regions (Brown and Getz, 2005), personality (Galloway et al., 2008) or involvement (Brown et al., 2006, Cohen and Ben-Nun, 2009). A number of methods of segmenting and profiling winery visitors highlight the complexity of making generalizations about winery visitors (Alonso et al., 2007), however, some of these studies tend to analyse wine tourists as a homogenous target market.

Extending the work by Houghton (Houghton, 2008) who focused on wine event attendees, and Charters and Ali-Knight (2002) who studied motivating factors of wine tourists' wine knowledge and about their interest in wine. Research has found wine tourists tend to fall into three categories based on their motivation and involvement with wine (Charters and Ali-Knight, 2002, Hall and Mitchell, 2008). These have been described as: *wine lover* (who is an experienced winery visitor, mature with high income and education, and will purchase wine at a winery), *wine interested* (likely to have visited other wine regions but wine is not the sole purpose of the visit to the destination, moderate to high income and university educated and will purchase wine from the winery) and the curious tourist (moderate interest in wine, and wineries are as seen 'just another attraction', moderate income and education and may purchase wine). This study has used those three categories in addition to a fourth category of a *disinterested wine* tourist to determine important wine region attributes. In addition, psychographic factors were captured, such as satisfaction with previous wine region visitation, attitude toward wine tourism and intentions to visit in the future. Wine involvement will not be reported as it is beyond the scope of this paper.

3. Research Method

This section will outline the research method used in this study. Data was collected through mail self-administered surveys and online/email self-administered surveys. Both methods were used as the use of two or more survey modes in a single data collection effort raises the possibility of improved response rates (Dillman et al., 2009).

The questionnaire consisted of items measuring the key constructs of interest. The list of wine region attributes was gathered from destination image researchers (Leisen, 2001), and in particular, wine destination research (Getz and Brown, 2006, Williams, 2001). A total of 43 items were used to measure the importance of functional destination attributes and affective destination attributes. The four wine tourist profiles were adapted from wine tourism profiles from Mitchell, Hall and McIntosh (2000), Charters and Ali-Knight (2002), Hall and Mitchell (2008) and Corigliano (1996, as cited in Mitchell et al., 2000), in order to provide a fuller description of a wine tourist. Respondents were requested to evaluate each of the four wine tourist profiles and rate their actual self-image, ideal self-image and social self-image in relation to each of the four wine tourist profiles. A description of each profile is listed below:

Profile 1: The '*wine lover*' knows wines and can discuss the finer points of wine with the wine-maker. Food and wine matching is important. Visits the winery for buying, tasting and learning about wine.

Profile 2: The '*wine interested*' tourist likes wines and has attended tastings and wineries before. Enjoys food and exploring the countryside. Generally travels with friends to wine regions. Eager to learn about wine.

Profile 3: The '*wine curious*' tourist has a low to moderate interest in wine, is motivated to visit the region by non-wine reasons and wineries are seen as 'just another attraction'. Is satisfied with basic knowledge of wine.

Profile 4: The '*disinterested wine*' tourist visits wineries as part of a group, and sees it as an alternative to a bar. Generally just concerned with drinking wine, and has no interest in learning about wine.

Attitude toward wine tourism was captured through a five item unidimensional measure, as recommended by Ajzen (1987), Dabholkar and Bagozzi (2002), and Dubé, Cervellon and Jingyuan (2003). Four items were used to measure the unidimensional construct 'satisfaction' capturing satisfaction with the winery(ies), facilities within the wine region, satisfaction with their overall experience, and if the overall experience met their expectations, as recommended by Spreng and Mackoy (1996). Future behavioral intentions were measured through three items adapted from Dabholkar and Bagozzi (2002), Sparks (2007) and Getz and Brown (2006).

4. Data Analysis

The results in this paper will be limited to the objective of profiling wine tourists. As this study is exploratory in nature, exploratory factor analysis (EFA) was used for the analysis. A one way analysis of variance (ANOVA) and t-tests were conducted, to determine significant differences between the wine profiles and the constructs of interest.

4.1. Sample profile

Data was collected from wine consumers, as it has been shown that wine tourism behaviour is related to wine consumption (Brown et al., 2006, Getz and Brown, 2006). A sample of 650 respondents from across Australia, with 38% from NSW, 22% from Victoria, and 18% from Queensland. The sample is fairly evenly split between genders (Female, 53%, Male 47%). Just over half of the sample (50.3%) is 45-64 year of age, and 25% is 35-44 years. Fifty two percent had an undergraduate degree or postgraduate degree; with 75% either self-employed or in full time employment, and 88% had a combined household income greater than \$88,000.

Life stage varied with 34% living as a mature couple (35+) with no children at home, followed by 33% of respondents in a family with the average age of children 15 year or younger.

4.2. Wine region attributes

EFA was conducted on the destination functional and affective attributes of the respondent's favourite wine region. Seven factors were identified. The first factor, the affective experience (F1) comprised items such as the importance of feeling excited, a sense of escapism and indulgence. The second factor, wine experience (F2), comprised of items such as opportunity to taste lots of wine, purchasing good wine and winery staff knowledgeable about wine. Social experience (F3), comprised entertainment, vibrant atmosphere, opportunity to socialise, wine festivals and events, and group tours. The fourth factor, the environment (F4), comprised items such as relaxed rural atmosphere, beautiful landscape and a clean environment. Wineries (F5) included the importance of large wine companies, with famous and modern wineries. Food and culture (F6), included the importance of excellent restaurants, art galleries and antique shops. Finally, the wine region (F7) comprised the importance of obtaining information about the region easily and that wine trails are well posted. This factor also includes the opportunity to meet the wine maker. The total variance explained by these seven factors was 60% (contact author for all items and factor loadings).

4.3. Wine tourist profile

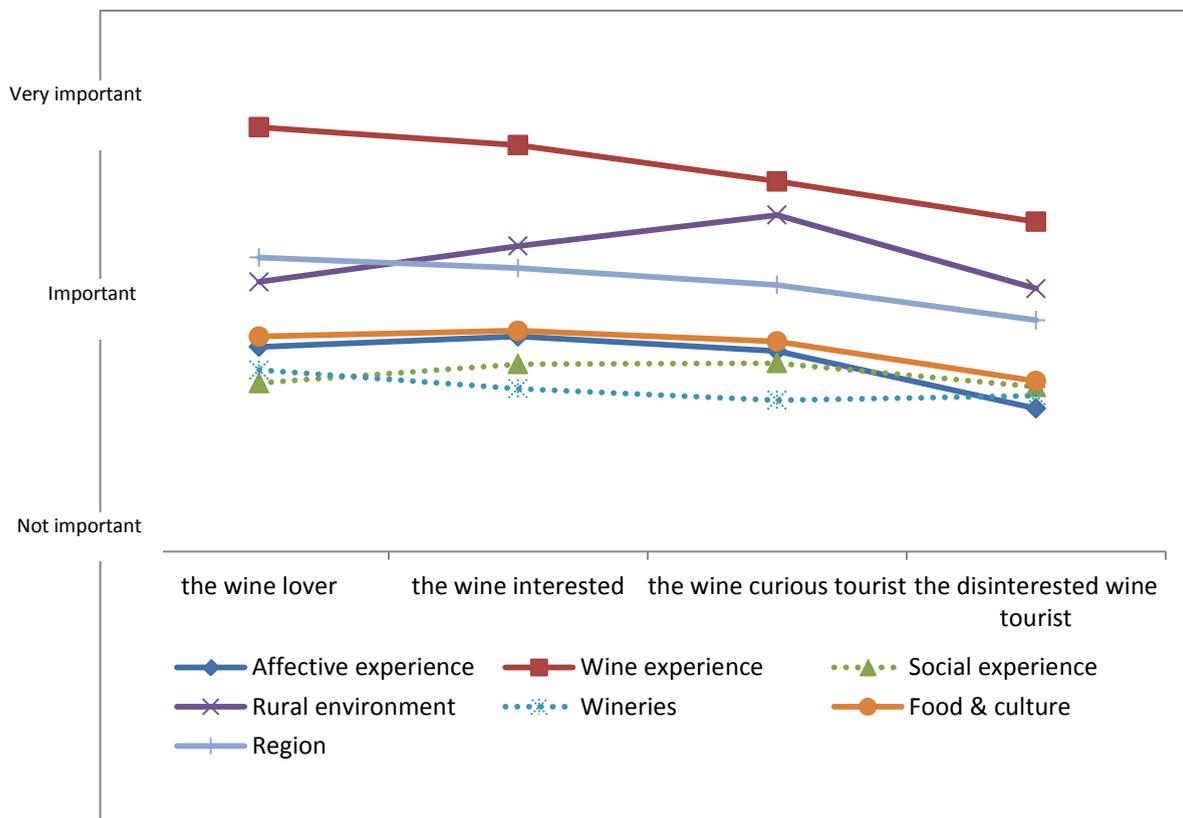
Respondents were requested to evaluate each of the four wine tourist profiles and rate their self-image across all four profiles. Just over half of respondents rated themselves as a '*Wine interested*' tourist (55%), followed by the '*Wine curious*' tourist (17%), the '*Wine lover*' (15%), and 12% were considered the '*disinterested wine*' tourist'. This dominant profile was selected for further analysis.

In order to determine the importance of the wine region factors to each wine tourist profile, ANOVA was conducted on the wine profiles. The affective experience was rated significantly more important for the *wine lover*, the *wine interested* tourist and the *wine curious* tourist than the *disinterested wine* tourist ($F(3,622) = 6.26, p = .000$). The wine experience was rated the highest for all wine tourist profiles, but is significantly more important for the *wine lover* and the *wine interested*, than the *wine curious* and *disinterested wine* tourist. The environment of a wine region was then considered the next most important destination attribute for the *wine interested* and the *wine curious* tourist, which was significantly higher than both the *wine lover* and the *disinterested* tourist. The wine region was the next most important factor for *wine lovers*, which as significantly lower for *wine curious* tourist and the *disinterested wine* tourist. Destination attributes, affective experience of visiting a wine region (F1) and food and culture of a wine region (F6), were similar for the *wine lover*, the *wine interested* and the *wine curious*. The *disinterested* tourist was significantly lower for both of these attributes. See Figure 1.

Psychographic differences were also found between the wine tourist profiles regarding their attitudes toward wine tourism (visiting a wine region), satisfaction with their last visit to a wine region, and their future intentions to visit a wine region (which were all found to be unidimensional variables). Analysis of variance found satisfaction with their previous visit to a wine region the highest for the *wine interested* tourist ($M=5.8, SD=1, F(3,599) = 6.81, p = .000$), followed by the *wine lover* ($M=5.7, SD=1$) which were both significantly higher than the *wine curious* and *disinterested* tourist. A positive attitude toward visiting wine regions was also highest for the *wine interested* tourist ($M=5.6.2, SD=0.9, F(3,640) = 25.1, p = .000$),

however significant differences were found between the *wine lover* ($M=6.1, SD=0.9$), and the *wine curious* ($M=5.7, SD=1$), who was also significantly different from the *disinterested wine tourist* ($M=5.3, SD=1.2$). Although the *wine lover* had lower rating for satisfaction and attitude than the *wine interested*, they had the highest level of intent to visit a wine region in the future ($M=5.9, SD=1.2, F(3,639) = 17.4, p = .000$), which was significantly different from the *wine curious* ($M=5.1, SD=1.5$) and the *disinterested wine tourist* ($M=4.6, SD=1.8$). See Figure 2.

Figure 1: Wine tourist profile by wine region attributes



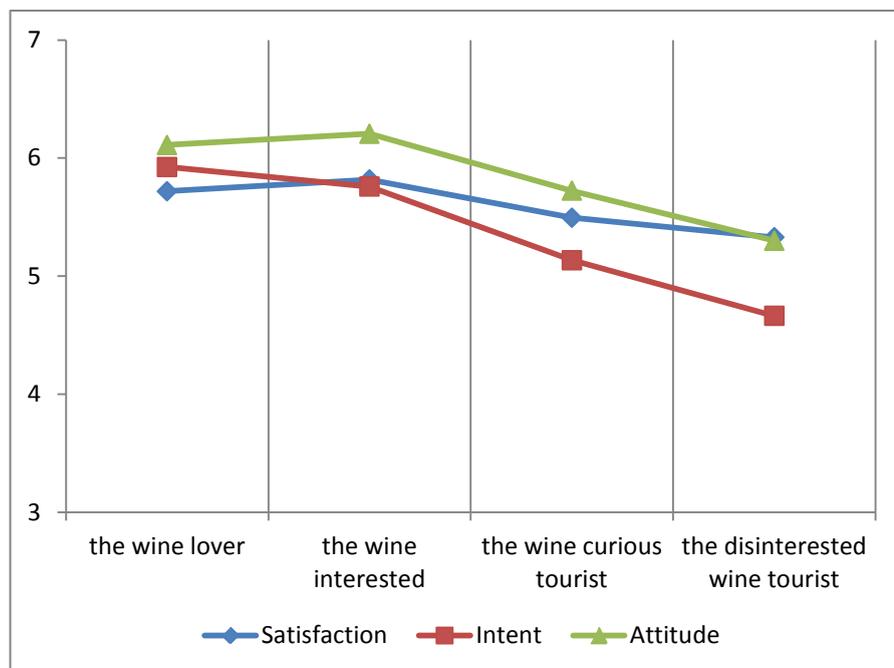
The top five favourite wine regions were the same for all wine tourist profiles. However, preference order was slightly different for each wine tourist profile. *Wine lovers* favorite wine regions include: Barossa Valley, Margaret River, Hunter Valley, Coonawarra, and Yarra Valley. The favorite wine region for the *wine interested* tourists was the Margaret River. The *wine curious* wine tourists was also Margaret river, however, this was followed by Barossa Valley, Hunter Valley, Yarra Valley, and fifth place was between Tasmania, Rutherglen and Coonawarra.

The reasons for their last visit to a wine region varied; however, wine specific reasons were the most common (37.8%), followed by generally touring through the region (31%) and attending an event (10.5%). As expected, the number of visits to wineries within Australia for the *wine lover* is significantly higher ($M=29, SD=65, N=82$) than the other wine profiles (*wine interested* $M=17$, *wine curious* $M=9$, *disinterested wine tourist* $M=13$).

As expected the wine lovers spent more money on wine purchases in a month ($M=\$158$) compared to wine interested tourist ($M=\$132$), wine curious tourist ($M=\$88$) and the disinterested wine tourist ($M=\$87$). The wine lovers also consume wine more often, with 43%

most days, 37% weekly and 14% every day. The wine interested tourist followed a similar pattern, 38% weekly, 35% most days, and 11% every day. Whilst both the wine curious (39% weekly, 20% most days, and 13% monthly) and disinterested (34% weekly, 24% most days, and 13% monthly) both consumed less wine. A summary of the findings are shown in Table 1. No significant differences were found between the wine tourist profile and gender, age, life stage and income.

Figure 2: Psychographic attributes by wine tourist profile



5. Discussion

This paper focused on developing the wine tourist profile by analysing differences in elements of a wine region that is important to each wine tourist profile, evaluating wine tourist past experiences, their attitude toward wine tourism and their future intentions to visit a wine region.

Four wine tourist profiles have been used to identify clusters of wine tourists, which has been found previously in the literature (Mitchell et al., 2000, Charters and Ali-Knight, 2002): the wine lover, the wine interested tourist, the wine curious tourist and the disinterested wine tourist. Wine region functional and affective attributes were analysed using exploratory factory analysis and found seven important factors, which as has support in the literature. It should be noted that many items were split among factors due to nature of the wine tourist experience. For example, the affective item ‘relaxed’ was spit across 4 factors: affect, the wine experience, the environment, and the region.

The wine lover felt the *wine experience* was the most important factor for visiting a wine region. This demonstrates the importance of maintaining quality wine for both purchase at the cellar door and tasting in the cellar door. The cellar door experience also needs to provide a high standard of service with knowledgeable staff. The next important factor is the *region*. This incorporated functional elements with well sign posted wine trails, and information of the wine region easily accessible. This factor however also included meeting the wine maker. This

attribute appears to be linked to information, where knowledge from the wine maker is important as a functional attribute. Wine lovers were very satisfied with their last visit to a wine region and have high intentions of visiting within the next 12 months. The wine lover is a committed wine consumer who spends more money on wine each month than other wine tourists and consumes wine more often. As a result, they are obviously important wine tourists, however, they are a smaller target market than the wine interested tourist.

The wine interested tourists also felt that the *wine experience* was the most important factor of visiting a wine region. So again, quality wine and service is vital in the cellar door for this market segment. The *environment* however was the second most important factor, highlighting the importance of the relaxed atmosphere of wine regions, the beautiful landscape and clean environment. This suggests that the wine interested tourist enjoy the whole winescape and experience of visiting a wine region. The wine interested tourist, appears not to want to label themselves as a wine expert (as the wine lover does), however, they may be even more valuable to wine regions. The wine interested tourist appears to be more interested in wine tourism and excited to visit wine regions, due to their high levels of satisfaction and positive attitudes toward wine tourism. Although their intentions to visit are slightly lower than the wine lover, it is still considered very high. Building a strong relationship with this market segment is vital for wineries and their cellar door to satisfy both the expectations of the cellar door experience and the total environment surrounding their winery.

The wine curious tourist is a market has much potential to develop and transition to a wine interested tourist. This wine tourist profile rated the wine experience and the environment almost equally important. Naturally expectations include the wine experience but are not the motivating factor of this group. Wine regions need to appeal through the beauty of the region and the experiential elements. This market has a positive attitude toward wine tourism, but don't take wine too seriously. This positive attitude is an opportunity as they demonstrate positive intentions to visit. Wineries can build a relationship through creating other reasons to visit, as they still are drawn to the wine element and environment of wine tourism.

In this study the disinterested wine tourist exhibited unexpected traits with their positive attitude toward wine tourism even though this profile has no interest in learning about wine. The social experience can be developed in order to build on the notion of visiting wine region as an alternative to a bar. Information not collected of this target market is the profile of their traveling partner who may be a positive influence. This is demonstrated through their positive attitudes toward wine tourism and intentions to visit, albeit lower than the other wine tourist profiles.

Moore and Homer (2000) found lifestyle activity associated with emotional intensity. Future research can further explore the affective component of decision making and capture dimensions of temperament—emotionality, sociability, and sensory arousability.

5.1. Managerial implications

This paper contributes to expanding our understanding and knowledge of wine tourists, through its focus on wine tourist profiles. Important attributes of a wine region were determined for each wine tourist segment, together with psychographic information on each profile. Practical implications are relevant for tourism state and regional authorities, associations and wine producers with cellar doors. Through the development of different wine tourist profiles, products can be designed for each profile or market segment. It is felt that more consumer based research into wine tourism is needed (Charters and Ali-Knight, 2000, Hall et al., 2000), to ensure future growth of the wine tourism industry.

Table 1: Wine tourist profile summary

	Wine lover	Wine interested tourist	Wine curious tourist	Disinterested wine tourist
Wine tourist profile descriptor	Knows wines and can discuss the finer points of wine with the wine-maker. Food and wine matching is important. Visits the winery for buying, tasting and learning about wine.	Likes wines and has attended tastings and wineries before. Enjoys food and exploring the countryside. Generally travels with friends to wine regions. Eager to learn about wine.	Has a low to moderate interest in wine, is motivated to visit the region by non-wine reasons and wineries are seen as 'just another attraction'. Is satisfied with basic knowledge of wine.	Visits wineries as part of a group, and sees it as an alternative to a bar. Generally just concerned with drinking wine, and has no interest in learning about wine.
Importance of destination factors	The wine experience (purchasing and tasting good wine, good service) most important followed by the region (info on the region, wine trails and meet the wine maker).	The wine experience most important followed by the wine region environment (relaxed rural atmosphere)	The wine experience most important followed by the wine region environment (relaxed rural atmosphere). Wine experience not rated as high as <i>wine lover</i> or <i>wine interested</i> , but the environment rated higher than the <i>wine lover</i> and <i>wine interested</i> .	The wine experience most important followed by the wine region environment (relaxed rural atmosphere). Both rated lower than other wine tourist profiles.
Last visit to a wine region:				
Region visited	Hunter Valley (16%), Margaret River (10%), Yarra Valley (9%)	Hunter Valley (22%), Yarra Valley (11%), Margaret River (10%)	Hunter Valley (24%), Margaret River (19%), Yarra Valley (6%)	Hunter Valley (21%), Margaret River (18%), Yarra Valley (11%)
Satisfaction	1.4 yrs ago	1.4 yrs ago	1.8 yrs ago	2.5 yrs ago
Reason for visiting	Very satisfied	Highest satisfaction	Satisfied	Satisfied
	Wine specific (46%), general touring (30%)	Wine specific (43%), general touring (29%)	General touring through the region (43%), wine specific (29%),	General touring through the region (38%), wine specific (38%),
Attitudes toward wine tourism and intentions to visit a wine region within the next 12 months	Very positive attitude Highest intentions to visit	The highest positive attitude toward wine tourism High intentions to visit	Positive attitude Intentions to visit positive	Positive attitude Intentions to visit positive but the lowest amongst wine tourist
Favourite wine regions	Barossa Valley (26%), Margaret River (17%), Hunter Valley (13%)	Margaret River (27%), Barossa Valley (20%), Hunter Valley (17%)	Margaret River (30%), Barossa Valley (22%), Hunter Valley (22%)	Margaret River (18%), Hunter Valley (20%), Barossa Valley (13%)
Number of visits to wineries	M=29	M=17	M=9	M=13
Spend on wine per month	M=\$158	M=\$132	M=\$88	M=\$87
Wine consumption	14% every day 43% most days 37% weekly	11% every day 35% most days 38% weekly	8% everyday 20% most days 39% weekly	8% everyday 24% most days 34% weekly

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Analysing wine tourists in the Rheingau region – a case study

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◦*Purpose: The Rheingau is one of the smallest but most famous wine regions of Germany and enjoys a high status among wine lovers. Due to the unique experience of nature, culture and sights one can find many tourists who are not wine orientated visiting here - particularly in Rudesheim. The aim of this study was to find only the typical wine tourists in the Rheingau, analyse them and as a result give the Rheingau wine growers a realistic picture of their customers.*

◦*Design/methodology/approach: The study, in which only tourists were interviewed, was conducted as part of a face to face survey with a standard questionnaire. The survey period of about one and a half months was from 15th April to 31st May 2013 and 327 wine tourists were interviewed.*

◦*Findings: The results shows that the Rheingau is perceived as an important destination among wine lovers. With wealthy and elderly visitors this wine growing area is well positioned, but one must not lose sight of the younger generation. In a second step, a further survey will be realised with "normal" tourists in cooperation with the Rheingauer Winzerverband (Rheingau Wine Growers Association). The goal is to bring out potential opportunities in terms of the attractiveness of the wine growing area in order to expand and to use them touristically.*

Keywords: tourism, wine, Germany, Rheingau

1. INTRODUCTION

All along viticulture has benefited from tourism and tourism has benefited from viticulture.

However, it should be noted that there are significant differences between wine tourists and tourists visiting a wine region – the motivation and destination, to visit a specified wine growing region may be completely different between these two kinds of tourists.

The Rheingau is one of the smallest but most famous wine regions of Germany and enjoys a high status among wine lovers. Due to the unique experience of nature, culture and sights one can find many tourists who are not wine orientated visiting here - particularly in Rudesheim. The aim of this study was to find only the typical wine tourists in the Rheingau, analyse them and as a result give the Rheingau wine growers a realistic picture of their customers. This will contribute to a better understanding of customer requirements and hopefully to an improved quality of service.

The study, in which only tourists were interviewed, was conducted as part of a face to face survey with a standard questionnaire. The survey period of about one and a half months was from 15th April to 31st May 2013.

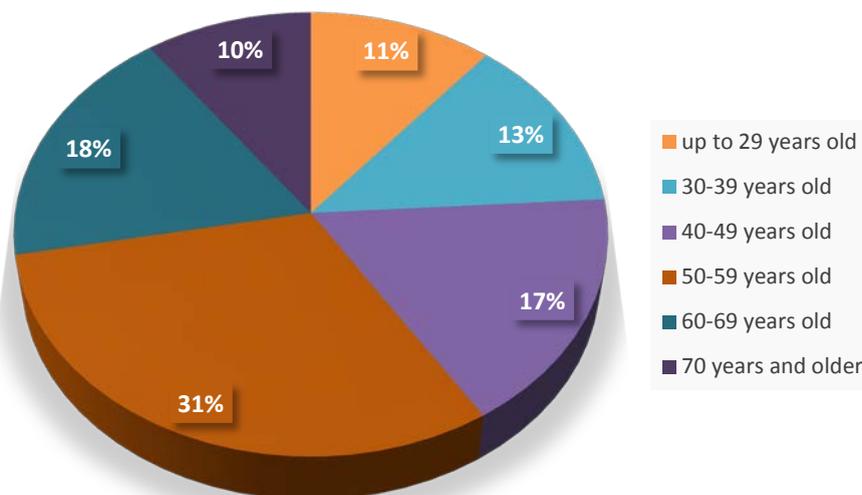
2. METHODOLOGY

In selecting the survey locations there was a major focus set on wine tourist attractions in the Rheingau. These included among others the Rheingau Gourmet Weeks, the wine walk on Flötenweg, the German Sekt Day as well as small, medium and large wineries. At the end the survey sample amounted to a total of 327 tourists. The fact that the survey locations were determined arbitrarily to ensure that a typical selection of wine tourists were present, means the sample cannot be considered as representative. However, this study provides an overview of who the wine tourists in the Rheingau are, what factors influences their travel motivations and travel decision-making processes and how satisfied visitors were with their stay.

3. RESULTS

More than half of all the respondents were people who are 50 years or older. About one third of the interviewed persons belong to the group of 50 to 59-year olds, while 28% were 60 or older. This suggests that the Rheingau is mainly an attraction for people in advanced ages (Figura 1).

Figure 1: Age distribution of the respondents



Considering the criterion of 'highest educational qualification', you will find that half of all visitors stated they had finished a degree. A further 17% reported having achieved A-levels at

high school or equivalent education and almost a quarter (23%) have a medium level of education. The high average level of education is probably also the reason for a quite high net income, which the respondents specified. The analysis of the net income of the interviewed people showed that due to their above-average income, Rheingau wine tourists have a high purchasing power.

Just under half of the 327 respondents are from Hesse. Adding to this the visitors of the neighbouring states Rhineland-Palatinate, Baden-Württemberg, Bavaria and North Rhine-Westphalia, a total of three-quarters of all people are from nearby. Subtracting those who did not want to reveal their origin from the total, there are already over 90% who live in Hesse or its neighbouring states.

Table 1: Summary of the behavioural characteristics

	Wine tourist survey 2013 N=327	Representative survey 2013 N=2000
Consumer frequency		
Several times a week	43%	7%
Once a week	20%	9%
2 to 3 times a month	16%	13%
Once a month	16%	11%
Less than once a month	3%	25%
Never	2%	36%
Flavour preference		
Dry	61%	30%
Semi-dry	29%	51%
Sweet	10%	19%
Colour preference		
White wine	51%	41%
Rose wine	13%	10%
Red wine	36%	49%
Origin preference		
German wine	66%	62%
Foreign wine	34%	38%
Shopping place usage		
Discount store	16%	38%
Food retail store	17%	35%
Wine shop	18%	9%
Direct from winery	41%	15%
Mail order business, Internet, abroad	8%	4%

When analysing their drinking behaviour, it immediately becomes clear that there exists a segment among respondents, the wine lovers, who have a high affinity to drink wine.

43% of all interviewed people drank wine several times a week within the last year.

16% of the surveyed tourists stated that they drink wine two to three times per week, and 20% drank wine at least once a week during the last year. A further 16% said they drink wine once a month. Only 3% of the wine tourists drank wine less than once a month and 2% said they never

drink wine at all.

With relation to the distribution of white, red and rosé wine, preference for white wine emerged most clearly with 51%, followed by red wine with 36%. Furthermore, 66% of German wine was consumed. Looking at the distribution of the preferred flavours, respondents drink by their own account 61% dry, 29% semi-dry and 9% sweet wine. The remaining percentage falls to the consumption of noble sweet and dessert wines.

Looking at the annual wine purchases of the tourists in terms of wine shopping venue, it is evident from the average values that 41% of the respondents buy their wine directly from the wine grower or at a winery. Otherwise those interviewed buy their wines in specialist wine shops (18%). Another 17% of respondents buy wine in the food retail market. 16% of those interviewed do their wine shopping at discount stores and 8% of them bought their wine on the internet or by mail order.

During their stay in the Rheingau, the tourists increased their wine purchased from the wine grower or at a winery to 56%. Apart from that, 14% bought their wine in specialist wine shops, followed by shopping at the local wine store with 12%.

The answers from the respondents regarding wine consumption, colour and taste preference or shopping venue use - are proof that we are dealing with a special target group in this case. It's about wine lovers who consume disproportionately much, drink above average proportion of white wine and are passionate to buy their wines directly from the winery. For comparison with the official statistics see Table 1.

Regarding the type of vacation the occasions wine, visits and relaxing are the first ones. 32% of the respondents took a wine tour in the Rheingau. 18% said the main reason to come is to visit relatives or friends. 13% were on recreational holiday, another 25 people were on a cultural or educational trip, 24 people described their stay as hiking holiday. 17 people took a city trip as hiking tour, another six a cycling trip. Four people were on business travel and 41 stated the main reason for their holiday / stay as "Other". Regardless of what purpose the tourists came to the Rheingau, there was something they all had in common: the Rheingau wine.

Therefore the Rheingau is primarily a destination for short breaks and this is reflected in the results of this study. In total, 47% of the surveyed tourists said they came for a day out to the Rheingau. Guests stay an average of 2.1 days. The higher average is attributed to the 15% of two-day and about 20% to the three-day stays. As previously suspected, the visitors valued the role of viticulture in the travel decision very high. About 2/3 of the respondents stated that wine growing in the Rheingau was an important or even the most important decision criterion for the travel occasion.

For 28% the wine played a less important role in travel decision.

As already noted, the respondents in this study buy their wine predominantly directly from the wine grower or at the cellar door. Asking questions about the wine purchase should on one hand find out what position the purchase of wines takes for the tourists on the other hand how much is spent per head during the stay. Regarding to the relevance of the wine purchase it was reported by 51%, that wine was already bought, and another 18% planned to buy, while 20% still were not sure and 11% excluded themselves from buying wine. Considering the expenses on wine per capita, which the tourists spend during their stay in the Rheingau, 27% spend between 0 and 15 € In the range of 15 to 30 euros, 27% of respondents were located. During their stay in the Rheingau 23% spent between 30 and 60 Euro per capita on wine and a further 24% of respondents paid more than 60 euros for wine.

The average expenditure on wine was 55 Euros per person.

The guests were also asked about their general satisfaction within the stay in the Rheingau respectively about the satisfaction of specific points on a scale of 5 (1 = very satisfied, 5 = very unsatisfied). It should be noted that visitors were very pleased in general and also with the wines that the region offers. Also the tourist attractions and hiking trails were found to be

excellent. Guests were most dissatisfied with shopping on site (especially typical shopping) and the offers for families with children. Nevertheless, the rate here was around 2.5, which is exactly in the middle between "Very satisfied" or "very dissatisfied". Overall, 99.4% of respondents would recommend the Rheingau as a holiday resort.

4. SUMMARY

The results show that the Rheingau is perceived as an important destination among wine lovers. With wealthy and elderly visitors this wine growing area is well positioned, but one must not lose sight of the younger generation. In a second step, a further survey will be realised with "normal" tourists in cooperation with the Rheingauer Winzerverband (Rheingau Wine Growers Association). The goal is to bring out potential opportunities in terms of the attractiveness of the wine growing area in order to expand and to use them touristically.

Who's here? An exploratory study of the characteristics and wine consumption behaviours of visitors at a New Zealand wine festival

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Abstract

Purpose – This paper explores the socio-demographic characteristics and wine consumption behaviours of visitors to a New Zealand wine and food festival and explores the extent to which they differ from a general sample of New Zealand wine consumers.

Design/methodology/approach - The data were collected via a structured self-complete survey, distributed through a combination of survey administration modes (pen-and-paper and online). Descriptive statistics and χ^2 tests of significance were used to analyse the data.

Findings – The festival attendees did not differ significantly from a general sample of wine consumers on most measures, but they did consume wine more frequently and bought more wine for home consumption. The festival sample was also more diverse than the general sample on many measures, suggesting that the reasons for being at the festival, and the experiences sought, are not homogeneous.

Practical implications – The paper provides an up-to-date profile of wine festival attendees at one festival in New Zealand, it highlights the similarities and differences between this sample and a general sample of wine consumers in New Zealand and suggests avenues for future research.

Key words: wine festival visitor profile; New Zealand.

1. INTRODUCTION

Over the past decade, wine events and festivals have become increasingly important as tourist attractions and branding and promotional tools for wineries and wine regions (Bruwer, 2002; Dodd et al., 2006). These festivals and events appeal also to a growing number of consumers who are seeking memorable and personal experiences rather than sights and products in their leisure time (Pine and Gilmore, 1999). Wine festivals provide ample opportunities for a diversity of such experiences including hedonic pleasure, entertainment, educational experiences and escape from everyday life (Bruwer and Alant, 2009; Charters et al., 2009; Quadri-Felitti and Fiore, 2012). Despite the growing role of wine festivals and events, the academic study of wine festival attendees –who attends them and why – is still relatively limited. However, there are a growing number of studies exploring the motivation of wine festival attendees, which have generally found escape/relaxation, wine, socialisation with friends and family and entertainment dominate (Park et al., 2008; Tanford et al., 2012; Yuan et al., 2008). Some segmentation of festival attendees on the basis of age (Dodd et al., 2006), wine knowledge (Houghton, 2008), and involvement (Yuan et al., 2008) has been reported also, but there is scope for more research of the phenomenon.

Anecdotal and academic research tends to conclude that wine festival attendees differ from wine consumers more generally, but there is less agreement on how they differ. Some researchers argue that wine festivals provide a good opportunity to attract younger, less experienced wine consumers who are able to learn about wine in a more social and less intimidating environment than at a wine class or a winery (Dodd et al., 2006; Houghton, 2001). Somewhat contradictorily, it has been argued that the fact that wine festival attendees have made an effort to attend a wine event, usually at considerable expense and involving travel, means that they are likely to be more serious wine tourists (Houghton, 2001; Park et al., 2008; Weiler et al., 2004). By contrast, others believe that the focus on fun and socialization at festivals and events means that the people who are attracted are not serious, and that the popularity and ‘party atmosphere’ of some wine events makes quality interaction difficult and may even deter serious wine consumers (Houghton, 2008).

The reality is that wine festival attendees are not homogeneous (Yuan et al., 2008). Furthermore, the heterogeneity of wine events means that different types of festivals attract quite different markets with varied motivations (Houghton, 2001; Park et al., 2008). Wine-related festivals and events exist on a continuum with regards to the centrality of wine to the event, with many festivals incorporating music, food, art and other performances to support or enhance the experience. The educational component of wine festivals can vary dramatically also; ranging from informal learning through wine tasting, to more formal seminars and workshops (Dodd et al., 2006). The location of the festival will have an impact also on the experience of the event, and likely the characteristics of the festival-goers (Dodd et al., 2006). Attending a wine festival in a rural wine region generally requires more planning, organisation and commitment than attending a wine festival in the city where one lives (Park et al., 2008).

The Christchurch/South Island Wine and Food Festival, is one of the most recent additions to the growing number of wine festivals and events in New Zealand. This festival was first held in 2011 and has occurred annually in December since then. Unlike the many festivals which are located in rural locations showcasing a particular region’s wines, this festival is based at North Hagley Park in the centre of the city of Christchurch and features wines from the five South Island wine regions. While wine is undoubtedly central to the festival, it is supported by a strong programme of musical entertainment and a range of food providers and

restaurants. There is a substantial programme of free educational events also, which are generally oversubscribed. This programme includes cooking seminars from well-known chefs and a range of wine master classes from winemakers and wine writers and critics (Christchurch/South Island Wine and Food Festival, 2013). The price of tickets to the event range from NZ\$30 to NZ\$150. General admission tickets in 2013 cost NZ\$37.50, which entitled ticket holders to entry and access to the performances and seminars, but wine tasting was extra (\$1 to \$2 per tasting). Children attending the event with an adult received free entry. With a total capacity of 8,000, all tickets sold out before the day of the event.

Despite the growing interest in wine festivals from the perspective of producers and consumers, there has been very limited academic research on the phenomenon of wine events in New Zealand, and most of this is now quite dated (Hall and Mitchell, 2004; Nicholson and Pearce, 2000). The purpose of this paper, therefore, is to answer two research questions:

- 1: What are the socio-demographic characteristics and wine consumption behavior of attendees at the Christchurch/South Island Wine and Food Festival?
- 2: Do these festival attendees differ in their socio-demographic characteristics and wine consumption behavior from a general sample of New Zealand wine consumers?

2. METHOD

This paper is based on data gathered as part of a broader cross-national research project of wine consumers (see Velikova et al., 2014). For a balanced perspective on the topic under investigation, researchers attempted to include highly involved consumers who are very interested in wine, as well as consumers with a more limited interest in wine. Participants in New Zealand were recruited through two processes: a pen-and-paper survey (self-completed) and an online survey. The survey was divided into two parts – the first one included general wine preferences and consumption behaviour, along with the socio-demographic characteristics of the sampled population; it is this component of the survey that is reported here. The pen-and-paper survey was distributed at the Christchurch/South Island Wine and Food Festival, in December 2013 by two research assistants during the first four hours of the festival on a ‘next to pass’ basis. The same questionnaire was distributed as an online survey through the researcher’s networks and contacts, and was promoted through posting the URL on Facebook. In all cases, recipients of the request were asked to forward the posted URL to family and friends. In total, 355 usable surveys were completed; 171 from festival attendees and 184 from online respondents (referred to below as the general wine consumer sample).

3. RESULTS AND DISCUSSION

3.1 Socio-demographic characteristics

The socio-demographic characteristics tested were gender, age, education, and income. There were considerably more females than males in the festival sample (females 59.6%; males 40.4%), although the sample was less skewed than the general wine consumer sample (females 66.8%; males 33.2%). This high proportion of females in the sample of wine festival-goers is similar to that found in previous studies in New Zealand (Nicholson and Pearce, 2000) and globally (Park et al., 2008; Weiler et al., 2004; Yuan et al., 2008), and reflects the fact that females represent a higher percentage of wine consumers than males (Kolyesnikova et al., 2003; Pettigrew, 2003).

The average age of festival respondents was 42 years, which was not significantly different to the general wine consumer sample (43 years). Table 1 reveals some statistically significant

differences in the distribution of respondents, with the festival sample having a slightly higher proportion of the sample under 35 years and the general sample having more respondents aged 56 and over. In general, the festival sample has a greater spread by age category than some similar surveys and the proportion of younger people in the festival sample (13.1% aged 18-24 years) is lower than at many wine festivals previously reported (Hall and Mitchell, 2004; Houghton, 2008; Nicholson and Pearce, 2000; Park et al., 2008). This may be due to the broad range of attractions at the event. For example, the family-friendly environment (children have free entry) and the food and wine master classes and seminars may attract an older audience than other wine festivals. Furthermore, the price of entry (excluding wine tasting) may have seemed relatively high for younger people.

Table 1: Demographic profile of festival visitors compared to general wine consumers

Variable	Festival %	General %	Overall %
Age*			
18 to 25 years	13.1	10.3	11.6
26 to 35 years	24.4	23.9	24.1
36 to 45 years	26.8	21.2	23.9
46 to 55 years	20.8	22.8	21.9
56 to 64 years	10.7	21.7	16.5
65 years and over	4.2	0.0	2.0
Highest qualification**			
No formal qualifications	4.1	0.5	2.3
High school qualification	21.1	7.6	14.1
Tertiary diploma or certificate	21.1	14.1	17.5
Trade certificate	11.1	4.9	7.9
Degree	21.1	25.0	23.1
Postgraduate degree	21.6	47.8	35.2
Household income per annum			
Less than NZ\$20,000	5.6	6.0	5.8
NZ\$20,000 - NZ\$40,000	7.4	2.7	4.9
NZ\$40,000 - NZ\$60,000	17.9	14.7	16.2
NZ\$60,000 - NZ\$80,000	13.6	19.6	16.8
NZ\$80,000 - NZ\$100,000	21.6	18.5	19.9
NZ\$100,000 and over	34.0	38.6	36.4

* $\chi^2(5, N = 352) = 16.041, p < .01$ ** $\chi^2(5, N = 355) = 40.971, p < .001$

In relation to educational qualifications, 42.7% of the festival sample had a degree or postgraduate degree, while a quarter of respondents had high school qualification or no formal qualifications, reflecting previous research (Houghton, 2008; Park et al., 2008; Yuan et al., 2008). There were very significant differences between the festival sample and the general wine consumer sample, however, with close to half of the latter sample (47.8%) holding a postgraduate degree and only 8.1% holding high school or no formal qualifications. While wine consumers are recognised as being generally highly-educated (Yuan et al., 2005), this over representation of the very highly qualified is perhaps a reflection of the sampling technique, which involved circulating the invitation through a number of online sources, including a university-based email list, an alumni list of tourism graduates and the e-bulletin board of a crown research institute. While this was supplemented by posting in other social

media and recipients were asked to circulate the invitation to friends and family it seems most respondents were the primary email recipients. Despite the significant differences in educational achievement between the two samples there was no significant difference in household income; both samples were over-represented in the higher earning category, which has been reported elsewhere (Hall and Mitchell, 2004).

6.2 Wine consumption behaviour

Festival-goers were asked a range of questions about their wine consumption behavior and their self-assessed wine knowledge and their responses were compared with those of the general wine consumers (see Table 2). Given their presence at a wine festival it is hardly surprising that the majority of festival respondents named wine as their most frequently consumed alcohol. While statistical analysis reveals that there is no significant differences between the festival and general wine consumer samples with regards to this dimension, it is noticeable that while three-quarters of the general wine consumer sample stated wine as most frequently consumed, only two-thirds of the festival respondents did so, with higher proportions selecting beer and spirits.

Table 2: Wine consumption behaviour of festival visitors and general wine consumers

Variable	Festival %	General %	Overall %
Most frequently consumed			
Beer	23.3	17.4	20.1
Wine	66.7	76.1	65.5
Spirits	10.1	6.5	8.2
Favourite wine style			
Red	40.0	41.3	40.7
White	42.8	45.7	44.4
Rose	2.8	2.7	2.7
Champagne/sparkling wine	14.5	10.3	12.2
Frequency of wine consumption*			
Daily	14.8	7.6	11.0
Several times a week	42.6	40.8	41.6
Once a week	26.0	29.9	28.0
About once a month	9.5	20.1	15.0
Less than once a month	7.1	1.6	4.2
Levels of wine knowledge			
Advanced knowledge	11.8	11.4	11.6
Intermediate knowledge	59.4	63.6	61.6
Basic knowledge	24.7	23.9	24.3
No prior knowledge of wine	4.1	1.1	2.5

* $\chi^2(4, N = 353) = 17.501, p = .002$

There was no significant difference between the samples regarding the preference for styles of wine, with a relatively even split between red and white wines with white wine slightly dominant. Significant differences were apparent, however, in the frequency of consumption, with festival respondents being significantly more likely to consume wine daily (14.8% compared to 7.6%), while also having a higher proportion of respondents consuming wine less than once a month (7.1% compared to 1.6%). In each sample the majority of respondents

consumed wine at least once a week, with the festival respondents somewhat more likely to do so than the general wine consumer respondents (83.4% compared to 78.3%). In keeping with this finding, festival attendees purchased significantly more bottles of wine for home consumption each month than the general wine consumer sample ($M = 5.85$; $M = 3.91$; $t(364) = p < .001$). These findings cumulatively may suggest that wine has a more central role in the lifestyle of those who would pay to go to a wine festival than the general wine consumer. Interestingly, however, there was no significant differences between the two samples with regard to self-described wine knowledge which might have been expected given the above findings. A relatively small proportion of each sample self-identifying as having 'advanced' wine knowledge and the majority rating their knowledge as 'intermediate'.¹ Close to a quarter of respondents in each sample felt their wine knowledge was 'basic', while a very small proportion reported having 'no prior knowledge of wine at all', with the festival sample having a higher, but still low, proportion of respondents in this category.

There was no statistical difference either in the average amount the samples spent per bottle of wine (festival-goers spending on average NZ\$ 16.17 and the general wine consumer spending NZ\$15.30 per bottle); both slightly above the average cost of a mid-priced bottle of wine in New Zealand (Naden, 2014). While the median price paid by each sample was the same (NZ\$15.00), the spread of responses amongst the festival goers was greater than that of the general wine consumers ($SD = NZ\$9.15$ compared to $SD = NZ\$6.44$), again suggesting more diversity within the sample of festival goers.

As indicated above, there is some suggestion in these results of the festival sample being more diverse than the general wine consumer sample in terms of socio-demographic characteristics and wine consumption behaviours. While some of these differences are due perhaps to the snowball sampling technique used to acquire the general wine consumer sample, previous research would suggest that the nature of festivals might attract a diverse market also, including young people for whom traditional wine tourism activities may be perceived as intimidating (Houghton, 2008). This tends to be borne out in further analysis, whereby the younger festival attendees are significantly different to their older counterparts. On some measures this is matched in the sample of general wine consumers, in particular regarding most frequently consumed alcohol, and favourite wine styles, however the age effect is more marked in the festival sample and is reflected in a broader range of wine consumption behaviour variables. For example, younger festival-goers reported being significantly less knowledgeable than older respondents ($\chi^2(10, N = 167) = 31.754, p < .001$) and purchased considerably less wine per month for home consumption ($\chi^2(15), N = 166) = 44.997, p < .001$); on each of these measures there were no significant differences by age in the general wine consumer sample. This suggests that younger people are attending this festival for different reasons than older attendees, however more research is need to explore this assertion.

7. CONCLUSIONS AND IMPLICATIONS

This paper has outlined the profile attendees at the Christchurch/South Island Wine and Food Festival and compared this with the profile of a general wine consumer sample. While it is acknowledged that there are limitations and challenges in comparing data from online and pen-and-paper sources (Duffy et al., 2005; Szolnoki and Hoffman, 2013), the comparison of the wine festival and general wine consumer samples provides a starting point for future research. Understanding the customer for a particular festival can be important for ongoing development and modification to the event (Houghton, 2008). For example, the apparent diversity of attendees means that the organisers have to ensure that there are activities and

events to suit their needs. At the same time, the accumulation of case studies of wine festivals around the world may in time enable the development of a more theoretical understanding of wine festival consumers. The research has revealed that the Christchurch/South Island Wine and Food Festival attracts a market similar to other wine festivals in a number of ways, with a predominance of females, the highly-educated and relatively high income earners. This festival does seem to attract a smaller proportion of young wine consumers than many festivals, reflecting the fact that festivals are not homogenous in content or appeal (Houghton, 2001, 2008; Park et al., 2008).

In general, the wine festival sample is relatively similar to a general sample of New Zealand wine consumers on socio-demographic characteristic and wine consumption behaviours also. However, in relation to wine consumer behaviour, it is interesting to note that the festival sample reported consuming wine more frequently and to purchasing more wine to consume at home than the general wine consumer sample, perhaps suggesting that wine is a more regular part of their lifestyles. Notable also is the greater diversity in the festival sample than the general wine consumer sample, with more respondents at the extremes of most measures, highlighting the heterogeneity of wine festival attendees (Yuan et al., 2008), and perhaps reflecting not only differing motivations for attendance, but also the range of experiences – educational, aesthetic, entertaining and escapist – being sought and expected from the event, which deserves further attention from academic researchers.

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ⁱ 'Advanced' – international knowledge of wines, have completed wine course, confident about my wine knowledge; 'Intermediate' – know different wine styles and can identify them; 'Basic' – know the names of wine styles but can't identify the differences between them 'No prior knowledge of wine at all' - know nothing about wines.

Wine Tasting a la Vending Machine: The case of Max Bordeaux

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- *Purpose: This teaching case study introduces an innovative distribution system for luxury wine products and outlines the consumer segments for the fine wine industry with special attention drawn to East-Asian/Chinese consumers. It is a useful tool to discuss luxury products, the luxury industry, and the unique strategic marketing challenges associated with them.*
 - *Approach: This is a teaching case study for use as part of a university undergraduate or graduate marketing course. It highlights pricing, product/services, as well as place/distribution decisions in a retail environment. This case is based on published sources.*
 - *Findings: The main protagonist, shop manager Anne Melchior, has been charged by the founder, Henning Thoresen, to explore expanding the successful retail tasting room and wine cellar business, Max Bordeaux. Through information from the main text and the appendices, students must grapple with evaluating expansion to Paris and internationally, developing new brand extensions through the introduction of food, a cooking school, and Chateau tours. Students explore luxury experiences and also consider the difference between luxury products (ex. first growth wines) and luxury services (ex. a three star Michelin restaurant).*
 - *Practical implications: Students will be able develop a strategic marketing understanding (Product/Service, Place/Distribution, Price, and Promotion) of a retail luxury business. Instructors are encouraged to use this case in conjunction with Berthon et al. (2009), "Aesthetics and Ephemerality", California Management Review, which outlines a framework for managing different kinds of luxury brands. Combined, students will have a solid foundation in marketing luxury market offerings.*

Key words: Wine; Tourism, Distribution, Advertising; Customer Value

In January 2010, Max Bordeaux founder, Henning Thoresen, is concerned about the future of his highly successful retail fine wine tasting room and cellar business. He is also the founder of the Bordeaux Winebank Group (BWB), one of the world's leading wine investment companies and the holder of more than \$100 million in wine stored in Bordeaux and parent company of Max Bordeaux. Thoresen is now pressuring the Max Bordeaux manager, Anne Melchior to investigate future paths of growth for the retail operations.

From customer comments, Melchior knows she is doing something right in the tasting room. So right that the BWB board has charged her to think about expanding the business outside of Bordeaux. But Melchior is worried that expanding the business outside of the Bordeaux region will take away from the unique experience that the store in the city of Bordeaux offers. And after all, it is the experience of tasting great wine that is selling well, not so much cases of the fine wine the shop stocks. Will expansion to Paris, Tokyo, or Shanghai strengthen the Max Bordeaux brand or will the company be spreading the retail operations' resources too thinly?

At the same time, Melchior has always been a dreamer, so she is exploring other expansion ideas that might increase retail profits. She is considering proposing to Thoresen that he should invest in providing menu options to complement the wines. Moreover, Melchior wonders if the shop could be a hub to provide other related services such as a cooking school or local Chateau tours to capture additional value from patrons. Also, should she revise the current pricing plan to encourage larger consumption of each wine? Furthermore, she is unsure of how to further promote and advertise the retail business as it is, other than its great central location and website.

1. BORDEAUX

Sitting on the banks of the mouth of the Gironde river in South-Western France, the surroundings of the city of Bordeaux produce the most famous and arguably some of the best red wines in the world. Bordeaux is the largest wine producing region in the world and dominates the futures and auction markets for luxury wines (Thompson and Mutkoski, 2011). The region is legendary for the longevity of its wines, that allows the wine to lose its astringency, and better develop the aromas and flavors. It is this property that feeds the active market for younger and older wines by providing the incentive for speculators to invest in young wines in the hopes that they can sell them for more after several years of storage (Ashenfelter, 2008).

1.1 The 1855 Classification

Requested by French Emperor Napoleon III, the Bordeaux Wine Official Classification of 1855 offered a quality ranking system to visitors of the 1855 Exposition Universelle de Paris. Since then, the classification system has been very influential in pricing decisions and consumer demand. The system involves five growth (or *cru*) categories for Bordeaux red wines. Only wines from the Medoc district (with the exception of Chateau Haut-Brion from the Graves district) were included in the 1855 classification, leaving some critics to call this system the 1855 Medoc classification (Thompson and Mutkoski, 2011). The premier wines are classified as first growths and retail for well over \$800 a bottle depending on the year.

This system has been criticized for being too narrowly focused on the Medoc. Moreover, critics argue that the 1855 classification is outdated and does not provide an accurate guide to wine quality as many estates in the lower growths and unclassified Bordeaux vineyards have invested vast sums of money into their estates and improved quality substantially. Regardless,

consumers of fine wines seek out wines from highly classified estates and pay a premium to drink them.

2. CONSUMERS OF FINE WINE

Like most luxury industries, fine wine attracts two main consumer groups: wine connoisseurs and aspirational wine drinkers (Spawton, 1991; Hall and Winchester, 1999). Fine wine consumers generally base their purchase decisions on persistent quality expectations, rather than short-term trends (Landon and Smith, 1997), as opposed to other luxury markets such as fashion or automobiles. Fine wine consumers look for vineyards that have a long history of producing excellent products, which is why the 1855 Bordeaux classification is so influential.

Wine Connoisseurs are characterized by high product and industry knowledge and are the primary purchasers of fine wines. They usually consume wine on a daily basis and are very brand loyal. They often purchase only through recognized wine merchants or directly from the vineyard. They see wine education as a hobby and are not price sensitive (Spawton, 1991). These consumers utilize previous experiences with wine brands to make purchase decisions. They are most concerned with the vintage, the age of the wine, grape type and the brand (or label) (Hall and Winchester, 1999).

Aspirational drinkers are concerned with the social aspects of wine and purchase wines and labels with good reviews. They spend considerable time searching for the right bottle and often choose well-known brands, as these brands are seen as safe. These consumers are highly influenced by wine writers, “tastemakers”, and other opinion leaders (Spawton, 1991). The best-known wine writer and tastemaker is Robert Parker, whose wine-rating newsletter, *The Wine Advocate*, can make or break a lesser known vineyard. These consumers care about the image of drinking a famous wine brand to increase their reputation, reflect a luxurious lifestyle, and to get social approval. They see a prestigious wine brand as signaling a sense of status and class to others (Hall and Winchester, 1999).

Other wine consumer groups are more interested in the wine as a beverage or are still too new to drinking wine to be interested in purchasing and consumer fine wines. They lack any “wine appreciation” and would be just as happy consuming supermarket wines.

2.2 The Rise of the East Asian Wine Drinker

Wine has generally been a part of Western culture for centuries, and more recently has become very popular around the world. East Asia – Japan, China, Korea, Taiwan, Singapore – has seen wine consumption annual growth rates of over 65% in the past decade. This has been attributed mostly to globalization (the ability to get fine wine locally) and economic growth of the region (the ability to buy fine wine) (Lee, 2009). For example, China has become the largest importer of Bordeaux wines and consumption has risen nearly 110% in 2011 (Douet, 2012).

Recently, a few wealthy Chinese businesspeople have been buying prestigious Bordeaux wine estates. Chinese tastes are generally a bit different than others as they often prefer sweeter, more sugary wines, and a common practice is to “cut” the wine with a soda such as Coca-Cola or Sprite. Chinese luxury travelers love the vistas, food, and wine of Bordeaux but often complain that they would like to see more luxury in the services provided by the local hospitality industry (Douet, 2012).

3. MAX BORDEAUX / WINE GALLERY & CELLAR

Opened in 2009, Max Bordeaux is a highly successful wine tasting room and wine cellar in the city of Bordeaux located in the heart of the shopping district with many nearby hotels. The tasting room offers tasting glasses of fine wines mainly from the local world famous Bordeaux wine region. The wine cellar also offers fine wines at reasonable prices online anywhere in the world shipped with Five Star provenance certification.

3.1 The Max Bordeaux Experience

The problem for most consumers, when it comes to fine, classified Bordeaux wines, are their prices. Wines served in the tasting room range from an expensive \$50 a bottle for a great wine to a nearly unaffordable \$1,500 a bottle for a first growth Bordeaux. The tasting room offers sample “tastes” of these hundreds of great wines in 25ml, 50 ml, and 75 ml quantities (see Appendix A for a sample price list). This provides an unforgettable and unique experience to wine enthusiasts, wine connoisseurs, and luxury-seeking customers alike. Anyone who loves wine can at least taste even the most expensive first growth wine label. For many wine enthusiasts, tasting all five first growths is a life-long ambition that Max Bordeaux caters to.

Customers are greeted from the busy shopping street with a red carpet going through a simple, but stately door and down a long hallway with famous Bordeaux bottles on pedestals. The main tasting room is set up like a fine art gallery with framed wine dispensers and impressive displays of high quality wine bottles and wine crates from famous vineyards. The gallery is lit with a spectacular array of Bordeaux wine glasses suspended from the ceiling (see Appendix B). The stage is set for an unforgettable experience.

Upon entering the tasting room, customers are welcomed by a staff member who shows them to a standing-room only table and offers wine glasses, some water, and complimentary local snacks, while explaining how the tasting system works. For a minimum 25 euros, customers can get a Max Bordeaux Club Card that allows them to purchase wine directly from the Enomatic wine dispensing machine (see Appendix C) at the ideal temperature and free from over-oxygenation. These special Italian wine dispensers offer perfect servings of wine that tastes as if the bottle was freshly opened and aerated by replacing the liquid when poured with nitrogen to preserve the taste and quality of the wine for up to four weeks (Enomatic, 2012). Thus, customers, not staff members, choose and pour their own wine glasses with their Club Card, making the tasting gallery a fun and lively place with people walking around, taking pictures, tasting wine, and just enjoying themselves (see Appendix D for some customer reviews).

3.2 Max Bordeaux at Home

The Max Bordeaux cellars operate mostly online and offer a way to get a guaranteed chateau experience at home. The online store offers customers a wide selection of the finest Bordeaux wines with the additional assurance of Five Star provenance certification. Five Star provenance, owned by Thoresen’s Bordeaux Winebank Group, is a quality label that assures consumers of a case of wine’s authenticity. It guarantees that the wine purchased looks, smells, and tastes the same as though it was enjoyed at the Chateau. The purchaser receives the wine in its original wooden case, which is certified right at the Chateau as being authentic. Unopened cases offer a price premium for tasters and collectors in the secondary market. Each case is certified never to have been shipped out of Bordeaux, until the purchaser orders it. In addition, every case is equipped with a temperature and humidity monitoring device to further assure the wine is delivered in pristine shape (Bordeaux Winebank, 2012). Thus, wine purchased in the Max Bordeaux online wine cellar can be enjoyed “just like at the Chateau, anywhere, anytime”.

4. A PLAN WITH A VISION

Melchior has a few options to recommend in her plan:

- She could go along with Thoresen and propose expansion to other cities. The French capital, Paris, is an obvious choice with its droves of visitors every year and since it is in France, it eliminates a lot of the risk in setting up an international operation. There is also the possibility of expanding to Asian cities, such as Tokyo and Shanghai, where there are many wealthy consumers seeking luxury experiences. However, Melchior knows very little about these markets and would have to rely on existing BWB operations in Asia for help. She wonders if franchising might be an option, or if wholly owned branches are the way to go.
- She could recommend offering traditional French hors d'oeuvres, such as foie gras, fine local cheeses and/or charcuterie plates, among others, although her current retail location does not have the facilities or the staff for a kitchen. This is also an issue with offering French cuisine cooking classes, but she believes there might be a market for it.
- Thoresen and others on the BWB board are well connected within the Bordeaux Chateau community. If Melchior could persuade them to seek out tour opportunities to famous Chateaux that are usually off limits to the public, Max Bordeaux would have an advantage over other tour operators and attract more customers to Max Bordeaux. But she is unsure of how this idea might be received by the board, as they might not want to strain their relationships with the famous Chateaux.
- Melchior believes that the key to a successful business is customer awareness. She has been promoting Max Bordeaux online with websites, and offline with small professionally printed flyers that were distributed through nearby hotels. She knows that she could do more, but is not sure what other good channels to reach her potential customers there might be. She has read a lot about social media, but does not think it fits well with the business.
- Currently, the price for wine tasting is based on volume. Melchior is considering changing this to offer a small discount for larger quantities to encourage increased spending per customer. But the decreased margins associated with larger volumes will only result in higher overall profits if customers continue to try different wine labels.

Thoresen is a successful businessman with BWB, but he has maintained a hands-off approach to managing Max Bordeaux. Melchior not only wants to show she can handle her position, but also she wants to impress her boss with a viable plan of action that includes a vision for what the shop should look like in five years. It is obvious that Thoresen sees the potential of this business and Melchior is under a lot of pressure to put together her business plan soon. The prime tourist season starts with Bordeaux's VinExpo, the annual major international wine exhibition, which is just around the corner in June. Melchior now needs to contemplate which of Thoresen's expansion options, along with her own ideas, she should include in her presentation to Thoresen and the BWB board. She knows she has to balance her plan so that anything she proposes adds value to Max Bordeaux without taking anything away from the successful wine tasting business.

APPENDIX A: SAMPLE GRAND CRUS TASTING PRICE LIST

			 25 mL	 50 mL	 75 mL
	CLERC MILON 2007 5ème Cru Classé en 1855 Pauillac		4 €	8 €	12 €
	LANGOA BARTON 2005 3ème Cru Classé en 1855 Saint-Julien		5 €	10 €	15 €
	CLARENCE DE HAUT-BRION 2007 Second Vin de Haut-Brion Pessac-Léognan		6 €	12 €	18 €
	PICHON BARON 2008 2ème Cru Classé en 1855 Pauillac		7 €	14 €	21 €
	PALMER 2008 3ème Cru Classé en 1855 Margaux		10 €	20 €	30 €
	COS D'ESTOURNEL 2003 2ème Cru Classé en 1855 St Estèphe		14 €	28 €	42 €
	MOUTON ROTHSCHILD 2004 1er Cru Classé en 1973 Pauillac		25 €	50 €	75 €
	CHEVAL BLANC 2008 1er Cru Classé "A" St Emilion GC		25 €	50 €	75 €
	MOUTON ROTHSCHILD 2003 1er Cru Classé en 1973 Pauillac		25 €	50 €	75 €
	MARGAUX 2006 1er Cru Classé en 1855 Margaux		25 €	50 €	75 €
	D'YQUEM 2006 1er Cru Classé Supérieur en 1855 Sauternes		20 €	40 €	60 €

Source: Max Bordeaux (www.maxbordeaux.com)

APPENDIX B: THE MAX BORDEAUX WINE GALLERY



Source: Max Bordeaux (www.maxbordeaux.com)

APPENDIX C: THE ENOMATIC WINE DISPENSER



Source: Enomatic SRL (<http://www.enomatic.it>)



APPENDIX D: FIVE CUSTOMER EXPERIENCES

David S. from Brooklyn, NY writes:

“This was a really interesting experience, if you're serious about wine and have a bit of cash to spend, I would definitely recommend it. The basic setup is that you put money on a card, and they have these machines where you can sample 30 or so really good Bordeaux wines. You choose whether you want just a taste, a half glass, or a full glass, and you pay accordingly.

The staff is really knowledgeable, and the wines they have to choose from are some of the best of Bordeaux (and the most famous). Many of the wines are quite

both a plus and a minus, depending on how you look at it. For me at least, I'm not likely to spend \$200+ on a bottle of wine, so on one hand this wasn't terribly helpful for me to try things out that I might drink back home. On the other hand, they've got most of the biggest names in high-end Bordeaux, and since I'm NEVER going to spend \$600+ on a bottle of wine, it was pretty cool to have the opportunity to try those out.

There are some

I'd say this place's real uniqueness is in the higher end. Expect to spend a bit of money, though--my fiancée and I were there for about an hour and we wound up spending about 100 EUR, but in my opinion it was well worth the visit!”

Evnoonan from Glastonbury writes:

“It's not often you get to taste some of the best wines produced in Bordeaux and Max Bordeaux offers you the opportunity to taste 2.5cl tastings for a reasonable price. They have a great selection and very knowledgeable staff!”

Macaw from Michigan writes:

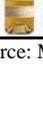
“On a recent cruise to Bordeaux, I made it a point to go to Max Bordeaux, a world-class wine gallery/tasting bar at 14 Cours de l'Intendance. They have a hundred or more of the best French wines in Enoteqe machines for tastings. You purchase a "debit" card, and each tasting is a different price, depending on the wine and the size of the tasting you choose. It adds up, but where else can you taste wines like Ch. Margaux, Latour, Lafite-Rothschild, Haut-Brion, Yquem, etc., plus many other great chateaux, for less than the price of a bottle of one of those great wines? It is a mandatory stop for any serious wine afficiando.”

Icie_lynx from Melbourne, Australia writes:

“Wonderful - very modern facility to taste top chateau's wines. It's not really a bar and there is no food accompaniment. Where else can you try a first growth grand cru???? At 25-30€per 2.5 (25ml), it's not cheap, but then again, it's a lot more expensive to buy the bottle! There are other wines starting between 3-10€per 2.5cl - and the white selection was outstanding value for money. We spent 100€pretty easily between the two of us. Great substitute for visiting the impossible chateau like Rothschild. Highly recommended!”

Source: Trip Advisor (<http://www.tripadvisor.com>)

APPENDIX E: SAMPLE MAX BORDEAUX WINE CELLAR PRICE LIST (750ML)

	<u>CLERC MILON 2007</u> <u>5ème Cru Classé en 1855</u> <u>Pauillac</u>	65 €
	<u>LANGOA BARTON 2005</u> <u>3ème Cru Classé en 1855</u> <u>Saint-Julien</u>	96 €
	<u>CLARENCE DE HAUT-BRION</u> <u>2007</u> <u>Second Vin de Haut-Brion</u> <u>Pessac-Léognan</u>	120 €
	<u>PICHON BARON 2008</u> <u>2ème Cru Classé en 1855</u> <u>Pauillac</u>	135 €
	<u>PALMER 2008</u> <u>3ème Cru Classé en 1855</u> <u>Margaux</u>	245 €
	<u>COS D'ESTOURNEL 2003</u> <u>2ème Cru Classé en 1855</u> <u>St Estèphe</u>	330 €
	<u>MOUTON ROTHSCHILD 2004</u> <u>1er Cru Classé en 1973</u> <u>Pauillac</u>	500 €
	<u>CHEVAL BLANC 2008</u> <u>1er Cru Classé "A"</u> <u>St Emilion GC</u>	600 €
	<u>MOUTON ROTHSCHILD 2003</u> <u>1er Cru Classé en 1973</u> <u>Pauillac</u>	615 €
	<u>MARGAUX 2006</u> <u>1er Cru Classé en 1855</u> <u>Margaux</u>	670 €
	<u>D'YQUEM 2006</u> <u>1er Cru Classé Supérieur en 1855</u> <u>Sauternes</u>	680 €

Source: Max Bordeaux (www.maxbordeaux.com)

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