

13th International Conference of the Academy of Wine Business Research

Conference Proceedings

July 5-8, 2022

Burgundy School of Business (BSB)
School of Wine & Spirits Business (SWSB)
Dijon, France



ISBN 978-0-9944460-2-2

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THE 2021 AWBR CONFERENCE – ORGANISERS’ PERSPECTIVES

The 13th Conference of the Academy of Wine Business Research was held in difficult circumstances, in the aftermath of the COVID-19 pandemic; many attended but a number, especially from North America, were unable to be with us. Nevertheless, the conference was very successful. As well as being in person we arranged for online attendance also, including presentations from presenters unable to come to Dijon, and this ‘mixed method’ worked very well. Many of the papers were held over from what should have been the 2020 conference – and we had a number of others submitted and accepted.

The conference took place from the 5th-8th July at Burgundy School of Business – with the last day a field trip in the region. Fifty-four participants attended in person and, at various times, fifteen virtually over the three days of presentations.

As we had originally planned, two years earlier, the first day was devoted to round tables on major themes with a focus on engaging with the wine industry. The first of these was on ‘The World of Wine Business After Covid-19’ and the second on ‘Sustainability in Wine Business’. These included researchers from around the world as well as industry representatives from Burgundy and beyond. These two were ably chaired by Armando Corsi from Adelaide and Simone Loose from Geisenheim, and we are grateful to them for their support. Sandwiched between these was an extremely stimulating round table on how researchers and the wine industry should engage with each other – again with speakers from both sides of the relationship. To keep a balance between the two sides, a journalist from the French edition of *The Conversation* – Thibault Lieurade – deftly ensured that all sides were well and fairly represented. These discussions cannot be included in our proceedings unfortunately, but they were very stimulating and helped lay the ground for where future wine business research might be going and allowed researchers to develop links which we hope will lead to creative and cooperative projects in the future.

The 6th and 7th July saw the main days for empirical papers in parallel sessions – and these form the body of these proceedings. Papers submitted were either full academic papers or extended abstracts. There were a number of papers on sustainability and consumers – showing the enduring popularity of the latter topic and the new significance of the former. We also had ‘Wine 4.0’, and ‘Covid-19’ as new session themes this year. Over 70 full papers and extended abstracts were accepted this year – with 17 of them as virtual presentations. Awards were given to Martin Hirche, Luke Greenacre, Magda Nenycz-Thiel, Simone Loose and Larry Lockshin for the best paper, Nathalie Spielmann for the best presentation and Anthony Bennett for the best paper by a new researcher.

The conference received invaluable aid from the Région Bourgogne-Franche Comté, the City of Dijon, the BIVB (Interprofessional Board for the Wines of Burgundy) and Domaine Armand Heitz, as well as the Pôle Bourgogne Vigne & Vin (notably Florian Humbert), Prowein, represented by Michael Degen, and Robert Joseph of Meininger’s International. We also welcomed Giorgio Delgrosso, Head of Statistics and Digital Transformation at the OIV (which has recently arrived in Dijon), who voluntarily contributed to a round table. We are very appreciative of this support – and for the continuing help and advice of the AWBR committee throughout the planning process and the conference itself.

As in past years we would especially like to thank the many people who shared the moderation of the sessions. We also appreciate technical support from the whole of the AWBR committee. Additionally, our School Manager in Dijon, Nathalie Grzeskowiak gave unstinting and uncomplaining administrative support over three years of planning, and we could not have done it without her. Others from BSB who helped included Laurence Cogan-Marie, Claude Chapuis, Marion Lieutet, Franziska Gourdin, Samantha Aylett, Cecile Schweitzer, Perrine Wardak, Florence Saiz, Stephanie Chaumard and Jacques Thebault. Finally, we should also acknowledge the invaluable assistance of a former student and current teacher, Lillian Liu, and three of our current students – Myriam Habib, Lu Mengting and Zhang Yinru – who all helped with the administrative and organisational tasks during the conference.

Finally, returning to the difficult context of the conference, we all want to say how wonderful it was to meet with old colleagues and make new friends after two years of being at a distance, and how much we appreciated the stimulation, warmth, intellectual exchanges and overall fun of being together again – even, often, over a glass of wine. In moderation, of course!

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Pivoting after a Societal Shock: Transactional vs. Transformational Leadership in the Wine Industry

A “Big Picture” Paper

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Abstract

◦Purpose – Has re-thinking the business models of wine producers become necessary after societal shocks such as COVID-19, natural disasters, political upheaval, and climate change? Should leaders of incumbent firms innovate and create better business models? In this theory building paper, we examine how wine business leaders transform their followers, organizations, and industry. Transactional leadership builds consensus around a strategy to sustain a culture of excellence, enhance motivation, and increase productivity (Senge, 1990). Transformational leaders, conversely, take companies into new directions as change agents; are courageous; believe in people; learn continuously; and have the ability to deal with complexity, ambiguity, and uncertainty (Tichy & Ulrich, 1984). Which style do wine businesses need now?

Organizational innovations are typically driven by the external macro-environment in which a wine business operates. Innovations have been characterized as tangible i.e. primarily related to investments in new production technologies, processes, and products) or intangible, i.e. primarily related to investments in human capital and social networks) (Ali & Nauges, 2007; Alonso et al., 2019). Although prior researchers have shown that wine businesses must maintain a balance between tradition and innovation, we demonstrate how societal shocks require re-balancing both leadership and business models.

◦Design/methodology/approach – Field interviews via Zoom across six wineries in France and the United States were conducted in late spring and early fall 2020. Respondents to structured questions about the state of their businesses expounded on their activities in response to

COVID-19 and natural disasters. Content analysis of the transcripts provide hypotheses regarding leadership approaches to maintain or innovate the business models in the face of societal shocks.

◦Findings – Many respondents have yet to reach a conclusion or a consensus on the benefits of innovation after a societal shock; others have been proactive in transforming their business models.

◦Practical implications – On a preliminary basis, wine producers appear to need guidance. Collaboration and cooperation among wine business educators could enable practitioners to gain access to shared resources, networks, information technology and know-how in order to cope with unanticipated change.

Key words: Societal shocks, Leadership, Innovation, Qualitative research, Theory building

Bridging the Gap between Research and Practice in the Wine Business: “The Wine Lab” Experience

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Abstract

This paper describes the experience of the three years European project “The Wine Lab”. The project has involved twelve partners from 5 countries and various associated partners across Europe and the US. The paper describes the tools developed to promote a dialogue between Universities and Entrepreneurs in the field of the wine business, with a particular focus on disadvantaged rural areas. Starting from the experience of The Wine Lab (www.thewinelab.eu), the authors want to stimulate a discussion on the effectiveness of participatory approaches for pursuing entrepreneurial education and for improving orientation towards innovative practices. Therefore, the paper proposes a reflection on further developments of research in the field and on the role of scholarly research for supporting wine business.

Key words: entrepreneurship, Academician-Practitioner gap, participatory approaches, disadvantaged areas, innovation

1. EXTENDED ABSTRACT

The competitive landscape of the wine industry is extremely various; European wine production is highly fragmented (Roberto, 2003; Morrison and Rabellotti, 2017) with a predominance of small independent producers. The number of appellations is impressive: in Europe, there are 439 PGIs wine and 1164 PDOs. Italy is the first country for the number of appellations (408

PGIs and 118 PDOs), and France is ranked second (361 PGIs and 75 PDOs). There is an abundance of quality wine production and wines that are made from local grape varieties in contraposition with international varieties. The development of the European wine industry is not homogeneous, and location plays a crucial role in defining the competitiveness of local wine industries.

In particular, location can influence the terroir and the distinctiveness of products. Secondly, it can be a strategic leverage for achieving competitive advantage. Many wineries face difficulties in improving their competitiveness since they are placed in disadvantaged areas (Scalabrelli & Lagomarsini, 2008). Some companies can be tough to be reached, or they have to make extreme efforts when cultivating grapes (i.e. steep slopes vineyards), that require extra costs for making wine and labour-intensive activities (Zottele & Delay, 2017); this is the case of heroic viticulture, for example.

Our curiosity has been captured by these companies who must manage difficulties in marketing their products and achieve profits. In the scenario of disadvantaged areas, the role played by wine for achieving economic development is crucial. Therefore, it becomes essential to manage innovation and to understand market trends and dynamics.

In 2016 we were awarded a three years grant (www.thewinelab.eu) within the Knowledge Alliance Erasmus+ framework: a European funded project with twelve partners from 5 countries and various associated partners across Europe and the US; our research focus was on disadvantaged wine areas and more specifically, our general aim was to help winemakers to enhance their competitiveness.

Background research has helped us to define our project and to individuate some research questions.

First of all, we have examined the relationship between local development and the wine industry

In general, we can say that the existence of an interaction between wineries and local community may create a breeding ground for local economic development.

This emerges from the work by Alonso and Northcote (2008) that shows that this relationship stimulates a local market for wine and job creation; as suggested by the authors, this kind of relationship brings to a win-win strategy and leads to business prosperity and enhancement of the quality of life.

The set of conditions that characterises the competitive environment where companies operate can stimulate the flourishing of the wine industry, as in the case of Casablanca depicted by Overton (2012).

Scholars also highlight the role that wine can have in diversifying economic activities and in improving the economic health of a specific area; Maciejczak (2018) describes this dynamic in Eastern Europe.

Thus, the capacity to establish relationships between people and other companies is of primary importance not only for economic growth but also for the development of innovation.

The active presence of a system of relationships in a specific area can positively influence the competitiveness of an industry (Porter, 1990). Clusters that are characterised by a consolidated system of relationships among stakeholders show a strong orientation towards innovation.

There is no doubt that where wine firms are embedded in localised networks, knowledge-based innovation is more likely to happen (Giuliani, 2007),

In this scenario, the role of Higher Education Institutions is crucial.

Background research shows that scholars have examined the relationship between University and wine business and its impact on local development. There are specific examples showing the role that educational institutions cover in the regional economic development: following the insights by Velluzzi (2010), we can say that an educational system or a research institution, when embedded in the surrounding area and community, can easily understand local needs. This relationship, as described by the case of the centre for oenology and viticulture in Walla Walla Valley in Washington State (Velluzzi, 2010) can create benefits for the industry and the population of residents and companies.

In general, Universities can play a key role in regional systems of innovation (Sternberg, 2007).

If on one side, there is no doubt that a relationship between Universities and Companies can be fruitful, on the other some elements that obstacle this collaboration can arise.

Bartunek (2007) explores the drivers that inhibit the efficacy of the relationship between academicians and practitioners and open to a multitude of questions and reflections on the methods to employ for improving the effectiveness of the academic – practitioners relationship. The work by Cavicchi et al. (2014) goes in this direction, and it introduces a reflection that includes not only communication effectiveness (as suggested by Bartunek, 2007) but also the methodologies that are more suitable to reduce the existing gap between academicians and practitioners.

This scenario was the background for the development of The Wine Lab project, that involved universities, companies and local communities in a dialogue to promote innovative practices and entrepreneurial education in disadvantaged wine areas. To this aim, the project has designed and delivered a set of tools and approaches to stimulate a dialogue that involves companies and universities, aimed to answer also to some specific research questions: What is the effectiveness of participatory tools for stimulating an entrepreneurial orientation in the wine business? How can the distance between thinkers and doers be reduced?

The project has focused on the implementation of some activities inspired by a participatory approach. In particular the experience of Winethons – wine hackathons – carried out at a national and international level and the introduction of regional hubs has stimulated a continuous dialogue among participants, and it has reduced the existing gap between academicians and practitioners.

Following research insights that motivate participatory approach in entrepreneurial education (Leitch, 2007), this paper outlines how in our view the adopted tools have helped the entrepreneurs to manage the complexity of their business and to open to innovation adoption in the wine business

The three years collaborative pathway has opened to a multitude of questions that can foster in our view, a discussion among scholars.

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ECONOMICS OF WINE

Does Geography Matter for Whisky Bottles Investments?

An Analysis of Scotch Single Malt Geographical Appellations

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Abstract

◦*Purpose* – Whisky has entered in the last few years in the category of alternative investments, such as fine wine before, but with higher return rates (Moroz and Pecchioli, 2019). Over the period 2015-2018, the average profitability of vintage single malt whisky investment was more than three times higher than wine, with respective return rates of 162.91% and 42.49% (Rare Whisky 101, 2018). However, it can be difficult to choose the right whisky, particularly with the increasing variety of products available on the market. For example, the 2019 edition of Jim Murray's Whisky Bible, which gathers only a sample of total world production, evaluates more than 4,700 whiskies which are traded on the second-hand market at prices that can vary significantly from one bottle to another. This article aims to examine the determinants of these differences by focusing more particularly on the impact of geographical appellations.

Except Moroz and Pecchioli (2019) and despite its significant return rate, the issue of investment in whisky has not been studied yet. On the contrary, the issue of investment in wine has benefited from an extensive literature since the pioneering works of Krasker (1979) and Jaeger (1981) (Le Fur and Outreville 2019). This literature aims either to evaluate the determinants of wine prices (Landon and Smith, 1997, 1998; Jones and Storchmann, 2001), the profitability of wine compared to traditional assets or other alternative investments (Masset and Henderson, 2010; Burton and Jacobsen, 2011; Dimson et al., 2015; Aytaç et al., 2016) or the nominal return rates of different vintages and vineyards (Masset and Weisskopf, 2010; Lucey and Devine, 2012). The difference in performances across vineyards and vintages relies on the fact that the financial value of a wine derives from its consumption value (Jaeger, 1981), which partly depends itself on the natural endowments of its vineyard (Gergaud and Ginsburgh, 2008; Ginsburgh et al., 2013), i.e. soil, slopes, exposure of vineyards and climatic conditions. Several analyses showed the significant impact of climatic conditions prevailing during the harvest and pre-harvest periods on price (Ashenfelter et al., 1995; Jones and Storchmann, 2001; Chevet et al., 2011) and the impact of soil characteristics on wine quality (Ashenfelter and Storchmann, 2010). Consequently, producers located in the same vineyard can benefit, on one hand, from an individual reputation related to the past quality of their own output (Ali and Nauges, 2007; Oczkowski, 2016), and on the other hand, from a collective reputation (Schamel,

2009; Ménival and Charters, 2013; Castroaita and Delmastro, 2014) through the geographical appellation of the vineyard. The literature provides useful insights on the effect on price of the respective levels of reputation (product, individual and collective reputation) as well as on their interaction (Schamel and Anderson, 2003; Cardebat and Figuet, 2004; Schamel, 2006; Haeger and Storchmann, 2006).

In the whisky industry, some countries such as Scotland, United States or France have enforced geographical appellations. One can wonder about the relevance of such appellations since distillers are not compelled to use local barley or malt to benefit from an appellation and are allowed to import these inputs whereas wine producers have to resort to the grape they produce. Given that, the aim of our research is to investigate the impact of collective reputations of geographical appellations on the price of single malt bottles and their interaction with distillers' individual reputations.

◦*Design/methodology/approach* – For our analysis, we use transaction data extracted from the www.worldwhiskyindex.com website. We retain only single malt bottles produced by distilleries from the five geographical appellations of Scotland (Campbeltown, Highlands, Islay, Lowlands and Speyside) for which we have location data (latitude and longitude). Our final sample gathers 751 bottles from 75 different distilleries over a 10-year period (from 2009 to 2018) on which we run hedonic price regressions using a classic log-linear model.

◦*Findings* – Our preliminary results tend to show that geographical appellations impact whisky bottle prices even when we control for other characteristics related to the production process and the distillery. Furthermore, we observe a positive effect of both age difference and distance between the distillery and the other distilleries of the same appellation and a negative effect of the average age of the other distilleries from the same appellation. In other words, all other things being equal, the farther and the older the distillery is compared to the other distilleries of the same appellation, the higher is the price of its bottles.

◦*Practical implications* – Overall, this research contributes to the literature related to whisky industry and investment with managerial implications for both producers and investors. It enables the formers to have a better understanding of the impact of different levels of reputation on the value of their output and provides the latters useful insights to make their portfolio choices.

Key words: -

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The Economics of Wine, Beer and Cider: Identifying Synergies and Complementarities

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Abstract

◦*Purpose – Wine, beer and cider are living a renewed interest among consumers, but compared to wine, only a few studies have been conducted on beer and cider. The purpose of this paper is to examine the possible developments and topics exploring the synergies between these fermented drinks.*

◦*Design/methodology/approach – The paper analyses the markets for wine, beer and cider and proposes that cultural influences may explain synergies or complementarities in consumer behavior and consumption. It further proposes to explore purchase behavior, decision making, and responses to pricing aspects for these fermented beverages.*

◦*Findings – Cultural variables have different impacts on the consumption of the three fermented beverages around the world as well as quality cues differently impact on price formation for wine, beer and cider in the consumers' eyes.*

◦*Practical implications – Over the last decade, wine economics has diversified going beyond the agricultural field and into information, industrial and environmental economics and finance. There has been a particularly growing research interest in issues related to consumer behavior, quality signaling and consumer search. This is a path to be followed to analyze synergies and complementarities between wine, beer and cider.*

Key words: wine economics, beer, cider, consumer behavior, price analysis

EXECUTIVE SUMMARY

The supply for “fun” drinks is rising and it is becoming difficult to tell the difference between wine, beer and cider. Spirits are considered “hard” drinks with a base of distilled alcohol, by comparison and contrast to the fermented drinks such as wine, beer and cider. You can drink cherry wines, co-ferment of beer and blueberry juice that taste like a Lambrusco or rosé crispy ciders with flavors of pears that taste like a Prosecco. The increasing hybridization of wine, beer, and cider makes each beverage becomes increasingly blurred and redefines the competition lines between products and markets.

The demand for wine, beer or other alcoholic beverages has been examined mostly separately in the literature, although wine is the most researched one compared to other beverages (Fogarty, JES 2010; Nelson, JWE 2013; Outreville and Le Fur, JAFIO 2020). Mitchell (JWE 2016) presents an original comparative study of the characteristics of wine and beer demand within the EU. Cider like wine is an experience good that possesses a few characteristics that differentiates it from other beverages. However, there has been limited scholarly work conducted on cider (Sousa, 2014).

Wine economics has emerged as a growing discipline that analyzes wine-related issues not only within agricultural economics but in adjacent fields such as finance, trade, growth, and environmental economics. Economists like Adam Smith, David Ricardo, John Stuart Mill or Leon Walras, all wrote, to some extent, about wine (Chaikind, JWE 2012). Although these early writings are related the value of vineyard land or trade, they refer to wine as an example. Nothing similar can be traced for apples orchards or cider, although cider was known in the Roman Empire and became popular with the Normans, whose conquest of England in the 9th century brought apple orchards and cider production and consumption (Watson, 2013).

A simple Google search for words such as *wine*, *beer* and *cider* (although Google hits of single words may result in an exaggerated count) results in a tremendous difference in favor of wine. Storchmann (JWE 2012) reports the results of this Google search, done on September 5, 2010, for beverage words such as *coffee*, *milk*, *tea*, *water* and *wine*. With 343 million hits, the word *wine* yields more hits than any other beverage, except for water. However, compared to words such as *bread* (450 million) or *apple* (705 million) the amount of Google hits for *wine* appears to be smaller.

Since Google Scholar hits more specifically in scholarly publications we confined the search by discipline (*Business, Administration, Finance and Economics*) for the period 2012-2022. For the considered beverages, *wine* hits more scholarly coverage than *beer* and of course *cider*. These results are in line with the emergence of a new academic field called *wine economics*. *Cider economics* or *Economics of cider* do not exist yet. However, there are many similarities between cider, beer and wine that need to be explored.

A comparative analysis of the markets of still wine, beer and cider reveals that cider market will register the highest growth in the next years (IWSR, 2019). The three markets show to be very concentrated from a consumption point of view. Nearly half of the market for wine and beer is covered by the top five consuming countries, and for cider the top five countries absorb nearly three fourth of the market.

Compared to wine, there has been significantly less scholarly work conducted on beer and cider. The purpose of this paper is to examine the possible emergence of topics exploring the synergies in academic research between fermented drinks such as wine, beer and cider. The demand function for alcoholic beverages can be derived from the maximization of the utility function of the consumer. It is time dependent on income, prices and on the consumers' subjective discount for consumption in alternative goods and saving. There has been a particularly growing research interest in issues related to consumer behavior and pricing factors. This is clearly a path to be followed to analyze synergies and complementarities between wine, beer and cider. (Costanigro et al., AJAE 2010).

A classification of price determinants is proposed (Outreville and Le Fur, BFJ 2020) and the framework is applied to wine, cider, and to some extent to beer.

Classification of Price Determinants

Class	Fixed of predetermined state of nature	Variable or adjustable state of nature
Geography/Agricultural	Region of origin, soil	Weather, Fruit variety
Time horizon	Vintage	Age
Public information	Appellation, Label	Reputation, Experts
Production costs	Type of product	Process, yield
Quantity supplied	Size of producer	Volume, competition

A comparative analysis for the determinants of price for wine, beer and cider needs to be developed to analyze the impact of geographical factors, public information and supply conditions.

Evaluating the Risk to Invest in the Wine Industry: What Skills should the Loan Officer Possess?

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Abstract

◦*Purpose* – This paper explores the evaluation strategy the loan officers have to develop when committing to wine businesses; in particular this study focuses on the inherent risks the wine production involves and the issue information asymmetry between stakeholders.

◦*Design/methodology/approach* – The research utilises exploratory case studies and perform an in-depth analysis of a series of semi-guided interviews of loan officers of three different banks, closely working with the French wine companies.

◦*Findings* – Our first findings reveal the importance of the industry specific knowledge for loan officers dealing with wine business to be able to measure risk, balancing quantitative and qualitative information while relying on their own experience.

◦*Practical implications* – This work lays the requisite groundwork to propose recommendations on the organisation of information process and specific risk measurements to guarantee higher ROI in the wine industry.

Key words: Wine industry, financial risks, wine tourism, wine producers, loan officers

1. INTRODUCTION

Wine is a living product very sensitive to its environment at each stage: from vine growing which is dependent on climate factors through wine making and wine aging till wine delivery dependent on temperature fluctuation, humidity levels, etc. This natural sensitivity brings complexity and uncertainty that is why the wine sector is characterised by high risks. The long production process imposes financial constraints and requires frequent support for funding. Small and medium wine producers heavily rely on banks in developing their business. The role of banks' loan officers is mainly to decide the attribution of recurrent short-, mid- and long-term loans to finance as an example the stocks, the equipment or wine tourism initiatives. Their decision is crucial in developing business activities, yet it involves a real expertise in the wine industry's risks in order to prevent potential failures and guarantee solvability.

Maque and Godowski, (2009) demonstrated the complementary between amount of information and its qualitative appreciation by loan officers working with SMEs. However, their study recognises the lack of knowledge of this fine balance on the entrepreneur's side and the asymmetry of information holding.

Few examples are found in the agriculture industry, and even less in the wine industry. Thus, our study paper aims to understand how loan officers appreciate the risk of failure when committing to wine producers in Bordeaux region. Taking a closer look at the dynamic of the risk evaluation, and the exchange of information, we aim to lay the requisite groundwork to propose recommendations on the organisation of information process and specific risk measurements for practitioners and their clients.

2. LITERATURE REVIEW

Evaluating the risk in small or medium businesses the literature focuses on predicting bankruptcy of SME's (e.g., Bredart (2014) or on forecasting difficulties (e.g. Du Jardin, 2019) The proposed models rely on an the indicators extracted from the accounting records: amount of debts, total assets, cash flow, total sales, EBIT and EBITDA, turnover etc... However, there is an important gap in the literature that considers the wine sector and its specificities concerning the production cycle which are mentioned above.

Having a closer look at the wine estates in the Bordeaux region, which represent SMEs, a few important components typical of the industry such as: value of the stocks, land value and land ownership should also be considered. Otherwise, estimation of the risks for wine businesses is incomplete in the case of classic SMEs' financial models.

The main inherent risk is the climatic risk, causing some years the complete loss of the annual production, such as the two recent main episodes of frost in 2017 and 2019 in Bordeaux area ¹. The frequency of these climatic accidents has increased in the past decade and are correlated to global warming (e.g., Van Leeuwen et al., 2019).

¹ Source : <https://www.sudouest.fr/economie/agriculture/gel-printanier-dans-le-sud-ouest-2017-et-2019-les-deux-derniers-grands-precedents-2074631.php>

In many wine regions AOC specifications involve aging of the wines, generating mid-term loans to finance the barrels, buildings, and stocks. The value of these stocks may evolve in time differently depending on quality of the final product.

SME's the company's asset is often uncoupled with the economic performance due to the value of the producing lands (Lemarié-Boutry, 2016). To ward off these specific risks, more and more independent wine producers are looking at diversifying their activities, including new distribution networks and new way to reach out to the customer (Alonso et al., 2015; Remeňová, 2018). Wine tourism is one of their option, but this opportunity generates needs of funding (Faugere and Bouzdine-Chameeva, 2013).

Based on the fact that the current developed models are uncomplete and not adapted to the specific aspects of the wine production, how do investors such as loan officers evaluate the risk of wine production businesses and the feasibility of business activities' development (e.g., diversification into wine tourism)?

3. RESEARCH DESIGN

A series of 17 semi-guided interviews with loan officers specialised in French wine estates accounts form the ground of this study. Data were collected in three banks located in Bordeaux and Cognac regions in 2021.

The following elements were approached during the interviews: the profile of the loan officer, their portfolio description; their relationship with the wine industry clients; the decision-making process to support an investment; their position facing the difficulties of their clients and their opinion on diversification of the activity such as developing wine tourism.

All the interviews were recorded, transcribed, and a text analysis has been executed.

4. PRELIMINARY FINDINGS

Despite their difference of size, commitment to the agriculture industry, and market share, all the three banks decided to detach the wine producing clientele in a special business unit, agreeing on the need of specialisation of the loan officers to serve this specific sector. The results to be presented include: the personal motivations of the loan officers, the specificities of the sector and the quality of the relationship with wine producers; trust-based relationship; a particular decision-making process to support an investment project with the specific indicators; conflicting opinion on wine tourism seen as a great opportunity but reluctant to fund this activity.

5. CONCLUSIONS

The first results enable us to build a quantitative database to list the main determinants the loan officers use to evaluate the risk of investing in wine business and prevent the information asymmetry.

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Weather Variables Predicting Wine Price in Bordeaux. Evidence from Web Data

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Abstract

◦*Purpose – Understanding the effects of weather on wine price in Bordeaux wine region. Testing the annual return of the hypothetical portfolio constituted by the examined wines.*

◦*Design/methodology/approach – Understanding the effects of weather on wine price in Bordeaux wine region. Testing the annual return of the hypothetical portfolio constituted by the examined wines.*

◦*Findings – Temperatures and rainfalls are the most important determinants of wine prices. Bordeaux wine region presents mixed results between being a winner or a loser in the past 70 years. From a climatic perspective it is a loser, from quality and price it is a winner. Therefore, adaptation measures are able to contrast and contain climate change in Bordeaux wine region*

◦*Practical implications – Check the status of the climate change problem in Bordeaux wine region.*

Key words: -

1. INTRODUCTION

Wine economics is a vast and well established subfield of economics that aims to study the production, distribution, consumption, and trading of wine. One of its subfields focuses on the relationship between wine price and its determinants. Determinants on the price of wines reserved to the retail market are manifold and their research represents a big part of the literature. Wine producers set the price of their products before releasing them into the market. Year by year, price can increase mainly due to market demand and to ageing potential. At the beginning, when price is set by producers, this can depend a lot on the vintage quality, which is mainly given by weather conditions throughout the year. On top of that, other important factors often examined in the literature are the producer's prestige and history, the viticultural area from whence the wine comes, the terroir, and the sets of techniques that are used in the overall wine-making process. Ultimately, however, the weather can have a significant impact on the quality of the vintage and, therefore, on its price. A wrong timing in which rainfalls occur, or too much drought in August, or a severe frost in the growing season are just some of the factors which can have a detrimental effect on grape quality; all of these elements will be reflected on the price. On the other hand, a perfect vintage can push the wine price up to as much as double from year to year. Ashenfelter (2008) finds that the difference in price from year to year can be of a 20 times factor. As an example, in the case of Château Petrus in my dataset, it is around 7 times.

Different techniques are used to explain the variability in wine price. Hedonic price theory is one of the most used techniques. It normally involves a two-step procedure, in which a hedonic function is estimated in the first stage, normally through a regression; next, in the second stage, the implicit price of a specific factor is derived as the partial derivative of the hedonic equation with respect to that specific factor. Normally the equation also is run with the constraints of a buyer's set of preferences and income. Hedonic price theory is extensively used in several different markets and for a large number of goods. It has also been used in fine wine market to gauge the impact of different factors into wine price. Outreville and Le Fur (2020) present a detailed review of the different categories of variables used within the hedonic framework. The different hedonic price functions and wine price determinants can be manifold. Wine quality, normally assessed through a rating system, ranging from 0 to 100, from 0 to 5 or from 0 to 20, is one of the main factors in determining wine price. Wine quality is given by the weather throughout the year and by the ability of the producer to manage the overall wine-making process. The use of wine quality directly in the equations to estimate wine price could present a possible endogeneity problem. Indeed, wine quality can be endogenous to wine price with a reverse causality problem, the rating being higher for high price wines; or with an omitted variable problem, the price of the wine being explained by other factors than quality, which are not present in the model and thus not easily measurable, but that are correlated with the rating. The producer ability can be one of them. To avoid a possible endogeneity problem using wine quality directly to predict wine price, I use a mix of weather variables, mainly temperatures and rainfall, occurred at different times of the year. These variables are exogenous to wine price, and they are a good proxy for wine quality. I also use a variable, called Age, which represents an index for the age of the vintage, and that it can be seen as the real rate of return for storing the hypothetical portfolio constituted by the wines examined. Climate data are retrieved from

the European Climate Assessment and Dataset (ECA&D) which is a gridded climate dataset containing information about temperature, rainfall, humidity, solar radiation and other variables. It covers the area: 25N-71.5N x 25W-45E. Cornes et al. (2018) build this dataset using gridded fields at a spacing of $0.25^\circ \times 0.25^\circ$ according to the latitude and longitude coordinates. Wine prices are taken from Wine-Searcher and are readily available online on the website.

2. LITERATURE REVIEW AND PROBLEM STUDIED

The literature review starts with the aim of categorizing the vast set of wine price determinants normally used in the literature to explain price differences. To the best of my knowledge, the most comprehensive and up to date review of all the wine price determinants is offered by Outreville and Le Fur (2020) who have identified a list of 117 papers written in the period 1993-2018. They carry out a detailed review of the different categories of variables used within the hedonic framework and they divided the wine price determinants in 3 main sections: geographical and agricultural factors, temporal factors, and public information.

Hedonic price theory is recently attributed to Lancaster (1966) and Rosen (1974), but it traces back to at least Court (1939). According to Outreville and Le Fur (2020), research on wine price determinants, through the use of hedonic price modelling, is attributed to Ashenfelter (1986) who launched a newsletter called Liquid Assets - The International Guide to Fine Wines, with the aim of applying quantitative methods to fine wine. Since the Ashenfelter paper in 1986, more than a hundred papers are published on wine price determinants, most of them underpinning the hedonic framework. Hedonic price theory normally involves a two-step procedure, in which a hedonic function is estimated in the first stage, normally through a regression; next, in the second stage, the implicit price of a specific factor is derived as the partial derivative of the hedonic equation with respect to that specific factor.

Regarding the financial aspect of the wine, Le Fur and Outreville (2019) offer one of the most recent and up to date review in the context of fine wine investment. The fine wine return is analysed in more than 40 papers, and the authors make a review of fine wine investments in a mixed-asset based portfolio or in a wine-only portfolio. In both cases, returns are always positive. Fogarty (2006) applies hedonic regression to wine price using the Australian auction house Langton data, to shed light on the Australian market. The study is conducted over a period of ten years, from 1990 to 2000, and the data are quarterly. On average, returns per quarter amount to 2.35% with a standard deviation that is equal to 4.42%. The result says that the finest wines are the one with less risk compared to the one that are less expensive. Although the study shows that there is always some value in putting wines into mixed asset portfolio, Fogarty and Jones (2011) points out that caution must be taken when investing in wines to diversify the portfolio. The potential diversification benefit can vary a lot depending on the way the index prices are built, and the diversification method used. A classification and comparison of different wine returns estimation techniques can be found in Fogarty and Sadler (2014). The authors exploit the same dataset used in Fogarty (2006) for Australian wines with two additional years, so from 1988 to 2000. The dataset consists in 14'102 sale observations from the auction house Langton. On this dataset, the authors apply 6 methods to estimate the wine price returns, 4 of them which are regression based and 2 of them that are non-regression based. The four regression models are: hedonic regression, the repeat sales model, the hybrid model. The 2 non-

regression models are the Average Adjacent Period Return Model and the Commercial Index Model. The best trade-off between complexity and accuracy of the model is expressed by the pooled model.

Wine is an agricultural good, therefore it is subject to the conditions of the weather throughout the year. The impact that the weather can manifest on the final quantity and quality of the berry, and so on the final wine, is especially important during the growing season; and there are some moments, like veraison and harvest, that is crucial. As it is well known, according to Jones et al. (2005), there can be winners and losers from any climate change. Storchmann (2005) uses a unique dataset containing data on the Schloss Johannisberg winery in Rhine Valley over more than 300 years, from 1700 to 2003. The authors convert the verbal quality assessment into 5 quality ranks using an ordered probit model. A 1% increase in temperature in the growing season is able to produce an increase of 20 to more than 50% in the probability of being ranked number 1 into the 5 ranks system. The conclusion is that the global warming is able to ameliorate the wine quality in the Rhine valley. Ashenfelter and Storchmann (2010) use a hedonic solar radiation model to assess the effect that climate change has on the quality of vineyards in the Mosel Valley in Germany. The structural model of solar radiation is able to measure the amount of energy collected by a vineyard. Then, an econometric relation between energy and vineyard quality is established. The hedonic equations is equipped with heat and energy variables, and it allows for an assessment of the temperature impact on the quality and price of the wine. Therefore, temperature and solar radiation relationship can be used to forecast the effect that climate change has on crop and price of the vineyard. The authors also use time series variation of the temperature to study the impact of the temperature on land and crop prices. Both methods reveal that highest temperatures will increase the value of the land. The increase in temperature will make the grapes riper. The augmented ripeness in the case of Mosel Valley is more than proportionally linked with wine revenues growth. Under a stress scenario of a 3°C increase in temperature, the study finds out that the vineyard would almost double its value; on the other hand, under a scenario of 1°C increase in temperature, the vineyard value will increase by more than 25%. Therefore, according to the theory of the winners and losers by Jones et al. (2005), Mosel and Rhine valley are both potential winners in the climate fight. Chevet et al. (2011) use a unique dataset covering 209 years, from 1800 to 2019, to study the effect of climate on a single Chateaux in Pauillac. Finally, Ashenfelter (2017) applies hedonic regression to the value of the land to find out which land become more or less suitable after the impact of climate change. After establishing the econometric relationship between climate and quality, these equations can be applied to other area. The relationship is first established for Burgundy Bordeaux, Rioja, and the Piedmont, and then applied in Czech Republic.

3. RESEARCH OBJECTIVES

Weather plays an important role in determining the potential quality of future wine and its price. The first aim of this paper is to test whether wine price in the Bordeaux region can be predicted by a combination of weather variables. If it can, these variables can be used to predict wine price as soon as the growing season is terminated. The second goal of this paper is to measure whether the Bordeaux wine region is an overall winner or a loser in the fight against climate change in the past years, according to the theory of winners and losers by Jones et al. (2005). It

is very interesting and difficult to understand if it is a matter of climate change by itself, or if the producer ability has somehow increased over the years with the help of new technologies or with an increased use of adaption measures. It is interesting to note that from 1990 to 2019, the average quality of vintages is steadily above 80 points, with an average of 90 points as it is shown in the Figure 1 below. From 1960 to 1999, so over the same time frame of 30 years, but in the previous period, the average is 78 points. Therefore, what is causing the 12-point difference? Is it just due to climate change, and if so, Bordeaux is momentarily a winner, or is it driven by something else, such as increased producer ability, new technologies adopted, or, maybe, by a relaxation of the vintage score criteria? The vintage score is an average given by most influential wine critic journals around the globe, like Wine Advocate by Robert Parker or Wine Enthusiast, or Wine Spectator, whose opinions are highly recognised and valued. One thing is clear, that the variability after 1993 is diminishing significantly. Of course, high scores are present before 1993, too, as the notable 1959, 1961, 1982, and 1990 vintages show, but they are far less compared to recent years and there are a lot of bad vintages as well: there are 10 vintages below 65 points which is considered a very bad vintage score. After 1993 there is not one single vintage below 80 points. The variability is clearly decreasing significantly, so what is happening after 1993? After 1993 there is a period without vintages scoring below 82 points. The average over the entire period, from 1952 to 2019, is 83.

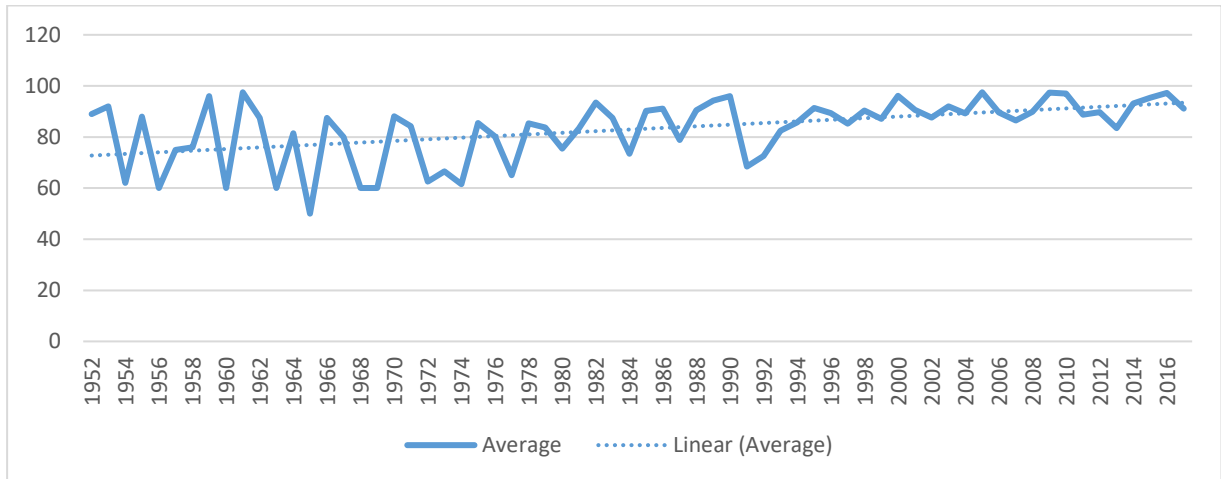


Figure 1: Vintage score from 1952 to 2018 in Bordeaux Wine Region

Finally, the third aim of the paper is to test how much is the annual return of the hypothetical portfolio of the 23 Chateaux taken from Wine-Searcher. This will be benchmarked with previous results.

4. RESEARCH METHODOLOGY

The model is specified in 4 regressions of an index representing Wine Price as dependent variable and weather variables and Age as predictors:

$$WP_i = \alpha + \beta TG_i + \mu Age_i + \varepsilon_t \quad (\text{eq.1})$$

$$WP_i = \alpha + \beta TG_i + \gamma SM_i + \delta TX_i + \mu Age_i + \varepsilon_i \quad (\text{eq.2})$$

$$WP_i = \alpha + \beta TG_i + \gamma SM_i + \delta WR_i + \delta TN_i + \mu Age_i + \varepsilon_i \quad (\text{eq.3})$$

$$WP_i = \alpha + \beta Age_i + \delta TA_i + \mu TA_i^2 + \vartheta TX_i + \pi TX_i^2 + \varepsilon_i \quad (\text{eq.4})$$

Where WP is the wine price index built regressing the price logarithm of the Châteaux on dummy variables for vintage, year, and Château. TG represents the average temperature from May to September. The higher the temperature, the better it is, as grapes in growing season need a lot of sun to produce sugar that will become alcohol after fermentation. Sun in the Bordeaux wine region is essential as it can be wet and cloudy due to the Atlantic exposure from the West; and, in general, the production of red wines requires a lot of sun, therefore I would expect a positive impact by this variable. SM represents the rainfall occurred in August and September, during the late part of the growing and harvesting seasons. In this period rainfall has a double sword effect. Too much or too little can be detrimental: too much is going to dilute the grapes juice yielding a diluted wine, too little can cause severe drought and can results in an unbalanced and flabby wine. A right amount of rainfall in the right moment can be the difference between a normal or a very good vintage: normally if producers could choose a scenario, they would go for the one where there are not so many precipitations and the sun hits and matures the grapes, therefore the less it rains in this period, the better it is for the price. Although, if the weather is too hot, and without rainfalls, it can be equally detrimental for the grape and have the opposite effect. Therefore, I would expect a negative relationship but not with a high magnitude. TX and TN represent average maximum and minimum temperatures in August and September. They are drawn from a slightly different dataset than TG; indeed, while TG is drawn from the daily mean temperature dataset, TN is drawn from the daily minimum temperature dataset, and TX from the daily maximum temperature dataset. In the case of the maximum temperature, I would expect a positive sign, as a high amount of sun is needed in this period. However, it can have a negative sign as the amount of sun is important, but too much heat can be dangerous, confirming that balance is key when producing wine. In the case of the minimum temperature dataset, the lower the temperature, the better it is for the wine, as acids inside the grapes are able to increase with cool temperatures overnight, thus establishing again the optimal sugar-acid level. Therefore, I would expect a negative sign, as this dataset contains the information of the minimum temperature registered in the day; the higher the temperature, the worst it is for the wine and therefore for its price as it does not reach a lower temperature to cool the grapes and establish the correct sugar-acid level. WR represents the rainfall occurred from October to March, during the pre-growing season. Normally, a good vintage is produced when this season is wet, but not excessively, therefore I would expect a positive sign and not a heavy impact. Age represents the age of the vintage, and it can be seen as the real rate of return to holding the wine portfolio. T represents the average temperature over the entire year, the magnitude of the increase is 1.39°C. The sign of this variable is expected to be positive as well. Finally, TA represents the average temperature in August and September, and I would expect a positive sign as more heat is needed in this period. The second aim of the paper, as already mentioned, is to check whether the Bordeaux wine region is a potential winner or loser in the climate change contest. The first graphs below is representing average temperatures throughout the year; the second is about the total rainfall occurred in a year. The first time series shows that temperatures are increasing over the years. The average temperature in the first 22 years, from 1952 to 1973 is 12.5°C, in the subsequent 22 years is 13.08°C, and in the last 22 years, is

13.9°C. The average temperature has increased almost 1.4°C in the past 66 years, from the first step to the third.

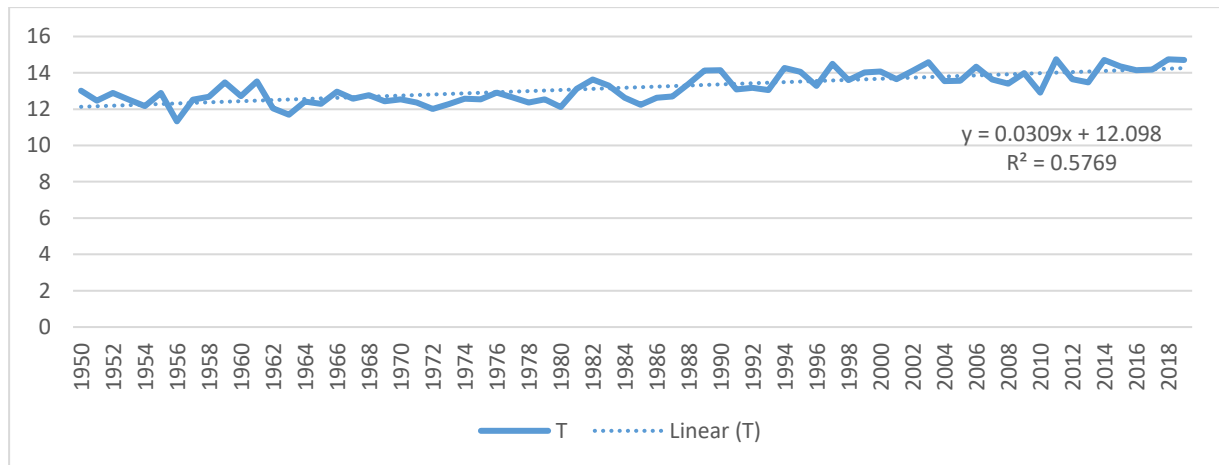


Figure 2: Average Temperature from 1952 to 2018 in Bordeaux Wine Region

In the figure below, rainfalls are plotted. The trend is descending over the entire period. It is interesting to note that, if I take the average in the same time frame as in the temperature case, I have 823, 854, and 768, respectively. Although in the second period there is an increase in the amount of rainfall, in the last 22 years, rainfall is steadily declining. Rainfalls are measured in mm., and they are retrieved from ECA&D.

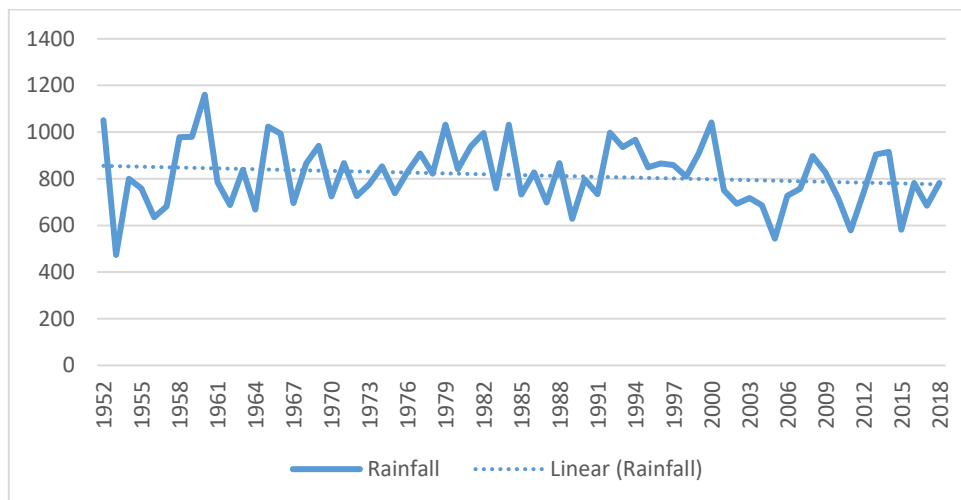


Figure 3: Rainfall occurred from 1952 to 2018 in Bordeaux Wine Region

These 2 variables show 2 effects that climate change is having on our planet on temperatures that are rising, and rainfall that are diminishing. These two factors combined can be detrimental to wine making process; however, winemakers today are able to compensate part of these effects with adaption measures

5. RESULTS

In Table 1, preliminary results are shown. The first, second, and fourth models have a longer time frame, from 1952 to 2014, while the second third (eq.3) is run from 1980 to 2014. The different time span is due to the fact that some of the vintages between 1952 and 1980, are now rarely sold and are not easy to find in the market. From 1980, there is much less variability in the frequency that it is found in Wine-Searcher. Model 1 is run with just 2 variables, Age and TG both with positive sign. The coefficient on Age variable is positive and around 2%. TG coefficient is positive as well and with a magnitude of nearly 20%. The predictability of the model, given by R^2 is around 38%. When the other 2 variables, SM and TX, are added into the model, the predictability grows up to 45.3%. Model 2 has a positive sign for TG, confirming the hypothesis that temperatures from May to September have had a positive effect on wine prices. At this time of the year, heat is preferable to wet weather because grapes need the sun to burst and complete their growth. Model 2 has a negative sign for SM, which measures the rainfall from August to September; a wet weather in these months is not optimal for prices, as too much rain produces diluted wines. The sign of TX is negative: the average temperature in August and September. Here producers and wine experts sometimes disagree: some of them would expect a positive sign, in accordance with TG variable sign; others instead think of the sign as negative. In model 2 the sign is negative: the higher the maximum temperature, the worse it is for the price of wine. One can argue that too much heat can be bad for the grapes: so, heat is necessary though in reasonable quantity, while, when it is measured by the maximum temperature, it can be detrimental to wine quality and, therefore, to its price. It can cause severe drought whereby wine can have an unbalanced level of sugars and acids. Model 2 has a positive sign for Age. It is interesting to note that Age and TG appear in all of the 3 specifications of the model. In the shortest time frame model, the age coefficient is around 1% whereas in the other two longer time frame models the coefficient is around 2% which is in line with the other results as in Ashenfelter (2008) but less than Dimson et al. (2015). It is interesting to note that in the shorter model, the age coefficient is half compared to the models in the longer time period, meaning that the more you hold the wine, the better it is for your return. In the model with the coefficient of 1%, the return generated of holding the wine portfolio is around 1% per annum over the entire period, so from 1980 to 2014, while it is around 2% from 1952 to 2014. Model 3 estimation period is from 1980 to 2014, therefore with 35 data points. The R^2 is almost 61% and it can be higher due to the shorter time frame calibration period. Age coefficient is around 1% per annum, therefore the shorter the time frame, the lower the return you can have from this specific wine portfolio. This makes sense from an investment point of view as older wines should give higher return; the more you keep a wine in the portfolio the higher should be the reward. This is true for Bordeaux wines that are prone to ageing but is also generally true for other red wines that age well. Every red wine has its own ageing curve and given the proper cellar conditions and sometimes a bit of luck, a red Bordeaux wine can age for at least 50 years and there is not really a limit. Some still exceptional old vintages are Château Petrus 1929 and 1945, Cheval Blanc 1947. Model 3 has a positive sign for TG and a negative one for SM in line with model 2. TX variable is not present in this specification but there is WR which measure the average rainfall occurred from October to March. WR here has a positive sign and a small magnitude. As already explained, the rainfall in the pre-growing season is necessary for the

correct development of the grapes, although an excessive amount is not optimal, and this is confirmed from the low magnitude. The last variable is TN, which measures the average temperature in August and September and as for TX, this variable is not drawn from TG (daily average temperature), but it is drawn from the daily minimum temperature dataset. Therefore, it measures the minimum temperature occurred in that particular day. This variable is very interesting because it confirms the fact that grapes need to cool down during the night and re-establish the correct sugar-acid level, but again, not in an excessive way, as too much cold can cause acids to prevaricate on sugar therefore resulting in an un-balanced wine. In model 3 there is not TX which is present in model 2; however, the data show that the best meteorological conditions are often in the middle and nor at the extreme. Too little or too much sun, rainfall, and cool nights are often not optimal: what is optimal is a balance between the different combinations of factors. This poses a serious problem due to climate change as it is demonstrated that extreme events are now more frequent than in the past. Model 4 has a quadratic form in it for the variable TA. It confirms the importance and magnitude of variable Age, and it establishes a high relevance of variable T, which is the average temperature across all year. The magnitude is about 30%, confirming the importance of the temperature in the wine-making process: for a 1.0°C increase, the price of the wine increases by 30%. This is just a hypothetical result, as temperature does not increase every year by 1°C. Regarding the quadratic form that models the variable TA, the maximum is reached at 18.74°C. Beyond this point, and according to the model, prices should start to decrease as excessive temperature can be detrimental to wine prices. However, according to vintage ratings and prices, this is not happening, as there are a lot of vintages, especially after 1993, where ratings and prices are higher. This may suggest that adaption measures are helping vintners in Bordeaux wine region to mitigate the bad effect of temperature increase. In Figure 1 above it is clear how much the vintage score has improved throughout the years. The variability after 1993 has clearly diminished. In and, average temperatures are raising and rainfall declining. The temperature trend is in line with climate change predictions about rising temperatures. As to rainfall, evidence in support of a decreasing trend is more controversial: and there is no consensus over the fact that a lower level of rainfall is detrimental to grapes. The Bordeaux wine region is an example of successful adaptation of local wine production techniques to decreased levels of rainfall. As a result, a number of exceptional vintages is on the rise for the past 30 years.

Table 1: Preliminary Results

Variable	(1)	(2)	(3)	(4)
Age: Age of the Vintage	0.020***	0.021***	0.010*	0.018***
TG: Average Temperature May - September	0.198**	0.349***	0.407***	
SM: Rainfall August - September		-0.003**	-0.002*	
TX: Average Temperature August - September		-0.150*		-8.879***
WR: Rainfall October - March			0.001**	
TN: Average Temperature August - September			-0.235***	
T: Average Temperature over the entire year				0.291**
TA: Average Temperature August - September				10.445***
TA ² : Average Temperature A - S squared				-0.279***
TX ² : Average Temperature A - S squared				0.185***
Constant	-4.675***	-3.413**	-4.760***	3.514
N	63	63	35	63
R-squared	0.400	0.489	0.667	0.554
Adj. R-squared	0.380	0.453	0.609	0.506

6. CONCLUSIONS AND MANAGERIAL IMPLICATIONS

This paper confirms the important effect of rainfall and temperature on wine price. Once the Bordeaux wine region model is perfected, it will be possible to expand its reach by applying it to other wine areas, such as the Barolo, Napa Valley or Chianti regions. The gridded climate dataset, used as an input, contains information about an area covering 25N-71.5N x 25W-45E coordinates, therefore covering most, if not all, the important viticultural areas around the globe. Therefore, an open future question would be to apply the model to other viticultural area and check whether the same relationships apply. Regarding the climate change fight, the results suggests that Bordeaux is a potential winner in the fight against climate change in terms of adaption measures, but a loser from a climate change perspective. Returns made with the hypothetical portfolio are around 2% per annum in the longer framework, from 1952 to 2014, while it is around 1% from 1980 to 2014.

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Economic Sustainability of Steep Slope Cultivating Wine Estates

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Abstract

◦*Purpose – Historically, steep slope emerged to make use of marginal agricultural land and to overcome climatic limitations. With increasing viticultural mechanisation of flat sites and climate change many historic steep areas are on the decline, despite they are publicly subsidised according their degree of slope. Existing research is limited to the cost of viticulture in steep slope sites, where the limitation in mechanisation was identified as the main cost driver (Strub, Kurth, & Loose, 2021; Strub & Loose, 2021). So far, it is unknown whether steep slope cultivating wine estates can compensate higher costs through higher market prices from consumer appreciation for steep slope wine.*

To date there is a lack of empirical research, of how the degree of slope and mechanisation of steep slope sites affect overall business performance and economic sustainability of wine estates. Research that aims to isolate the effect of steep slope viticulture has to take other important drivers of business performance simultaneously into account. Foremost estate size and yield are two important drivers of economies of scale (Perretti, 2020; Sellers-Rubio, 2010; Tudisca, Di Trapani, Sgroi, & Testa, 2013). Because steep slope wine estates with high shares non-mechanised sites are known to be smaller than average, the limiting effect estate size ought to be separated from the impact of slope and mechanisation. This research aims assess the effect of steep slope and its mechanisation on the economic sustainability of wine estates, controlling for the factors of yield and size.

◦*Design/methodology/approach – The framework to assess wine businesses' economic sustainability suggested by Loose et al. (2021) was utilised to derive five main hypotheses about the effect of steep slopes on inputs and standardised costs, costs per output, output valued at sales price, sales price and profits (Figure 1). Business data from balance sheets, income statements, work force, acreage and yield information of 289 wine estates from different German wine growing regions was used for analysis. To reduce annual vintage effects data from three business years 2013 to 2015 were modelled by linear regression.*

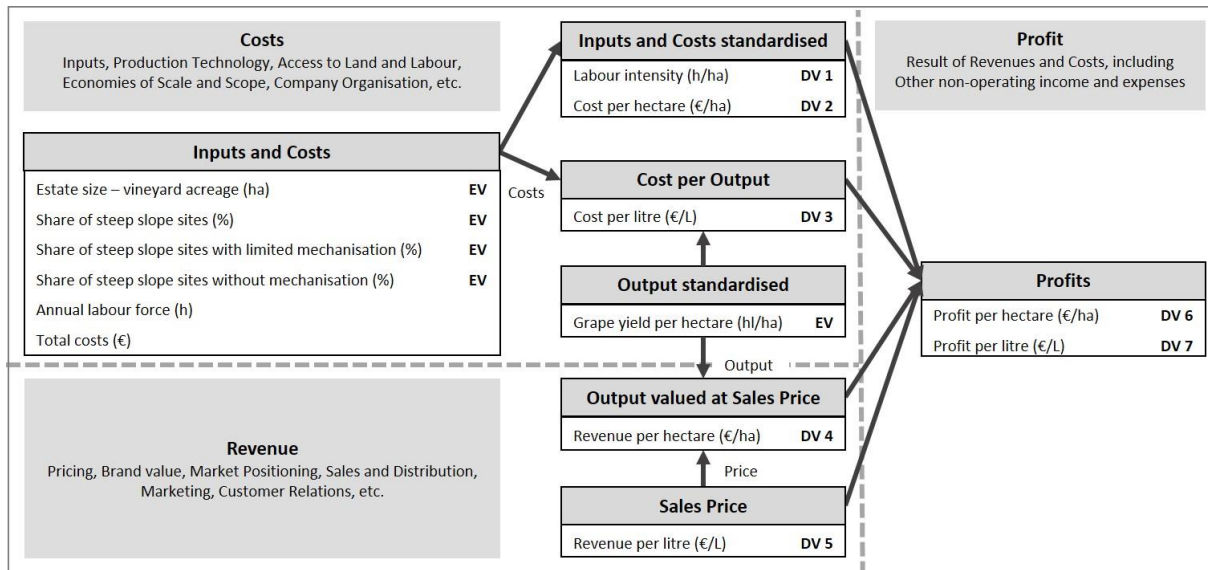


Figure 4: Framework of economic sustainability based on Loose et al. (2021), used for hypothesis and estimation, EV – explanatory variable; DV – dependent variable.

◦Findings – Results for the five hypotheses are summarised in Table 1.

Table 2: Results of analysis for hypothesis

Hypothesis	Dependent variables	Results
H1: The share of steep slope does not affect labour intensity, cost per hectare and cost per litre.	Labour intensity Cost per hectare Cost per litre	Supported Supported Supported
H2: The share of sites with limited or no mechanisation significantly increases labour intensity, cost per hectare and cost per litre.	Labour intensity Cost per hectare Cost per litre	Not supported Partly supported Partly supported
H3: The share of steep slopes does not affect revenue.	Revenue per hectare Price per litre	Partly supported Supported
H4: The share of steep slopes does not affect profits.	Profit per hectare Profit per litre	Supported Supported
H5: The share of limited- or non-mechanised sites significantly decreases profits.	Profit per hectare Profit per litre	Not supported Not supported

On the cost side only the relative share of steep slopes without any mechanisation requiring full manual viticultural management significantly increased cost per hectare and cost per litre. The share of steep slope vineyards classified only by its gradient did not affect labour intensity or costs. Costs were most strongly affected through economies of scale by acreage size and yield.

On the revenue side, the share of non-mechanised sites had a significant positive effect on revenue per hectare but not on revenue per litre. While wine estates suffer from higher costs from limited mechanisation they do not benefit from higher market prices. The profits were affected neither by the share of steep slopes nor the mechanisation intensity. Higher yield increased revenue per hectare but decreased the market price. Higher size and yields also affected the profits most significantly resulting in higher profits both per litre and per hectare with rising farm sizes and average yields.

◦Practical implications – The study has implications for wine estates' business strategies and for public policy's efficient support to sustain steep slope viticulture. Public subsidies should not be related to slope but to the degree of mechanisation of steep slopes. Mechanisation can help to overcome negative effects of steep slopes on economic sustainability but is related to higher cost of capital (Strub & Loose, 2021; Strub, Stoll, & Loose, 2021). Strategies that permit wine estates to benefit from economies of scale from business size and provide sufficient yield (e.g. irrigation) are most promising in maintaining steep slope areas.

Key words: Business performance, economic sustainability, mechanisation, production costs, profitability, steep slope viticulture, Germany.

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WINE 4.0

Future Avenues for Market Research – Digital Infrastructure to Automatically Collect Sales Data from Wine Producers

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Abstract

◦*Purpose – Wine is sold through a multitude of different channels. Existing market research methods can only provide partial information and often do not cover specialty wine retail, the on-trade and cellar door sales. Several methods aiming to cover those channels suffer from limited reliability and validity. A new research paradigm of collecting producer sales data aims to overcome this research gap.*

◦*Design/methodology/approach – A digital infrastructure was developed and implemented to automatically collect sales data information from participating German wine producers. A standardised interface format was defined to harmonise the data. Five providers of Enterprise Resource Planning (ERP) software were connected through the interface to the researchers' central databank. Participating wine producers automatically send their past and current detailed sales data through the interface.*

◦*Findings – After a detailed process of data cleaning a first sales analysis report was provided to participating producers.*

◦*Practical implications – The digital infrastructure represents a new paradigm to collect valid and reliable market information for wine. The analysis of the detailed and extensive data will provide insights into many areas of key interest to wine researchers and the wine sector.*

Key words: sales data, multi-channel, digital interface, big data, validity, market research

1. INTRODUCTION

The wine sector is characterised by a fragmented structure, both in production and in distribution (Cusmano, Morrison, & Rabellotti, 2010; Vergamini, Bartolini, Proserpi, & Brunori, 2019). Other than most FMCGs wine is sold through a large number of distribution channels, such as food retail, specialty wine stores, online stores, direct to consumer sales and cellar door transactions (Mariani, Pomarici, & Boatto, 2012). In many countries a substantial part of wine volume and particularly value is consumed out of home in diverse outlets of gastronomy and hotels (Catapano, Pomarici, & Boccia, 2012). Because of their higher value

per unit sales channels with smaller market shares next to food retail are often of particular interest to wine producers (Lockshin & Corsi, 2012).

1.1 Strength and limitations of market research methods

Most markets for consumer goods are tightly monitored through extensive market research to discover changes and trends early as well as to measure price shifts (Sharp, 2016). There are a variety of market research methods that can be broadly distinguished into measurements of transactions and measurements of statements (Hair, Celsi, Ortinau, & Bush, 2010) with household panel data being a mix of both (Table 3). Each market research method has its strength and weaknesses. The quality of food retail scanner data, which is aggregated by large market research companies such as Nielsen and IRI, depends on the degree of coverage of the various retail companies (Bronnenberg, Kruger, & Mela, 2008). For instance, in Germany the discount retailers Aldi and Lidl, which represent a substantial share of volume for food and wine, do not provide their scanner data to market research agencies. There are also geographical differences in coverage (Muth et al., 2016). Its strongest weakness lies in the limitation to food retail. Other channels and out-of home consumption are not represented.

Table 3: Sources of market information for wine

Type	Source of information	Strength, focus	Limitation
Transactions	Scanner data (Nielsen, IRI)	Transactions in food retail, in-home consumption High validity, reliability depends on coverage	Other channels and out-of-home consumption missing
	Online transaction data (e.g. amazon, winery's own online shop)	Detailed, reliable and valid information about product, buyer and context	Limited to small market share of online sales, analysed proprietarily
Mix form	Household panel data (Nielsen, GfK, Kandar)	Combination of household characteristics with ex-post purchase records	Limited to at-home consumption, often not representative for high value chains (specialty wine retail, cellar door, online)
Statements	Consumer surveys	Beliefs, values, motivations can be elicited in addition to behaviour	Self-selection bias, social demand effects, limited ability to introspect and recall
	Producer surveys	Coverage of all sales channels including direct transactions with gastronomy	Self-selection bias, time restriction in providing valid sales information Limited to national producers, import not covered

Transactions in online stores provide detailed and extensive information about products, buyer and context. Data from online wine sales is rarely shared and mainly analysed proprietarily.

Household panels depend on consumers being willing to record their complete buying transactions. They are known to attract a certain type of consumer with a higher availability of time, which is diligent, willing to take on that burden and motivated by an interest in extra income (Duncan & Hill, 1989). These consumers are usually not representative for consumers of highly valued wine, who are of higher social class, have a higher income and usually lack time (Lusk & Brooks, 2011; Meyer, Mok, & Sullivan, 2015). Because wine sold outside of food retail is not always labelled with barcodes the research agency cannot easily match its product characteristics. Therefore, panel members would have to record every single product characteristic, which they are more likely to avoid. High value channels are insufficiently covered in household panel data, a fact that some agencies (Nielsen) more openly admit than others (GfK).

Consumer surveys are very widely used in wine marketing research (Lockshin, 2003; Lockshin & Corsi, 2012). Their strength lies in asking the “why” of behaviour but they suffer from social demand effects, self-selection of consumers to be part of online panels and the psychological limitation of consumers to introspect and recall their often subliminal purchase decisions (Mueller, Lockshin, & Louviere, 2010; Penn & Hu, 2018). As a result, the external validity of results from consumer surveys is often questioned (Chandon, Morwitz, & Reinartz, 2005).

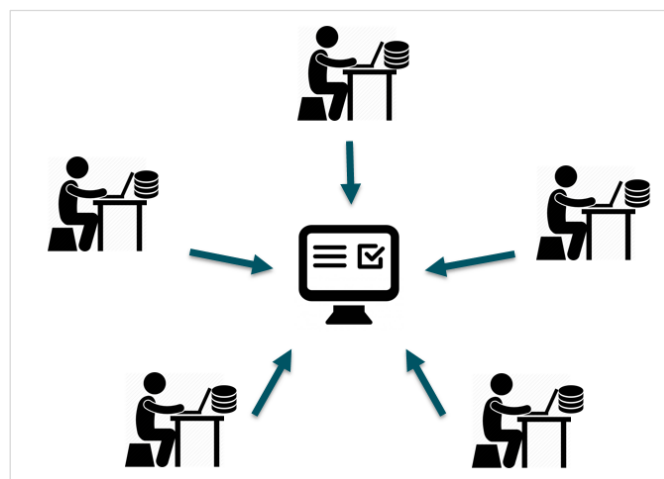


Figure 5: Initial situation – businesses responding to online survey based on data from their enterprise resource planning system (ERP databases)

Producer surveys are somewhat less common (Loose & Pabst, 2018, 2019, 2020). Their benefit lies in covering all sales channels, which are directly served by producers. Thereby they can at least provide some information of wine sales to gastronomy or hotels, which are generally very difficult to track because of the extreme diversity in sourcing channels. From a national perspective producer data cannot cover imports and the multitude of transactions through wholesale and intermediaries. Similar to consumer surveys the reliability of information provided in producer surveys is limited and depends on the producers’ willingness to retrieve and report the analysis their sales records (Figure 5). This is not always the case. In a survey of more than one thousand German wine producers on their sales channels and average revenue Loose and Pabst (2018) received responses such as an average price of 5,00 €/bottle, which is most likely a rough estimate and not reliable information extracted from producers’ sales software.

1.2 Information gap

As a direct consequence of these limitations, the wine sector suffers from poor information about channels with high margins, such as direct to consumer sales, cellar door sales, producers' online sales and gastronomy (Lockshin & Corsi, 2012). This shortcoming was particularly painful during the Covid crisis when sales shifted strongly between channels (Dubois et al., 2021; Wittwer & Anderson, 2021). Because some channels are either measured poorly or not measured at all, absolute changes in volume and value of wine sales remained unknown. For instance, Germany reported a strong growth of wine sales in food retail but could not quantify the losses in the on-premise sector (DWI, 2021).

Wine producers have to adjust their decisions depending on market changes, such as shifts in consumer usage of sales channels and changes in the demand for organic and sustainable wine. Similarly, information about changes in the demand for wine styles (the rise of rosé) and in grape varieties are of high value to producers when making long-term decisions such as planting cultivars. Their marketing and targeting decisions would also benefit from knowledge about regional differences in demand and willingness to pay.

Because of the generally low economic sustainability of the wine sector, it is important for wine estates to make profitable pricing decisions. Benchmarking pricing levels of different sales channels are therefore of particular interest to wine producers (Bennett & Loose, 2022a, 2022b).

1.3 Objective of research methodology

The aim of the digital sales analysis was to fill this gap by developing and implementing an infrastructure for the automated collection of sales records of a large number of German wine producers directly from their enterprise resource planning (ERP) software. In short, the digital methodology should replace stated information by an automated collection of market data. Specifically, the solution should provide detailed, reliable, and valid sales information covering product, pricing and buyer characteristics. It ought to be collected without data breaks at low transaction costs and permit the aggregation to a sales index that is ideally representative for German wine producers. The requirements for the new research methodology are summarised in Table 4.

2. METHODOLOGY

To meet the research objectives a software infrastructure was designed and build that permits the automated transfer of wine producers' sales data to the researchers' databank (Figure 6). A data standard was developed and defined for a large number of product, price and buyer characteristics. Details of data fields are provided in the Appendix in Table 5. In a public tender process, five providers of ERP software for wine producers were selected as cooperating contract partners (Figure 7). Their customers cover a wide range of different business types from small wine producers (Weinbau Online and Winitas), large wine producers (Soppe and Kisling), cooperatives (Kisling and Commendo-IT) and bottlers (Soppe and Kisling).

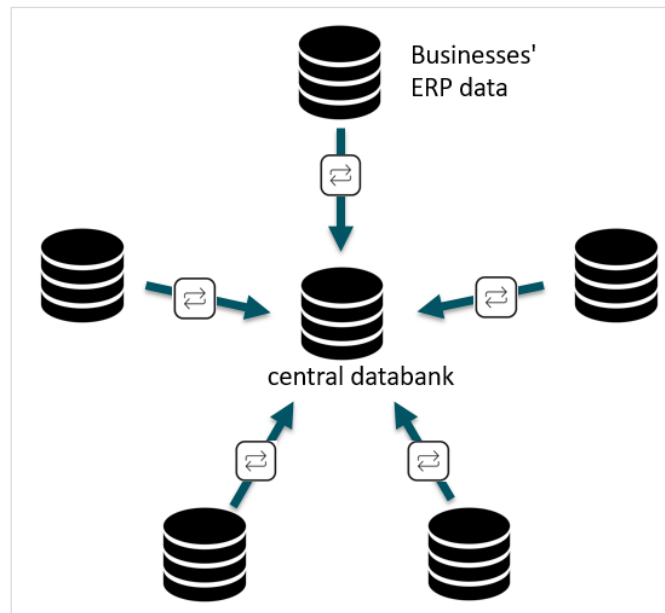


Figure 6: Concept of digital sales analysis infrastructure – individual business ERP transfer data to central databank through software interfaces



Figure 7: Operational status of Geisenheim digital sales analysis tool – five ERP software providers connected to Geisenheim databank through interfaces

The software providers implemented the interface in their software programs, ready to be installed as soon as a wine producer agrees to be connected to the infrastructure. During the duration of the EU funded project until April 2023 there are no costs of installation for wine producers, which are covered by the European research funds. The development process also entailed the design and implementation of a legal framework for data protection and security. Participating producers agree to data processing contracts and privacy agreements. Due to space limitations, the specific solutions to meet the requirements are summarised in Table 4.

Table 4 Requirements and solution for digital sales data analysis

Requirement	Solution
Reliability and validity of information	Collection of actual sales records
No data breaks – direct data transfer from databank to databank that does not require human intervention to retrieve information and enter it into reporting tool	Software interfaces from ERP-software providers to researchers' databank
Low transaction costs for connected wine producers	Automated data transfer, No connection fee, the one-off cost of installation of the interface is covered by EU research grant
High detail of information with a large variety of product and buyer characteristics	Transfer of detailed records of each sale (every single invoice position and recipient)
Aggregation of standardised information over all wine businesses	Definition of data standard for all data fields that allows aggregation of unequivocal information
Option to build an index that is representative for German wine producers	Interfaces to various ERP-providers that cover all types of wine producers. Option to weigh data according to total population of wine producers.
Fulfil data protection and data security standards	Legal and IT framework with data processing contract and privacy agreements

The recruitment of wine producers started in mid-2021 with the first ERP successfully being connected. By the end of 2021 more than 100 participating wine producers agreed to share their data. At that time the data set already contained 1.5 million data entries only covering sales from the years 2020 and 2021. In a first phase incoming data was analysed descriptively. Not all wine estates maintained their data sufficiently well within their databank. An extensive categorisation and data cleaning process was developed to avoid the inclusion of incorrect data that could bias and distort benchmark averages. Besides typos (e.g. for grape varieties or buyers) bulk wine sales also had to be identified and eliminated for the analysis of bottled wine sales (Appendix Figure 8).

3. RESULTS

A first sales data analysis was conducted in autumn 2021 covering the adjusted data of 84, mainly smaller, wine producers comparing and benchmarking the years 2020 and 2021 (first three quarters) with each other. The report contained statistics on the development of revenue and volume sales for each individual wine business (Figure 10 in the appendix) and benchmarked it with the group average. As a first step to discriminate trade channels, net prices (revenue per litre) were compared for the two broad groups of direct-to-consumer sales and trade sales in general (Figure 11 in the appendix).

The reports are programmed in the statistics software suite R and generated as producer-specific .html files. The R-suite provides a wide array of graphical options and allows for a large degree of automatization. Wine businesses can access the reports through the projects' online portal (www.geisenheim-portal.de), where they can log-on to their private password protected domain (Figure 9 in the Appendix).

With further progress of data cleaning and analysis the next report will contain information about more channel specific sales and prices. So far the data transfer was limited to data from 2020 onward, in the next stage all existing long-term data within an ERP program will be transferred into the databank. The extent of existing data varies between wine estates and can only be a few years for rather newly developed cloud-based ERP programs to more than a decade for established ERP programs.

4. DISCUSSION

The digital infrastructure opens up a new research paradigm for market research that is based on valid producer sales information covering product and buyer characteristics as well as context information. Analysing this data will answer questions from many key areas of interest to the wine sector and wine researchers. Those include among others:

- Producers' pricing and discount policies across various price channels
- Temporal and spacial trends in the development of product characteristics, e.g. grape varieties, wine types, organic and sustainable wine
- Trends and temporal and spacial differences for pricing by sales channel
- Insights into consumer characteristics for direct-to-consumer sales and consumer specific purchase patterns

The research framework is unique in that it can access past data as long as it is stored in producers' ERP software. It thereby permits the analysis of past events, such as the effect on Covid on producers' sales.

Harvesting this massive data set will also permit the utilisation of tools from big data analysis and machine learning. This new data collection infrastructure offers scope for cooperation with international researchers in the analysis of the data set.

Acknowledgements: The project is supported by the European research fund for regional development (EFRE).



EUROPÄISCHE UNION:
Investition in Ihre Zukunft
Europäischer Fonds für regionale Entwicklung

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APPENDIX

Table 5: Interface definition of data fields

	Single positions from each invoice	Remark, levels	Mandatory	Optional	Example
1	Number of units		x		6 bottles
2	Pack size	to standardise price per litre	x		0.75 Litres
3	Net price		x		3.54 €
4	VAT		x		19% (0,67€)
5	Price discount in €			x	0.22 €
6	Product category	Wine, sparkling wine, etc.	x		wine
7	Grape variety	Official variety number	x		Riesling
8	Quality level	DOCG, DOC, table wine, etc.	x		DOC
9	Quality classification	Vin du village, single site, grand cru (GG), etc.	x		none
10	Official taste style	Dry, off-dry, sweet, other		x	dry
11	Refund	Correction through negative number of bottles		x	none
	Invoice recipient				
12	Recipient group (sales channel)	Cash checkout, DtC order, food retail, specialty wine trade, gastronomy, wholesale, etc.	x		Direct to consumer
13	Channel of ordering	Online, others		x	Online
14	Dispatch route	Forwarding agent, transport company, direct delivery		x	-
15	Payment method	Only private customers (invoice, credit card, paypal, SEPA, etc.)		x	paypal
16	Gender	Only private customers		x	male
17	Age or year of birth	Only private customers		x	1971
18	ID recipient	For matching purpose, to track multiple orders and order frequency		x	25412
19	Formal agreement to online marketing	Only private customers		x	yes
20	Postal code	First three digits	x		651
21	Destination country	ISO country code, e.g. Germany, Netherlands, etc.	x		D
22	Date of invoice		x		21.07.2021
	Producer ID				
23	ID	For matching of records	x		ID 89

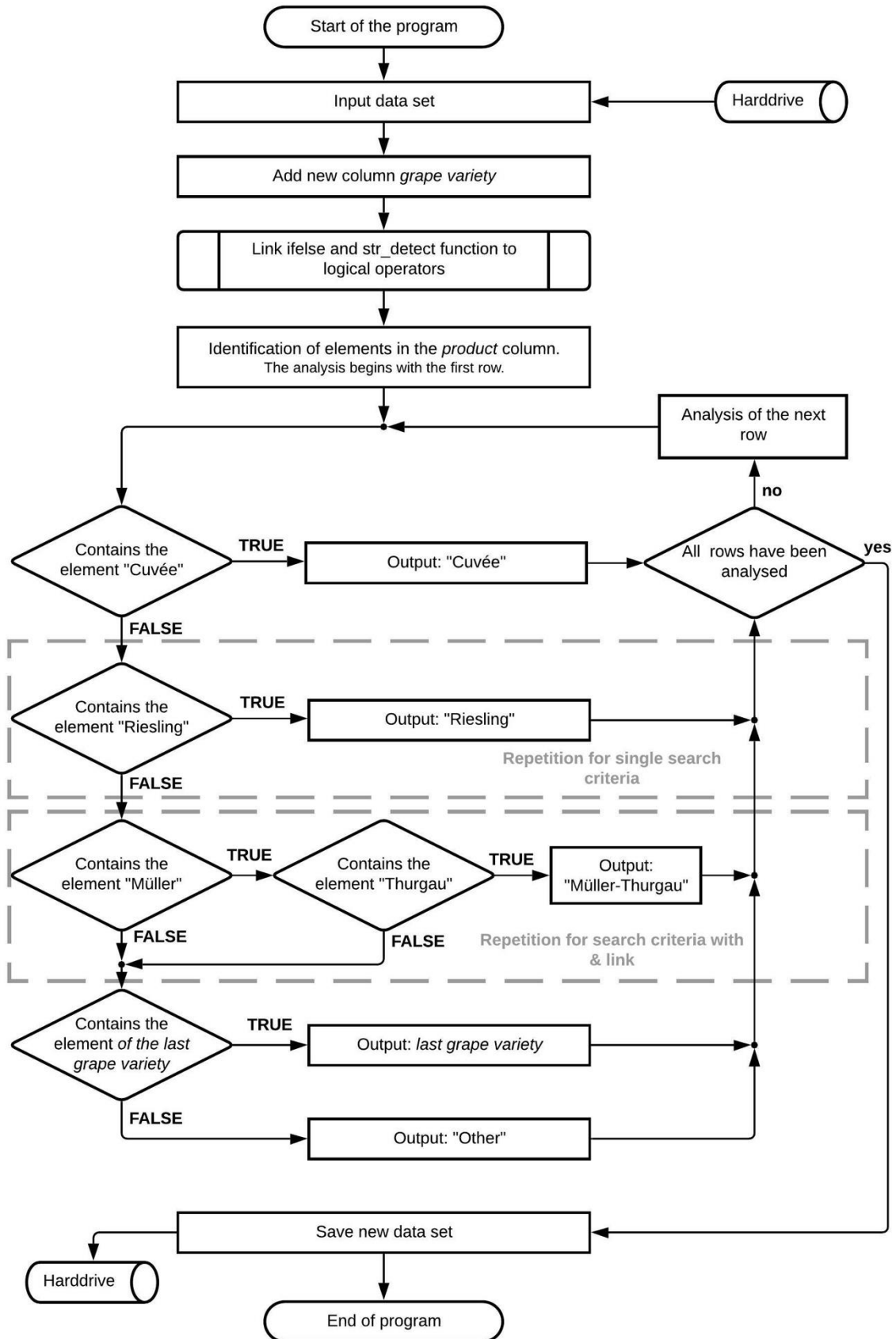


Figure 8: Example of coding flow in R for classification of grape varieties



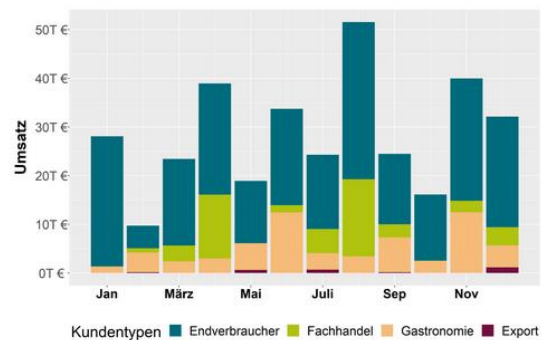
Geisenheimer Absatzanalyse

Die Geisenheimer digitale Absatzanalyse wertet die Absatzdaten von Weingütern, Kellereien und Genossenschaften aus, um den Betrieben einen Vergleich zu anderen Betrieben zu ermöglichen und der Branche zuverlässige Informationen zu geben. Die Daten sind geschützt. Niemand, außer den Teilnehmenden selbst, hat Zugang zu den eigenen Daten. Andere Betriebe sehen nur verrechnete, aggregierte Daten über viele Betriebe hinweg.

Es wird eine intuitiv verständliche, grafisch aufbereitete Analyse des eigenen Absatzes erstellt. Auch durch die Gegenüberstellung mit Vergleichsgruppen erhält man stets aktuellen Zugang zu Trends und Entwicklungen auf dem deutschen Weinmarkt.

Der Hauptfokus der Auswertung liegt auf folgenden Gebieten:

- Absatzentwicklung, Absatzkanäle
- Preissetzung und Entwicklung
- Neukundengewinnung, Wiederkauftrate, Durchschnittsbö
- Entwicklung der Rebsorten



Wie funktioniert es?

Was kostet es?

Musterauswertung ansehen

Details

Datenschutz

Figure 9: Public Geisenheim Portal (www.geisenheim-portal.de) with brief information about sales analysis tool and Login to private area (top-right)

1 Gesamtübersicht

2 Umsatz und Absatz eigener Betrieb

3 Umsatz mit Vergleichsgruppe

4 Preisentwicklung

2 Umsatz und Absatz eigener Betrieb

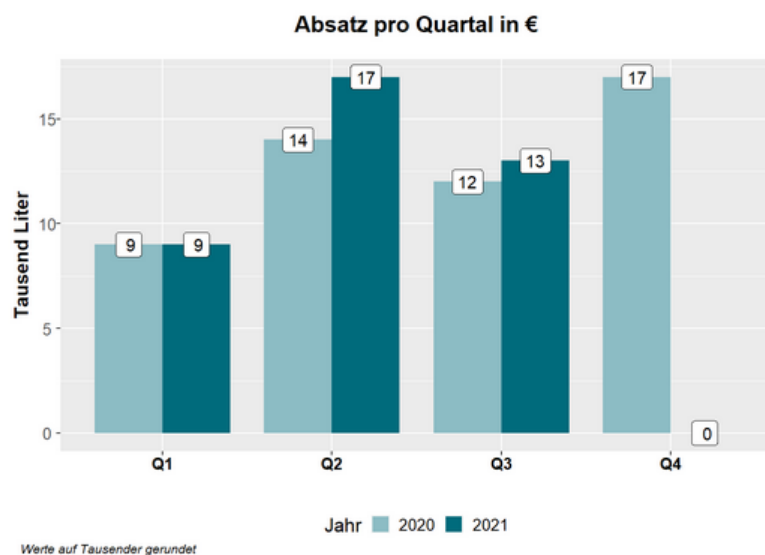
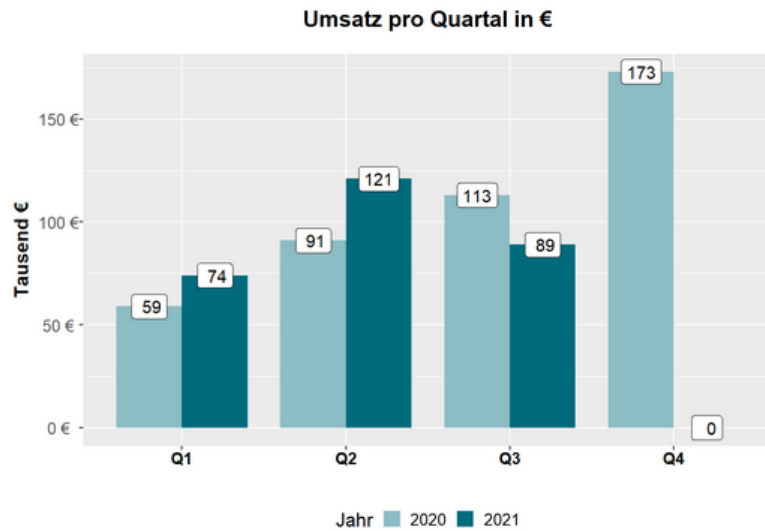
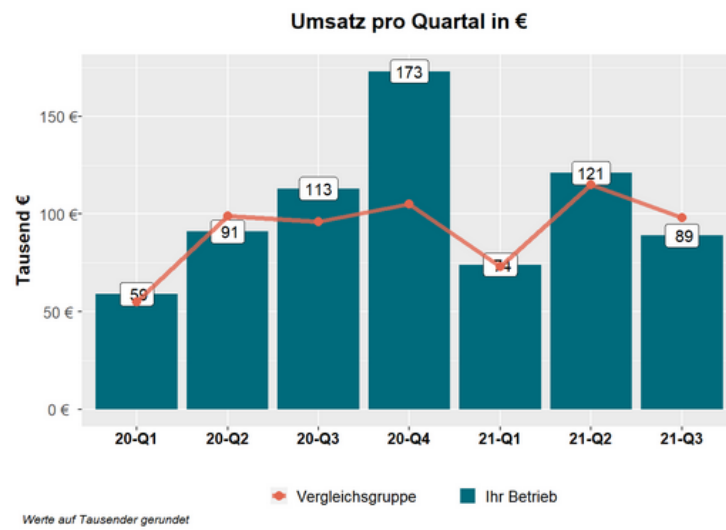


Figure 10: Example of sales analysis statement for 3rd quarter 2021
(revenue and sales volume comparison 2020 and 2021)

3 Umsatz mit Vergleichsgruppe



4 Preisentwicklung

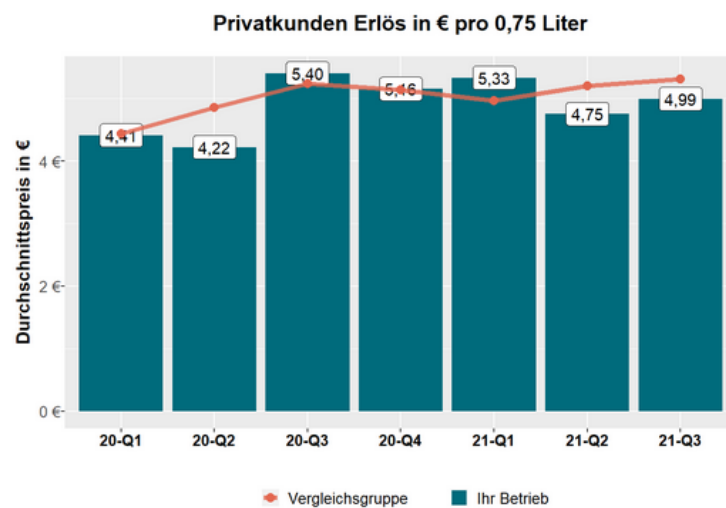


Figure 11: Example of sales analysis statement for 3rd quarter 2021
(benchmarking of business with sector average for quarterly revenue and average prices per bottle)

Development of an Online Dashboard of Economic Sustainability based on Producers' Expectations

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Abstract

◦*Purpose* – The study aimed at improving an existing benchmarking tool for economic sustainability to develop and advance it into an online dashboard support system.

◦*Design/methodology/approach* – Using a qualitative approach, 24 in-depth interviews were conducted with long-term users of the existing benchmarking tool to elicit their feedback and expectations for an optimal tool. Based on the wine producers' feedback an online benchmarking tool was designed and implemented.

◦*Findings* – Wine producers attached a great importance to benchmarking their economic performance. Besides pricing information, key performance indicators about the cost of production and investments in particular were deemed relevant. Producers requested an overall summary assessment of the most important KPI of their business, an intuitive visual presentation and long-term time span. Graphical presentations should ideally also be supported by short verbal comments. The suggestions were taken into consideration during the development of the online dashboard, which is the result of the research presented here.

◦*Practical implications* – The online dashboard developed will be an important tool for wine estates to assess and benchmark their current economic performance as a key part of their overall sustainability.

Key words: economic sustainability, usability, benchmarking, key performance indicators

1. INTRODUCTION AND LITERATURE REVIEW

Sustainability is an increasingly important topic for a variety of industries, including the wine industry. As a result, composing systems to make sustainability more tangible have become drivers in the recent development of new sustainability performance measurement tools.

In previous literature, sustainability has been concluded to comprehend three pillars of social, economic, and environmental sustainability, also known as the “triple bottom line” (Golicic *et al.*, 2016). These three categories are intertwined and must all be met, for a business to truly be sustainable in the long term (Elkington, 2002; Joyce and Paquin, 2016). As a result, a business that considers environmental and social interests, but cannot cover its cost or adapt to its economic surroundings will not be capable of surviving (Loose *et al.*, 2020). No amount of excellent social and environmental performance will prolong the life of a company, if it is economically unsustainable (Doane and Macgillivray, 2001).

In general, economic sustainability can be defined as a future oriented concept, which aims at long-term economic survival, adaption to change and healthy economic growth (Doane and

Macgillivray, 2001). As measuring sustainability performance becomes an increasingly emerging issue, more scientific knowledge is needed in order to make it less subjective (Sartori and Campos, 2016). In order to assist decision making and improve sustainability performance of companies, the development of sustainable KPI's (Key-Performance-Indicators) is a valuable source of information and a step toward making the measurement of sustainability less subjective and more data driven (Adams and Frost, 2008; Pannell and Glenn, 2000).

1.1 Management information systems and decision support tools

Management information systems (MIS) and decision support systems (DSS) provide this opportunity. MIS provide information related to internal operations and external intelligence, with the goal of supporting the planning, control and operation functions of an organization (Watson, 1987). Hereby, software is used to create data-based content in form of periodic reports, displaying various aspects of a firms operations (Asemi *et al.*, 2011). DSS complement MIS by generating supportive results based on mathematical models to aid managers at any organizational level in making decisions (McLeod and Schell, 2007). DSS can result in significantly greater decision-making performance, although a learning period is required for users to become familiar with the system (Sharda *et al.*, 1988). As a result, while designing the user interface of such a DSS, the ability of the human operator to use the final tool must be taken into account during the development process (Li *et al.*, 2001).

1.2 Economic sustainability of the wine sector

When focussing on the wine industry, tools to support wineries in becoming more economically sustainable are becoming increasingly sought-after. The economic sustainability of most wine estates in was found to be insufficient in many countries, unable to sufficiently reimburse their family labour (Delord *et al.*, 2015); and not providing sufficient return on equity (Loose *et al.*, 2020). On the other hand however, Broccardo and Zicari (2020) found that Italian family owned wineries involved in sustainability operations showed more favourable economic indicators, than businesses not involved in sustainability programs. In this regard, previous literature underlines the importance of company management being on board with sustainable goals and that management tools (e.g. web-platforms) to assess sustainability performance are essential (Corbo *et al.*, 2014).

1.3 Existing benchmarking system – Geisenheim business analysis

The Geisenheim University business analysis has provided German wine businesses feedback on general business data as well as key attributes in assessing business performance and functions as a MIS. It comprehends the analyses of six key dimensions (input factors, productivity and efficiency, profit, return on capital invested, liquidity and stability, (Loose *et al.*, 2020)). It is thereby closely aligned with the criteria of financial health (stability, profitability, liquidity, solvency) that is suggested by Labuschagne *et al.* (2005) to be the most important criteria to operationalise economic sustainability.

By evaluating business data of hundreds of German wineries, PDF reports with graphs encompassing a variety of KPIs are calculated in the Geisenheim business analysis through a centralised databank and subsequently distributed back to the wineries. Appendix 2 provides some examples of the PDF output. For a more detailed definition of the KPIs see Wetzler *et al.* (2021).

1.4 Research objective – decision support system for economic sustainability

Internationally, multiple wine industry institutions have developed certification programs of sustainability for wineries ((CSWA), 2021; (SWNZ), 2021; (Nachhaltig Austria), 2019; (SWA), 2021). While some offer an online tool for evaluating sustainability performance factors, predominantly the main focus remains on the ecological and social pillars of sustainability. To our best knowledge there is no online dashboard tool available for in-depth economic sustainability in the wine sector. This paper attempts to evaluate the extent of the current Geisenheim business analysis helpfulness for participating wineries, as well as required additions to transform it into a more effective DSS web-based tool for economic sustainability.

2. METHODOLOGY

24 qualitative in-depth interviews were conducted with winery owners across a span of four months from March to July 2020. Wineries were picked at random from multiple German wine growing regions, with the only prerequisite being the participation in the Hochschule Geisenheim business analysis for three years or more. An interview questionnaire including 13 open and supported questions was developed, covering subjects of:

- 1) The current impression and helpfulness of the reports
- 2) Desired content-related additions or requests for more in-depth information
- 3) Structural changes and additional support tools for increased usability and intuitiveness

The interviews were conducted in person until no longer possible due to COVID-19 lockdown regulations, resulting in the remaining interviews being conducted by phone. After their transcription, the interviews were evaluated, followed by the implementation of key takeaways in the development process of the new web-tool for evaluating economic sustainability.

3. RESULTS

3.1 User demands for a Management Information System

3.1.1 Current impression and helpfulness of the reports for wineries

All respondents were satisfied with the different graphs and visualizations used to display the performance indicators with one exemplary participant describing the analysis as “*clear, concise, and good, especially the comparison with average values as well as averages of the best 25% of the reference group.*”.

This approach persisted when respondents were asked about the use of specific KPIs. Generally, the comparison and benchmarking of KPIs with reference groups was considered more important than focussing on a specific KPI. Nonetheless, the most important KPIs named by participants were cost per litre, profit per litre and labour intensity (working hours required per hectare of vineyard area). “*Principally, the cost-side is always relevant. In terms of turnover [per litre/ pricing] I have the feeling we have it under control or, that we can flexibly increase it. But in the end, controlling costs is important for everything else.*” Cost per litre as well as labour intensity were seen as highly relevant KPIs to monitor.

The total operational result after the deduction of an imputed family wage, was only considered to be important by two winery owners: “*As a family worker, you often don’t take into account every hour of work you put in [...]*” and “*[...] in our industry, this is a problem.*” KPIs of

capital information, such as return on equity, equity development, or debt ratio also received little attention and were only mentioned by single, isolated respondents.

While the majority (14) of all respondents claimed to have no issues understanding all KPIs, several were named as redundant or confusing: “[...] *What I currently take issue with, is the visual presentation of liquidity. [...] The annotations of the cash-flow and financing-cash-flow graphs are unfortunate, you always have to turn it to understand, what is trying to be conveyed?*”. A similar impression toward liquidity was shared by three other respondents.

3.1.2 Desired content-related additions or requests for more in-depth information

Decisional support for investments in general and, more specifically, construction investments was the most sought-after additional information by participants. Many mentioned currently relying on their “*gut feeling*” when it comes to investments or being forced to invest by sudden circumstances: “*When something breaks, I have no choice but to reinvest, I can’t preconceive if it is currently a good idea from an economic point of view or not.*”

Coincidentally, a KPI providing information on the degree of obsolescence was often sought-for by respondents seeking more in-depth information on investments: “*Others are in a better position and haven’t had to invest from scratch with everything being obsolete when taking over a business. [...] In our position we constantly doubt and question ourselves: ‘How do others do it? Why aren’t we able to?’*”.

Another subject requested by multiple respondents was a more in-depth look into the structure of the profit and loss statement and cost structures with main questions being ‘*Where do I generate the highest profits?*’ and ‘*Where are my highest expenses?*’. Dividing up costs and calculating expenses for individual products proved to be important needs respondents would like to have more comprehensively explored in the future.

3.1.3 Structural changes and additional support tools for increased usability and intuitiveness

Unprompted, isolated suggestions for improvement included the preference for an online tool as opposed to the PDF reports as well as expanding of the current graphs to show data of up to ten preceding years as opposed to five.

Almost all participants would prefer comments to be added to all graphs, with short individual feedback on the developments depicted: “*It would be a great help to receive one or two sentences commenting on a graph.*”, “*No long text, just a brief assessment.*”.

Additional factors to benchmark oneself against other wineries were requested, for example when providing more information on investments: “[...] *If there was an opportunity to compare how much wineries of a similar category invest, that would be great, but here it would also be all the more important, to be able to divide up the reference groups by size.*” Further desired benchmarking segments included the factors by region or certification (e.g. organic).

Furthermore, a support tool was desired to provide a more in-depth grading of KPIs using critical values/thresholds: “*A brief explanation of ideal values for example like ‘This is the ideal span for long-term success’ would be great*”. Ideally, this would also result in suggestions for which areas of the business require controlling: “[...] *giving recommendations, maybe in which areas there could be a need to act [...], wouldn’t be bad at all*”.

3.2 Implementation of requirements in online dashboard

Due to space limitations of the conference paper the key requirements identified are listed in Table 1 jointly with the steps taken for implementing them in the online dashboard. Visual examples are provided in Appendix 1.

Table 6: Overview of producer requirements and implementation in the online dashboard

	<i>Requirement</i>	<i>Implementation</i>	<i>Example</i>
1	Make the structure of the report easier to understand	Flexible and guided navigation through a bar with visual icons per chapter	Figure 1
2	Identify most important KPIs and their status	Summary of the most relevant KPIs based on their impact on the operational result incl. family wages and their current status.	Figure 2
3	Ideal values of KPIs	A traffic light system, that intuitively assesses good, average, and critical values, based on cut-off values provided in help text.	Figure 2 & Figure 3
4	Additional reference groups for benchmarking	The option of choosing and switching between different reference groups for relevant KPIs.	Figure 3
5	Comment on graphs	Automated comments stating current situation, average development over 5 years and relative difference to average businesses.	Figure 3
6	Visualise long term trends	Linear trend line included over 5 and 10 years.	Figure 3
7	Extend time span	Users can switch between a time span of 5 and 10 years of reference data.	Figure 3
8	Improve annotations and ease of understanding	Integrated help texts displayed via hovering over designated help icons distributed around and within the graphs.	Figure 4
9	More details on cost structures	Detailed visual analysis of expenses. Currently no more details possible due to data structure.	Currently unavailable
10	Include benchmark on investments and degree of obsolescence	New KPI for degree of investments included in the user story. Degree of obsolescence currently still a work in progress, expected completion: 2022.	Figure 1

4. DISCUSSION AND OUTLOOK

Economic sustainability is an important part of the overall sustainability of a wine business. It is the crucial dimension for a wine estates' long term survival (Loose *et al.*, 2020). Previous studies have shown an increasing urgency of wineries needing to align themselves more economically sustainably (Loose *et al.*, 2020; Delord *et al.*, 2015). In order to provide companies with more valuable information in terms of KPIs, MSI and DSS can help wine businesses asses and improve economic sustainability (Adams and Frost, 2008; Asemi *et al.*, 2011; Corbo *et al.*, 2014). This importance of KPIs was confirmed and strengthened through feedback by participating wineries of the Geisenheim business analysis. Based on qualitative research, this

study advanced and enhanced a currently static PDF-based MSI for wineries into a flexible online support tool with automated comments. The development process and design of said tools interface was based on the needs and abilities of participating wineries, an essential step as pointed out by Li *et al.* (2001). To the authors best knowledge, this is the only currently available online tool assessing economic sustainability to such an in-depth extent within the wine sector. The tool has now been fully developed and is entering the testing stage, where further feedback by the users will be taken into account for further refinement.

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APPENDIX 1 – EXAMPLES OF THE NEW ONLINE DASHBOARD TO ASSESS ECONOMIC SUSTAINABILITY

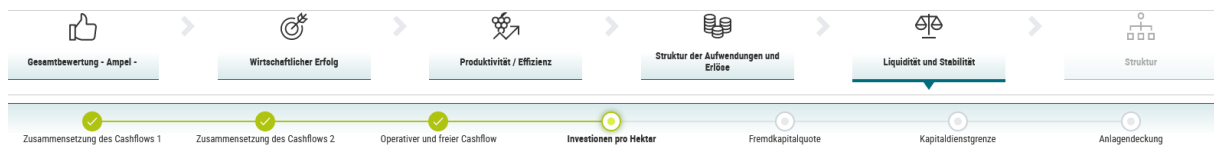


Figure 12: Example of navigation bar with fitting icons for each chapter of the user story and the opportunity of switching between benchmarks

Gesamtbewertung ?	
Betriebsergebnis	✓ ! ✗
Umsatz pro Hektar	✓ ! ✗
Arbeitszeit pro ha	✓ ! ✗
Umsatz pro Arbeitskraft	✓ ! ✗
Gewinn pro Liter	✓ ! ✗
Operativer Cash-Flow pro Hektar	✓ ! ✗
Freier Cashflow pro Hektar	✓ ! ✗
➤ Fortfahren	

Figure 13: Summary slide of the most important KPIs in terms of economic sustainability and their representative status based on cut-offs displayed in an intuitive traffic light system



Figure 14: Exemplary line chart for labour intensity with new requirements implemented

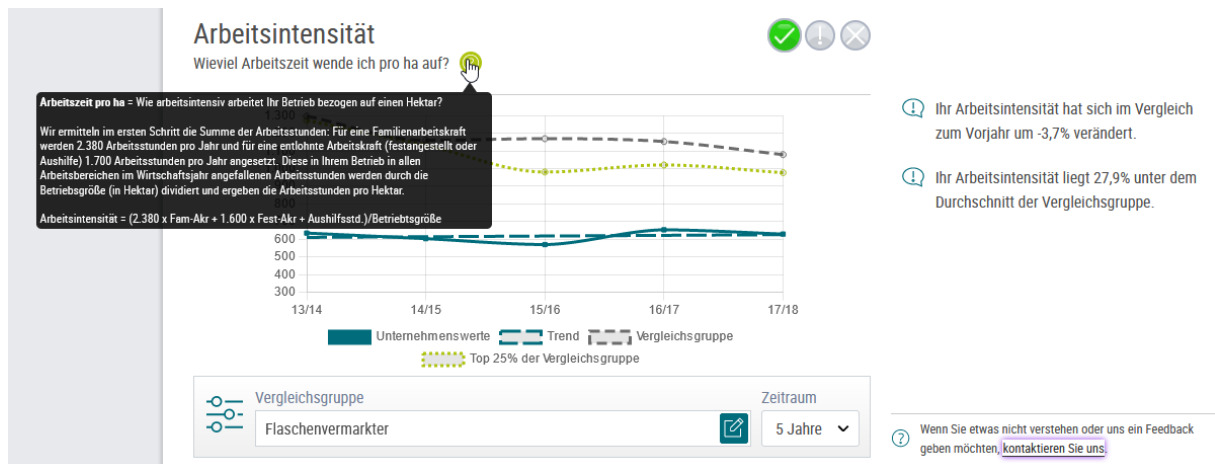


Figure 15: Example of integrated help text displayed by hovering over the help icon

APPENDIX 2 – EXAMPLES FROM EXISTING BENCHMARKING REPORT (GEISENHEIM BUSINESS ANALYSIS)

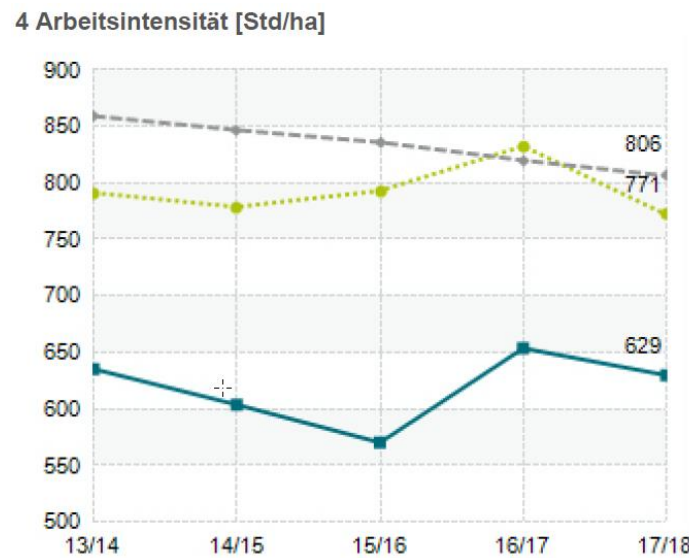


Figure 16: Exemplary line chart for labour intensity (old benchmarking report)

11 Zusammensetzung des Betriebsergebnisses GJ 17/18

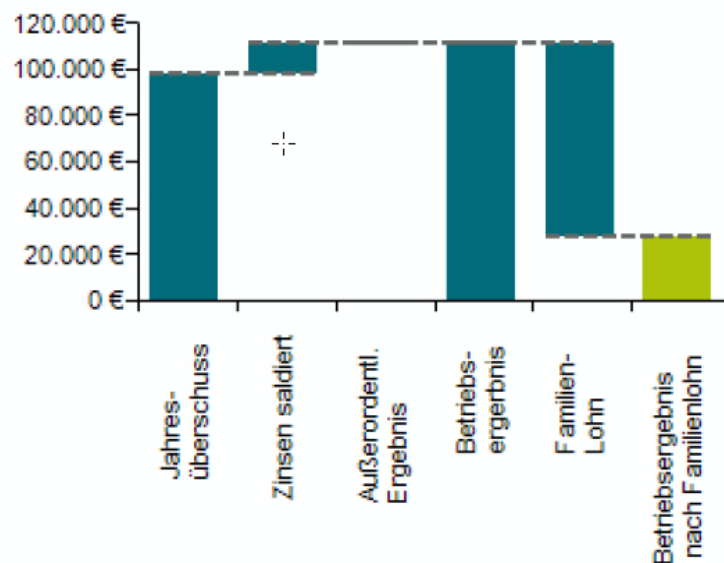


Figure 17: Exemplary bar chart for operational result inc. family wages (old benchmarking report)

Dissonant Opinions and the Home Bias: Consumer Response to Crowd Sourced Reviews for Wine

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Abstract

◦*Purpose* – In recent years we have witnessed a substantial increase in the volume of peer reviews for many consumer products. We are particularly interested in the role of peer reviews for wine given the proliferation of such reviews in recent years. These reviews are expected to serve as a non-trivial social influence that can affect consumer behavior. We build on earlier work examining consumers' beliefs and evaluations after exposure to critics review and to contradictory peer reviews to examine the own- and cross- effects of peer reviews on consumers' willing to pay.

◦*Design/methodology/approach* – We developed a survey and a lab experiment with different rounds of information to collect data on consumer demand for three wines. The survey and the experiment both include sparkling wines produced in France (Champagne), Spain (Cava), and New York (Finger Lakes). The labels for the wines are not revealed to subjects in either the survey or the experiment. These three wines received the same score from the Wine Spectator (88/100). In both our survey and our experiment, we present a range of peer review scores based on an average of recently published Vivino ratings. This generates three average peer review scores for each wine, and in each treatment two of the wines are presented with an average peer review score of 4.4/5 (equivalent to 88/100 Wine Spectator score); the third wine is assigned with an average peer review score of either 3.8/5 (lower than the Wine Spectator score), 4.4/5 (equivalent to the Wine Spectator score), or 4.8/5 (higher than the Wine Spectator score). This arrangement leaves us with nine possible expert-peer scores across the three wines.

We then estimate a series of regressions and examine the (own- and cross-) effects of peer reviews on US consumers' willing to pay for the three sparkling wine.

◦Findings – Our main results indicate the presence of a negativity bias associated with low peer reviews in two ways. First negative peer scores have statistically significant own-effects for all wines whereas a positive peer score only had a significant own-effect for the New York wine. Second, negative peer scores have important spillover effects; low peer reviews led to a statistically significant increase in the WTP for the other wines in all cases but one. We do not find evidence of a local bias driving the lone positive own-effect for the New York wine, but we do find support that it is associated with subjects that have greater familiarity with wine in general and those that exhibit a higher share of total wine consumption.

◦Practical implications – Our results have implications for the dissemination of information in a retail context.

Key words: Negativity bias, spillover effects, Sparkling wine, Consumer demand, Peer reviews.

Communicating Terroir in a Social Media Context: An Experiment Among Wine Consumers in Italy

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Abstract

◦*Purpose* – The purpose of this study is to explore wine consumer perceptions of terroir in the social media context and how wineries could effectively communicate terroir wines to social media users.

◦*Design/methodology/approach* – The Analytic Hierarchy Process (AHP) approach was applied to elicit consumer preferences for alternative fictive Instagram posts including visual and textual content about terroir. A survey via questionnaire was online administered by a sample of Italian wine consumers.

◦*Findings* – Results showed that image posts were largely preferred to text posts. Among image posts, respondents preferred illustrations of the production environment rather than pictures of the wine bottle. Among text posts, posts proposing a ‘terroir association’ received higher priority than those explaining a ‘terroir concept’. Posts representing the grape variety, a natural label and the landscape obtained the three highest importance weights.

◦*Practical implications* – The study revealed that the AHP could be a useful approach to eliciting and evaluating wine consumer preferences for digital communication. It contributed to understanding how wineries could effectively convey the different meanings of wine terroir via social media.

Key words: terroir, social media, communication, Analytical Hierarchical Process, Instagram, wine consumer, Italy

Wine Tourism Goes Virtual: A Latent-Class Model Applied to Wine Tourists' Preferences for Virtual Wine Tastings

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Key words: Virtual Wine Tourism; consumer preference; demand segmentation; choice experiment; wine involvement

EXTENDED ABSTRACT

The Covid-19 pandemic has put the wine tourism sector to a stern test, raising the need to develop new strategies to adapt to the changes imposed, such as mobility restrictions and social distancing (Gastaldello et al., 2021). The phenomenon of virtual wine tastings (VWT) represents one of these strategies, which is increasingly adopted by wine consortia and organisations (e.g., Consorzio Conegliano Valdobbiadene Prosecco, German Wine Institute) in many European countries to promote wine tourism destinations. The phenomenon is gaining attention also among academics, who recently explored consumers perception of virtual wine tastings through the 4Es experience economy framework (Paluch and Wittkop, 2021), the effect of online embodiment during virtual wine tastings on purchase decisions (Wen and Leung, 2021), and the impact of context and of the tasting environment during in-presence and VR-simulated wine tastings (Torrico et al., 2021). Particularly, virtual reality (VR) has been identified as a strategic tool for developing multisensory wine tourism offers (Martins et al.,

2017). Recently, Szolnoki et al. (2021) conducted a supply analysis for online wine tastings (OWTs) involving over 1000 wineries in 40 different countries. Results identify online wine tastings as a valuable and profitable business tool that attracts new customers and keeps existing ones loyal. Indeed, the authors highlight that OWTs are here to stay. The diffusion of this tool during Covid is also prompted by the behavioural rethinking pushed by the pandemic, which brought consumers to get more familiar with online platforms (Alaimo, Fiore and Galati, 2020). Nevertheless, while the effort on the supply side is clear, little is still known on the demand side. Notably, there is a lack of knowledge of consumer preferences and characteristics regarding this innovative offer. Such information is paramount for wineries to design VWT better and effectively target the market.

The present study aims at filling this gap through a choice experiment (CE) to analyse consumers' preferences and willingness to pay for specific attributes of VWT. The attributes considered are the winery size (1 – Small; 2 – Big), winery distance (1 – In my region; 2 – In another Italian region; 3 – In a foreign country), the popularity of the wine area in which the winery is located (1 – Emerging; 2 – Popular), the guide of the tasting (1 – Winemaker; 2 – Wine expert), discount on future purchases from the winery (0 – No; 1 – Yes), and the price (1 – 45€; 2 – 60€; 3 – 75€; 4 – 90€). Given the topic's novelty, the attributes and their levels are defined based on VWT experiences currently sold on the Italian market.

To maximise efficiency, a D-optimal experimental design is implemented with 24 choice sets, divided into four blocks (relative D-efficiency: 51%). The D-optimal design is obtained using priors from a pilot study involving 30 Italian wine tourists. To ensure reliable results for the CE, each block is presented to the same number of respondents. The CE is part of a structured questionnaire including psychographic information, wine consumption, wine purchase and wine tourism habits, and socio-demographics. All scales adopted are measured through Likert-type scales adapted from the literature. Additionally, we collect information about the motivation behind the choice to participate in a VWT experience.

The final sample consists of 500 wine tourists (125 for each block) involved in data collection through an online research agency. The sample is representative of the Italian population in terms of age, gender, and geographical region.

Following the CE, a latent class model (LC; Boxall and Adamowicz, 2022) will be performed to provide information on demand segmentation. Besides socio-demographics, segments will be characterised through psychographic characteristics and wine consumption habits. For instance, attitude towards technology adoption (as technology is fundamental for VWT

experiences), wine involvement, and risk attitude (linked to the fear of Covid infection) will be considered to characterise the respondents in each group.

As data collection is ongoing, the expected results for the CE are discussed below according to the results from the pilot study. Specifically, we expect the popularity of the wine region, the guide (being a wine expert) and the presence of a discount on future purchases to have a positive impact on choices. Diversely, the distance from the respondent's area of residence, the price, and the winery's size are likely to impact consumers' choices negatively. Precisely, the latter effect is expected as authenticity is an important motivation when engaging with wine tourism experiences (Quadri-Felitti and Fiore, 2016; Bruwer and Rueger-Muck, 2018), and it is easily found in small, family-run businesses.

Information collected will represent an essential contribution to the development of VWT, provided their increasingly recognised marketing potential in allowing to reach a wider audience of customers while overcoming geographical, physical, and economic barriers.

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BUSINESS MODELS & ENTREPRENEURSHIP

Winery Business Models: A Global Typology

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Abstract

◦*Purpose* – One of the reasons that wine business is a complex field of study (Orth, et al., 2007) is that the activities of wineries may span one or more economic sectors, i.e., primary (e.g., grape growing), secondary (e.g., wine making), and tertiary (e.g., retail services or wine tourism). One of the outcomes of this complexity is that many of the focal objects in the study of the activities of wine businesses and wineries are located across disciplinary fields such as agriculture, economics, tourism, business, etc. It has been argued that this lack of a core disciplinary home has meant that research into wineries-as-businesses, especially in comparison to other forms of business, is both fragmentary and lacking. That is, the consolidated study of the range of business models that wineries may adopt is absent from any of the literature dealing with wine business (Weatherbee and Sears, 2019).

Despite a recent call urging for the study of wine business models (Lockshin & Corsi, 2020), work in this area remains very recent and still limited (see Dressler & Paunovic, 2020; Ferrer & Villanueva, 2020; Ouvrard, Jasimuddin, & Spiga, 2020; Rosinus, 2021). Given the complexity and diversity of the forms of wineries – at the fundamental level of business organizations and their value propositions – it begs the question of whether we have fully

captured the impact and influence of the winery on the other elements we have more strongly studied in wine business research (e.g., whether at the manufacturing, product or service levels)?

The aim of this work is to lay the requisite groundwork for the development of a typology that captures the diversity of winery business models on a global basis. Our research is designed to measure as complete a range of characteristics, features, and activities of wineries as is possible to capture the full range of differences amongst wineries. This will provide the basis for an empirically generated typology of wine business models to inform future research

◦Design/methodology/approach – Given the complex and heterogeneous nature of wine business in general and of wineries in particular, empirical understanding of the nature of differences amongst wine business requires a multi-dimensional approach. Though the definition of business model remains contested in both the entrepreneurship and strategy literatures there are common elements. As Haaker et al (2017) explain, the purpose of business models is to describe the manner in which businesses structure and operate in order to engage with customers. That is, how they generate, exchange, and capture value. In essence, a business model is a conceptual tool that articulates the way(s) an organization delivers value to its customers and generates revenue. Our review of the wine business and business model literatures identified a series of dimensions that should be considered in the development of a parsimonious and effective winery typology.

An initial data collection instrument of 35 questions allowing for the capture of 172 different features, characteristics, and activities of wineries was generated from the literature and researcher expertise. This instrument was then used to collect data on wineries in five separate countries: and in multiple wine regions within each. These included Canada, the United States, New Zealand, France, and Germany. Data was collected from October through December 2021; the total data set includes over 250 wineries.

◦Findings – Data collection is now being finalized and analysis will commence early in 2022 with results ready for presentation at AWBR 2022.

Key words: wine business, business models, winery structure, winery organization

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Business Models of Wine Tourism in the Northern Rhone Valley

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Abstract

The main aim of this research was to testify the wine tourism' business models of Tourism Office (TO) area through the means of attributes derived from both, the public and business management. From the practical point of view this theoretical "match" was needed mainly because of wine tourism communication and marketing is performed on two levels simultaneously: by TO and wine producers. To identify both of them the ethnographical methodology was used, including the methods of participating observation (applied by a mysterious tourist method), study tours (to explore the study field), expert analysis (based on knowledge exchange with of Tourism Office Managers) and official interviews (with Managers of small and large wine producers from the areas). As it turned out two of three analysed TO areas (Vienne Condrieu and Rhône Crussol) represent the wine tourism model with more active role of public structures. Slightly different phenomenon was identified in the approach of the TO of Ardèche-Hermitage where wine tourism organization has been developed as the bottom-up indicative driven by the large wine producers from the area (like the M. Chapoutier, Cave du Tain and recently also Delas Frères). The area's wine tourism business model was designed specially to deliver to wine tourism managers the practical conceptualization of three-level wine tourism collaboration (between TO and wineries) and communication (marketing of wine tourism performed by TO and wineries themselves). The main recommendation concerns co-working with large and small wine producers. While the previous ones are more helpful to increase visibility & image of TO, the latter are capable to offer alternative wine experience based on the direct contact with a wine-maker. Nevertheless, both of them are complementary to promote TO area and by so contribute to the collective business model of wine tourism.

Key words: co-shared services in wine tourism, wine tourism marketing, wine service networks, collective business models, the Northern Rhone area destinations

Business Models of Italian Organic Wineries: A Multiple Case Analysis

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1. BACKGROUND AND OBJECTIVES

According to the latest data, the organic sector is growing globally. In 2019, about 73 million hectares of organic agricultural land were registered (FiBL & IFOAM, 2021). Consumption of organic food and wine has increased steadily and will continue especially as a result of customers' renewed attention to sustainability and safety in response to the pandemic (Chenarides et al., 2021).

Competitive pressure is increasing because of :1) entries in the organic sector by new companies and the conversion of existing ones; 2) the competition by “conventional” products, perceived as more healthier than in the past. Organic firms are thus required to devise effective strategies to create value for consumers.

Our paper tackles the research question of how organic wine producers might improve their business models (BM). In particular, we aim at inductively identify different configurations of BM viable for organic wineries.

2. LITERATURE REVIEW

The concept of BM (Zott et al., 2011; Massa *et al.*, 2017) are crucial to frame these dynamics. It is powerful in explaining performances in industries wherein radical product innovation is seldom possible and key in differentiating firms. It rather points to the fact that firms gain differential positions thanks to their ability to orchestrate ecosystems of actors and resources around a well-defined value proposition. In essence, it focuses organizational and strategic analyses on three logics (Shafer et al., 2005). How a firm: a. *creates* value for specific segments; b. *orchestrates* an ecosystem of suppliers, distributors, partners; c. can *capture* value to be profitable.

Research about BM in the organic sector focused on wine industry has been emerging only recently. Some authors consider the organic wine as example of sustainability practices, since organic production aims to obtain wines without additives (Cobelli et al. 2021), some others don't treat the organic (or biodynamic) as a synonym of sustainable viticulture (Flores 2018). These different perspectives make the analysis more complex.: existing studies on BM in the winery sector mainly refer to sustainability in general and not to organic production system. Rosinus (2021) found out that “just a few winemakers take sustainability issues into consideration, and produce organic wine”, Dressler (2021) referring to “farms with sustainability-oriented and organic products”, highlighted that they are able to set higher prices and possibly achieve higher profit. Broccardo and Zicari (2020) found out that even if some wineries have implemented sustainability-related process, sustainability is not yet at the center of their BM. Dressler and Paunovic (2021) results did not confirm the positive effect of an extension in sustainability on core winery business size. We aim at contributing to this literature by illustrating the results of a multiple case study.

3. DATA AND METHODS

The wine sector in Italy is mainly composed of SMEs. Our preliminary study involved 3 of them, located in the Veneto Region. Two produces organic wine only and one both organic and conventional wine. The relevant information to pre-construct timelines and thick descriptions of firms' strategies was collected through an extensive desk research on multiple sources. Then, each firm was interviewed. Interviews lasted approximately 2 hours on average, were recorded and transcribed; desk data were systematized in written documents that the authors coded according to Gioia et al. (2013) and Business Model Canvas (Osterwalder and Pigneur 2010).

4. PRELIMINARY FINDINGS

The study of each dimension for all the interviewed companies was key to identify the structure of organic BMs.

The first factor is the motivation of producing organic wine. Strong personal belief in the values of sustainability was the reason why the “total organic” firms entered in this sector. The development of organic BMs was iterative and characterized by several experiments. Profitability was not key in driving the decisions. On the opposite, a more conscious assessments of potential revenues and costs is the key drivers for the conventional firm.

A second factor is the role of retailers, whose collaboration is important to make consumers aware of the main values of the wine. The organic label is not enough to catch the consumers' attention. Trade marketing activities to leverage the collaboration of physical retailers seems necessary to improve wines' sales. The use of communication to frame their products as innovative was a relevant factor in helping firms to gain the collaboration of retailers.

One last topic is how networks are managed and how they enable different BM. Informal channels are more adopted than formal ones, even if formal assessments and audits exist. At the same time, the limited scalability of trust-based networks might represent an obstacle to the growth of the company.

5. CONCLUSIONS

The objective of research is to illustrate the interdependencies among different BMs building blocks. The qualitative design will allow us to provide with research propositions, to be validated through further cases, that hypothesize the relationship among organizational and contextual variables as antecedents of the different BMs typologies.

References available upon request

The Business Models of French Wines, Between Continuity and Adaptation: The Example of Champagne Wines

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Abstract

◦*Purpose* – Our study emphasises the evolution of the French wine industry from the example of the Champagne vineyard. As, the adaptations within the sector are based on a progressive evolution of individual exploitations, we base our analysis on the business model framework methodology (Osterwalder and Pigneur et al., 2010), that describes in a systematic way the processes of value creation and capture. We combine this with the strategy tripod model (Peng et al., 2009) to understand the extent to which pressures from the institutional context, accessible resources and competitive positioning can influence individual business models (BM).

◦*Design/methodology/approach* – We build on the multiple case study method (Yin, 2009). All organisations' business models were analysed by applying the business model canvas (BMC). A site visit was made to each wine company, aimed at analysing its BMC. The visits were spread over several one-week periods between 2015 and 2019. Primary data obtained in our visits were supplemented by secondary data from specialist newspaper articles and companies' websites. Historical data pertaining to wine regions were obtained from the extant literature on the topic

◦*Findings* – Our hypothesis is that the institutional context forces estates to adopt common positioning, resources, and ultimately an archetypal BM, while leaving them some capacity for variation. It contributes to raising barriers to entry, freezing the hierarchy of domains, favouring the most prestigious ones to the detriment of others. We found that some producers may, however, decide to bypass this institutional framework in order to mobilise specific resources, adopt a differentiated competitive positioning and, therefore, an innovative BM. Yet, our analysis does not allow us to conclude that these innovative BMs manage to modify the archetypal one in depth.

◦Practical implications – This paper contributes to a renewed analysis of the wine sector by adopting a multi layered perspective, combining micro- and meso-economic analyses. It highlights the fact that there is no “one size fits all” model within the French wine industry, but rather a wide range of strategies that may be encountered within a single wine region.

Key words: wine industry, business model, competitive positioning, resources, institutions

1. INTRODUCTION

The wine industry is one of the most dynamic sectors of the French economy in terms of its contribution to the country's GDP and foreign trade. It occupies a leading position worldwide, with 17% of world production in volume, of which a third is exported. For the past twenty years, it has been undergoing continuous change in order to adapt to new conditions of global competition, as well as to new consumption habits in France, Europe, the US and emerging markets. The French wine industry is complex, framed by a dense institutional environment, combining national and European regulations, agricultural, civil, rural, tax, commercial and administrative law. It is also marked by very strong local identities in the different vineyards which do not allow it to be analysed as a homogeneous entity at the national level.

Evolutions in the sector have been mostly analysed from a governance viewpoint, while analyses at the individual level are still scarce (Alonso Ugaglia et al., 2019). yet, their conclusions are rather clear: there is no “one size fits all” model but rather a wide range of strategies that may be encountered within a single wine region.

This paper contributes to this recent surge for renewing analyses of this sector by adopting a multi layered perspective, combining micro- and meso-economic perspectives. Our starting point is the Business Model (BM) (Osterwalder et al., 2010), a model that describes the process of value creation, distribution and capture by a given organisation in a systematic way. Adaptations within the industry indeed require a progressive evolution of individual business models, in the first place those of the wineries.

We combine this analysis with a global model developed by Peng et al (2009), called the "strategy tripod". The latter integrates industry-based, resource-based and institution-based perspectives on strategy. This allows us to articulate the BM's microeconomic perspective with a mesoeconomic one, as suggested by the components of the tripod. More specifically, we seek to understand to what extent the tensions between the institutional environment in which

business organisations operate, the resources available and the possible competitive positions, can influence individual BMs.

Our hypothesis is that, in a logic of institutional isomorphism (DiMaggio & Powell, 1983), the institutional framework forces businesses to adopt a common competitive position, exploit similar resources, and ultimately adopt a 'typical' BM, common to the vast majority of them, while leaving them some room for manoeuvre. This institutional framework contributes to erecting barriers to entry and settling positions within a vineyard, favouring the most prestigious ones to the detriment of others. Some producers can then choose to ignore this institutional framework to mobilise specific resources, adopt a differentiated competitive positioning and, therefore, an innovative BM.

2. RESEARCH BACKGROUND

2.1. The business model framework

The business model (BM) is a framework that describes under what conditions, in what ways and with what means a company plans to develop and exploit a competitive advantage in order to create economic value and capture a share of it. It is traditionally attributed to P. Drucker in his 1954 book "The Practice of Management". The concept was propagated in the late 1990s with the emergence of Internet start-ups. It is nowadays commonly applied far beyond this particular context. We will consider how BM analysis fits into the field of strategic management, which explores issues related to the development of competitive advantage and rent-seeking.

According to Verstraete et al (2012), a BM is a convention aimed at 'making sense of a company's business'. In fact, there are several ways of representing a BM. According to the same authors, it is the representation of a business expressing how value is generated, remunerated, and shared (GRS representation). For our part, we use the Business Model Canvas (BMC) representation developed by Osterwalder et al, (2010). It models the BM of a company based on nine descriptive blocks, grouped into four components (Figure 1):

- **Supply:** the value proposition is at the heart of the model. It is the set of products and services of the company that create value for its customers.
- **Infrastructure:** value-creating activities are the main activities involved in producing the good or service, and the main resources and partners they require.
- **Customer:** Value transmission and capture activities describe the company's customer segments, its relationships with those customers and the distribution channels for the value proposition.

- Economic viability: balance between cost structure and revenue streams.

The strength of this representation and the reason why we adopt it is that it provides a set of entry points and pathways for each entrepreneur to define his/her own creative process, while highlighting the interactions between the blocks and their logic in a systemic perspective. From a methodological point of view, this representation provides us with a unique analysis grid, enabling a systematic comparison of different organisations within the same industry.

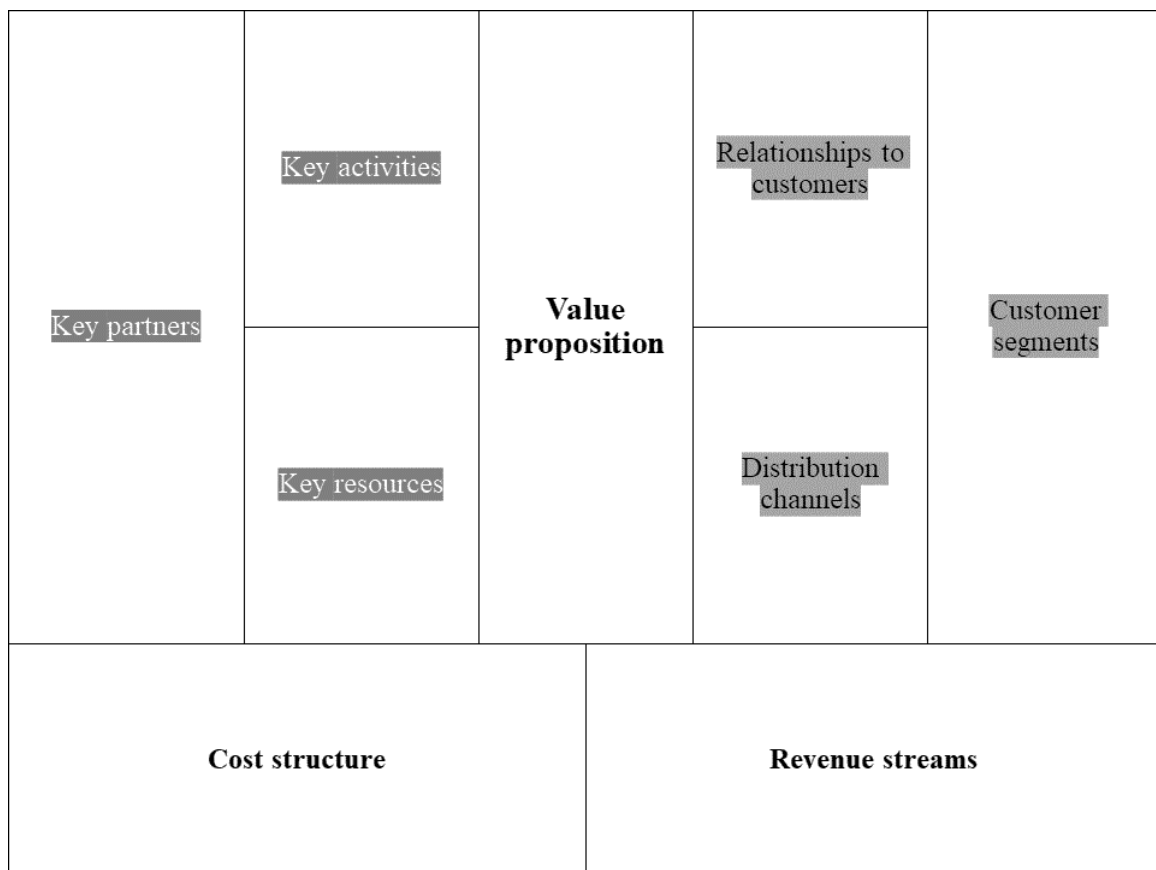


Figure 1: The business model Canvas (Osterwalder & Pigneur, 2010)

The relationship between BM and strategy is equivocal: for Zott & Amit, (2008), they are two distinct areas of analysis. However, according to Desreumaux, (2014), the BM is a 'sort of open participative frame' that can be mobilised from several angles, some of which we will detail in the following section (cf. *infra*, 2.2): the BM does not substitute to previously existing models, but rather acts as a potential 'toolbox' into which they can be transposed.

The BM approach can also be used in a dynamic perspective (Reboud et al., 2021). The alteration by a company of one or more elements of a business model is then defined as a business model innovation (Björkdahl Holmén, 2013) and, given the synergies existing between the components, the change of one of them leads to adaptations of all the others. BM innovation

is said by some authors to result in higher returns than simple product or process innovations (Massa Tucci, 2013).

According to Teece, (2018), Business Model, strategy and dynamic capabilities are interdependent: it is through its dynamic capabilities - understood as 'the result of (i) a sum of processes or routines (ii) whose intentional purpose is to adapt the firm to the environment and enable it to exploit opportunities' - that a firm can steer the evolution of its Business Model and its organisational competencies (Burger-Helmchen Frank, 2011; p. 91).

The BM framework is often criticised for focusing on 'micro-organisational problems and phenomena' and neglecting issues relating to the environment of the firm, a criticism also levelled at the dominant literature in strategy (Desreumaux, 2014). This is in fact forgetting that BMs are shaped by their environments (legal, economic, technological, cultural), which represent both a constraint binding actions and resources to be exploited (Zott et al., 2011).

Authors such as Verstraete et al, (2018) have sought to fill this gap from a conventionalist perspective: if a BM is as such a convention, namely a 'collective cognitive device', or a 'form of shared representation', it does not exist in vacuum, and must therefore take into account the 'conventions of the social spaces' within which it operates. Although our research does not follow a conventionalist approach, we feel that this work contributes to the analysis of BMs by 'opening' them up to take their environment into account.

2.2. The strategy tripod

We develop hereafter a global scheme for analysing BMs using the strategy tripod, a model developed by Peng et al (2009) to reconcile three schools of thought in the young and fragmented discipline of strategy (Chabaud & Sattin, 2018). The objective is first to articulate the microeconomic approach of the BM and a broader perspective suggested by the components of the tripod. In a second step, we seek to show how one of these components, the institution-based view, influences the other two, the resource-based and industry-based views, and ultimately individual organisations' BM.

The first leg of the tripod is the "industry-based" or "competitive positioning" view (Mintzberg & Lampel, 1999; Porter, 1980). Based on the Structure-Conduct-Performance paradigm (Bain, 1959) and made popular by Porter in the 1980s, this school emphasises the demand, supply and competitive conditions in which companies find themselves, which largely determine their strategies and performance. A company must therefore build and maintain its competitive advantage by strengthening its competitive position in its industry (Porter, 1980). This perspective gave rise to the famous 'five force' and 'generic strategy' models in the 1980s and,

in the 1990s, and later to the 'competitiveness of nations' model still widely used today (Porter, 1998).

The value proposition, which is at the heart of a BM, and the 'customer' block address issues raised by this school of thought: Why do our customers choose the company's products? What is the unique value created by the company? To what extent does the company's offer differ from that of its competitors in the eyes of customers?

At the other end of the spectrum, the value proposition combined with resources, partners and value creation activities is effortlessly compatible with the second leg of the tripod, namely the resource-based view, developed by authors such as Barney (1991), Penrose (2009), Peteraf (1993) or Wernerfelt (1984). Resources are defined as 'tangible or intangible assets that firms use to design and implement their strategies' (J. Barney, 1991), including land, buildings, equipment, as well as brand reputation, trademarks or intellectual property. These resources can be classified into four categories (Barney, 1997):

- Financial capital, including monetary resources that can be used to design and implement strategies.
- Physical capital, including the physical technology used, plant and equipment, geographical location, access to raw materials.
- Human capital, including the training, experience, judgement, intelligence, relationships and insight of individual managers and workers.
- Organisational capital, similar to human capital but referring to the attributes of groups rather than individuals.

Based on the assumption that resources are heterogeneous and idiosyncratic, this approach suggests that a firm's sustainable competitive advantage depends primarily on the strategic, distinctive resources it possesses or can access. Resources can therefore be internal to the firm, but also external, for example when the firm uses external partners (subcontractors, etc.) or due to positive externalities. In his VRIN model, Barney (1991) considers that resources can be considered as strategic when they are useful (valuable, V), rare (R), inimitable (I) and non-substitutable (N).

To these first two pillars, which are already largely integrated into the WB model, we add the institutional environment of the company, which defines the framework for its action. This "institution-based view" builds on a corpus that combines institutional economics (North, 1990; Williamson, 1985) and sociological institutional theory (DiMaggio & Powell, 1983). It suggests that the behaviour and performance of a company depend in part on the components of its institutional environment (Monticelli et al., 2018; Peng et al., 2009). This institutional

perspective seems essential to us in the wine industry, where institutions, both formal and informal, play, as we shall see, a key role in the strategies of actors.

Institutions are defined by North (1990, 2005) as a set of rules, representations and common mental frameworks, tacit or explicit. They can be formal (laws and regulations) or informal (norms and values). They indicate whether a particular form of behaviour is acceptable or not, limiting the range of conventional actions, while reducing uncertainty and thus transaction costs (Ditter & Brouard, 2012). Successful firms are therefore those that conform and adapt to institutional pressures in order to gain legitimacy (Oliver, 1991), or those that are able to influence the institutional framework (Dockès, 1999). A firm's BM must therefore take account of its institutional environment, which frames and constrains its actions, leading it to mimic its competitors, a phenomenon that DiMaggio & Powell (1983) describe as 'institutional isomorphism'.

Institutional isomorphism can be analysed along three dimensions (Scott, 1995). The regulatory (or legal) dimension consists of the capacity to produce rules, to attest to their respect and, if necessary, to impose sanctions. Coercive institutions are thus defined as a set of rules and a system of sanctions that constrain the behaviour of actors. The normative (or social) dimension implies that institutions guide individual behaviour by defining what is expected or appropriate under specific circumstances. Normative institutions, such as values and norms, are therefore intended to guide agents by providing them with criteria for decision-making. They are not sources of sanctions but can be as binding as coercive institutions. Finally, the cultural dimension includes symbols (words, signs and gestures), as well as cultural rules, which guide our understanding of reality. They consist of mental frameworks associated with specific forms of behaviour.

The institutional perspective understands institutions as a "way of regulating the conflicts inherent in the divergence of interests and power positions" (Théret, 2000). Taking up Williamson's (1985) analytical schemes, Croidieu and Monin (2011) distinguish between institutional players, governance structures and institutional logics. The former are individual or collective actors who interact in a given institutional field. They may occupy a dominant position or seek to challenge the position of other actors. These power relationships are institutionalised by governance structures which, through norms and laws, structure the field and the practices of the players. Finally, players behave according to a certain number of dominant beliefs, values and practices, called institutional logics of action.

For North (1990), institutions are imposed on economic agents as the 'rules of the game' but are themselves a product of their behaviour and strategies, as well as the compromises they

reach in the course of their interactions (Ditter & Brouard, 2012). A key ‘game changer’ is the institutional entrepreneur, defined as an agent ‘who creates norms, models, values and behaviours consistent with (his/her) identity and (his/her) interests, which (s)he establishes as standard and legitimate vis-à-vis others’ (DiMaggio, 1988; Zimmerman & Zeitz, 2002). The main characteristic of the institutional entrepreneur is his/her ability to forge new connections that defend and promote his/her own interests and help to shape a new configuration of the network in which (s)he operates (Boyer et al., 2007).

The perspectives developed by the ‘tripod’ highlight the possible tensions between the three components of a company’s strategy and their repercussions on its BM: whereas industry- and resource-based views encourage the company to distinguish itself from its competitors (differentiated positioning and distinctive resources), the institution-based view emphasises, on the contrary, mimicry in the quest for legitimacy under an institutional isomorphism logic (Peng et al., 2009). We suggest that institutions, both formal and informal, are a centripetal force that largely affects the other two pillars of the tripod, which are themselves centrifugal forces: they constrain both the resources that firms can activate, the conditions of competition and, ultimately, their positioning and therefore their value proposition (see Figure 2).

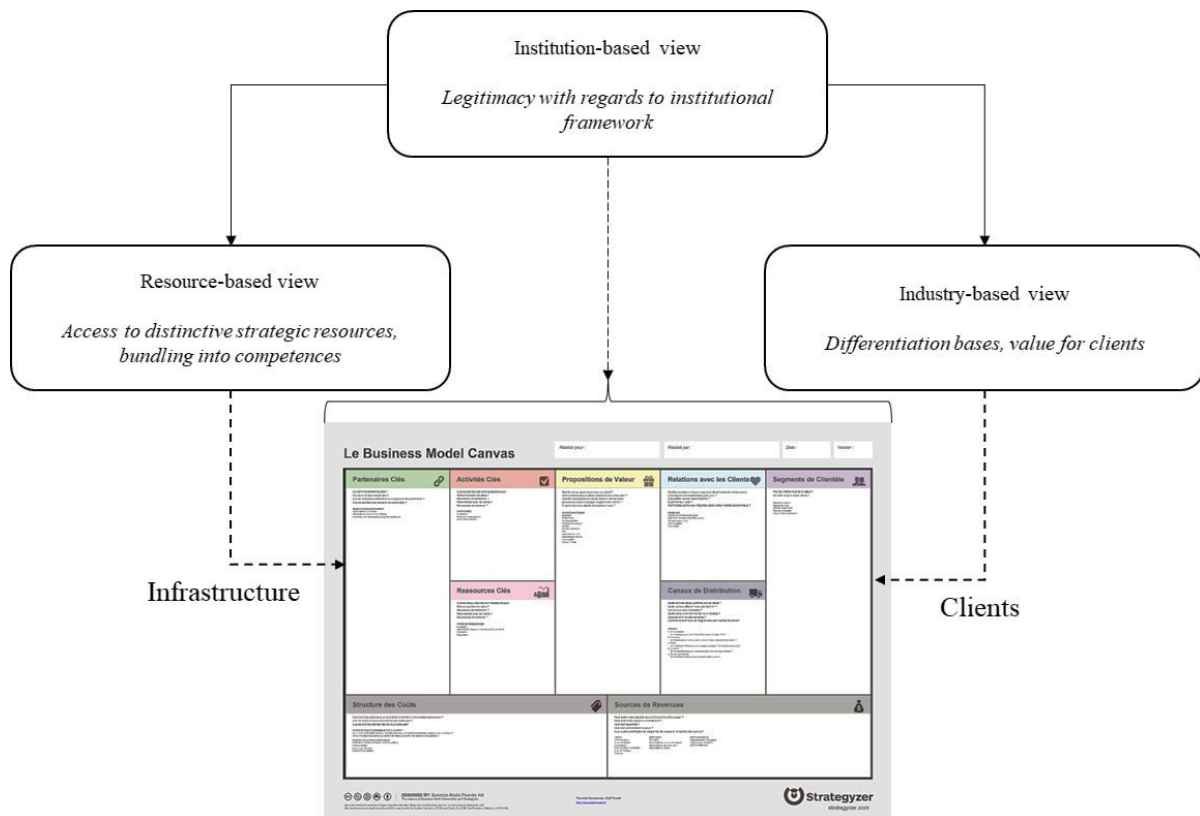


Figure 2: The business model canvas and the strategy tripod, adapted from Osterwalder et al. (2011); Peng & Khoury (2009)

These tensions are strong in the French wine industry, where history, culture and the PDO system impose strong constraints in terms of competitive positioning (differentiation by origin), the availability and use of resources (e.g. constraints on irrigation, origin of grapes), production processes (e.g. yields), components of the final product (e.g. authorised grape varieties), or even communication (authorised mentions on labels). We thus consider a vineyard as a set of specific institutions in a given geographical space, which contribute to its identity and facilitate interactions between agents (Ditter & Brouard, 2012, 2014). The example of Burgonéo developed by Asselineau (2010) shows how an original BM, yet neglecting its institutional environment, led to the failure of the entrepreneurial project.

We can deduce that each particular institutional environment corresponds to a 'standard BM' applied by businesses (wineries, traders), which will then seek to differentiate themselves within their imposed framework. This hypothesis will be tested in the next part of this study, which will also enable us to highlight how certain actors will differentiate themselves within a given institutional environment, or even refuse institutional isomorphism in order to call on new resources, develop an original positioning and, ultimately, BM innovations (Laifi, 2012) (see Figure 3).

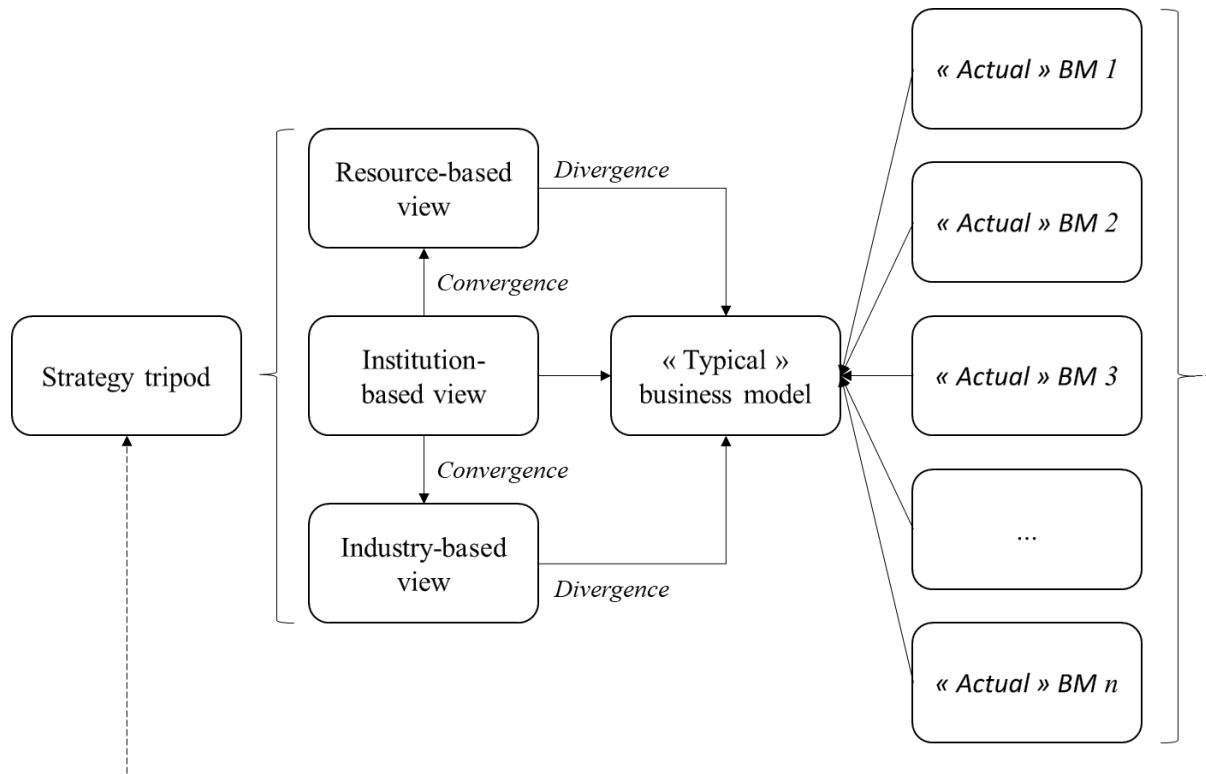


Figure 3: Articulating business models and the strategy tripod (own research)

3. ANALYSING THE CHAMPAGNE VINEYARDS

3.1. Research methodology

We build on the multiple case study method (Yin 2009), that helps ‘predict similar results or produce contrasting results but for predictable reasons’ (Johnston et al. 1999: 206). All business models were analysed by applying the BMC methodology (Osterwalder, Pigneur et al., 2010). The analysis is based on the description of the economic models of four champagne houses, four family estates and one combined exploitation. A visit was made to each wine company, which led to the drafting of its business model canvas. The visits were spread over several one-week periods between 2015 and 2019. Primary data obtained in our visits were supplemented by secondary data from specialist newspaper articles and companies’ websites. Historical data pertaining to wine regions were obtained from the extant literature on the topic.

Table 1: Field visits

	Core business	Status	Size (hectares)	Date of interview
E1	Wine maker	Family estate	8	2015
E2	Merchant	Independent champagne house	36	2015-2018 (2 visits)
E3	Merchant	Subsidiary champagne house	388	2015
E4	Merchant	Subsidiary champagne house	250	2015
E6	Wine maker	Family estate	18	2018
E7	Wine maker	Family estate	14	2018
E8	Merchant	Independent champagne house	10	2018
E9	Wine maker	Family estate	7	2019
E10	Wine maker, merchant	Champagne house Family estate	25	2019
E11	Wine maker	Family estate	8	2019

The Champagne vineyard was selected for various reasons. First, its size and its worldwide reputation for quality are such that it is one of the biggest contributors to French foreign trade, and a driving force for the evolution of the wine industry and, especially, of quality wines at the global level. Furthermore, it has a long-lasting history, giving rise to distinct institutional traits, which we can find in the resources, competitive positioning and ultimately the BM of local producers. In Champagne, winegrowing emerged in the Middle Ages and became a world leader and model for the production of sparkling wines at the turn of the twentieth century.

3.2. Champagne: history and institutions

The champagne vineyard represents nearly 34,000 hectares, i.e. just over 4% of the French vineyards, and produces about 302 million bottles. Yet, it accounts for 33% of French wine exports in value. The production, elaboration and marketing of champagne is based on more than 16,000 small growers who cultivate the vast majority of the region (90%), 132 wine

cooperatives and 320 wine merchants (*maisons de champagne* or champagne houses) (Comité Champagne, 2020). The latter are at the root of the reputation and prestige of Champagne wines, especially for export. Their size and strategies are very different, with production ranging from 20,000 to several million bottles for ‘grandes maisons’.

Since the beginning of the nineteenth century, champagne houses have sought to develop exports, relying in particular on the networks they had built up in the textile trade. The region specialised in sparkling wines, which were the most in demand, particularly in the German and British markets (Guy 2003). Houses then adopted a strategy of increasing the quality of the product in order to further develop these external markets. They also set up a communication strategy via their decorated labels bearing the names of the brands (poster, painting, music, newspaper advertising). The luxury image of champagne thus dates back to this period (Guy 2003).

At the same time, the distribution of roles in the sector was settled, between growers who produced the grapes and sold them to merchants and the latter, who carried out the blending, created the sparkling wine and marketed it. The relationships between champagne houses and the growers are still today mostly organised on a long-term basis. However, most houses also own their own vineyards, particularly in the most prestigious areas (*crus*). Even though most of the production is sold to merchants, growers, for their part, often market bottles under their own name and brand.

It was also during the nineteenth century that many legal protection procedures were undertaken, leading to the creation of the Champagne AOC (PDO) in 1936. The recognition of the appellation consecrated the specificity of this collective heritage and contributed to the establishment of champagne as a luxury good. For this type of good, as can also be the case for a perfume, the value not only derives from the manufacturing cost, but also integrates the idea, creativity, culture, image and heritage (Barrère 2007), as well as specific localisation resources and know-how (Smith Maguire and Charters 2021).

3.3. BMs in the champagne vineyard: analysis and results

The ownership and promotion of the historically acquired heritage, which cannot be relocated, is an essential asset of these businesses which, even if they are luxury products, can be manufactured industrially by companies owned by financial groups such as LVMH, the world leader in the luxury industry.

These heritage aspects are thus highly valued and maintained through communication and event strategies, particularly by champagne houses (Smith Maguire and Charters 2021). The most

important ones offer paying visits and host a large number of visitors, while other houses and estates only organise visits and tastings for professional customers. Visits for the general public focus on historical aspects and tours of the vineyard, winery and cellars. Other types of events are also organised: polo games or cruises, contemporary art exhibitions, food and wine tastings in the prestigious hotels and restaurants owned by the houses.

These events can be offered as wine tourism services, but they are considered more for high-end houses as designed to welcome guests who will play the role of product prescribers and brand ambassadors. Specialist magazines and guides (Bettane+Desseauve, Guide Hachette) play an essential prescription role for all interviewed estates and houses. In terms of wine tourism, champagne houses place greater emphasis on the 'champagne' product and its luxurious symbolism, while growers put greater value on the terroir, which may cause tensions in the collective definition of what the heritage of champagne is and actions for promoting it (Gatelier et al. 2014; Smith Maguire and Charters 2021).

If the biggest houses producing several million bottles per year sell in supermarkets and massively export their production, other actors put emphasis on traditional channels (hospitality, wine boutiques) and direct sales (with a reservation system in some cases), but above all export (from 40% to 75% of their production). Digital communication is relatively limited and is rather the focus of the biggest champagne houses, which have dedicated staff for these tasks. There is generally no sale via houses' and growers' websites but rather through specialised sites (e.g. La Champagnerie, Lavinia, Idealwine, Carré des vins).

Today's less clear-cut differentiation between champagne and sparkling wines that partly explains their (relative) loss of competitiveness. Indeed, since the 2008 crisis, the champagne industry has suffered from declining shipments while, during the same period, the sparkling wine market has grown very significantly in volume (France Agrimer 2019). Champagne growers have been the hardest hit by this competition from sparkling wines produced in France (Crémants from Alsace, Burgundy, Loire), and also abroad (prosecco from Italy, cava from Spain) (Ringeval-Deluze 2019).

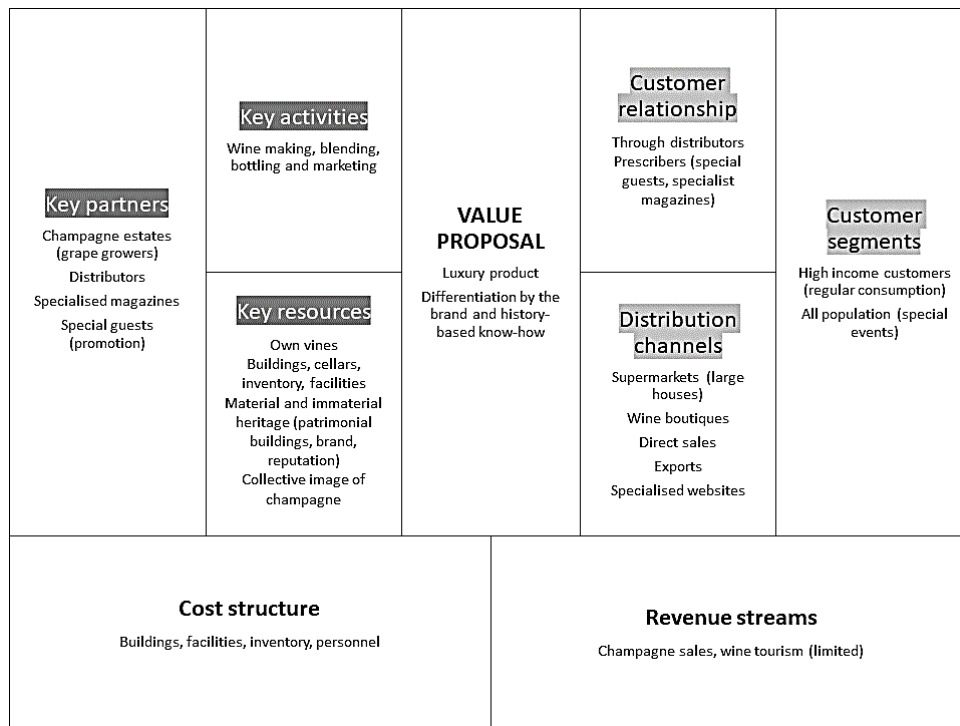


Figure 4: Merchants' business model

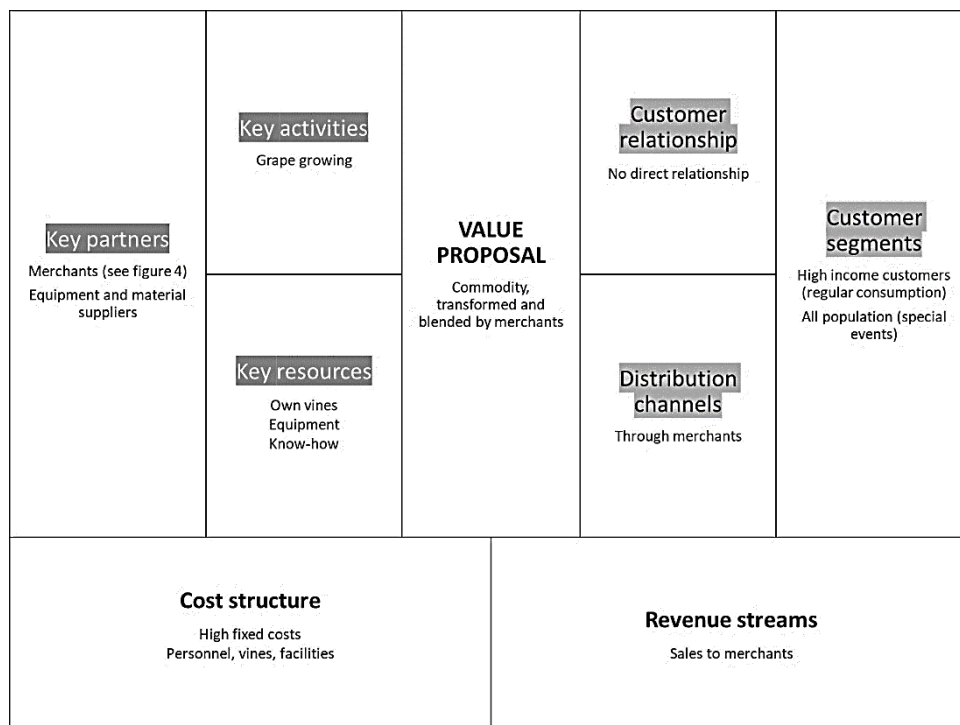


Figure 5: Estates' traditional business model

Our interviews show a recent evolution in the business models of champagne vintners and houses. First, there is an evolution in the supply of champagne produced in organic agriculture or even biodynamic agriculture. This proportion of organic certified champagne is still low compared to other regions (only 2.9% compared with 12% for France overall), but many claim

the right to treat if necessary (and therefore not to be certified) while having changed their cultural practices (e.g. limiting herbicides, grassing plots, tillage).

In this perspective, champagne houses display various certifications such as Sustainable Viticulture in Champagne, HEV (High Environmental Value), ISO 9001 and 14001. One house claims to offer the first eco-citizen champagne, a juxtaposition of sustainable development approaches, including viticultural practices as much as the reduction in the weight of bottles or the use of labels printed on recycled paper.

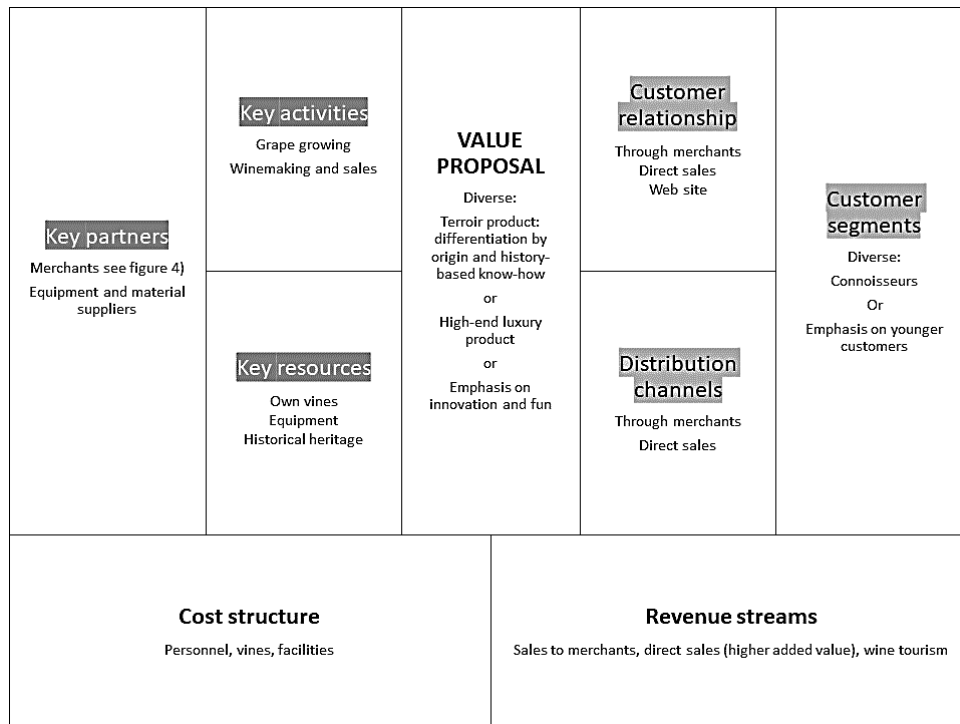


Figure 6: An evolution of estates' business model

Furthermore, the search for new, younger customers is one of the strategies pursued, especially by the houses. This strategy involves developing product innovations (Cuvée Bulles d'argent, small format for consumption through a straw or directly from the bottle, different glass shapes), processes, distribution channels (online sales sites) and consumption times and methods (night clubs or bars, cocktails). New players may also emerge. Some companies break with the luxury and heritage image of champagne: a different process, an original and offbeat back label or the use of new technologies such as augmented reality.

In today's highly competitive sparkling wine market, there is a heterogeneity of profiles, with some houses seeking to develop new activities (wine tourism) and to rejuvenate their consumer targets (product innovations, in terms of marketing) while others continue to present themselves as houses whose high-end champagne is dedicated to connoisseurs. Among the growers, there are also different profiles, from the producer seeking to offer a terroir champagne with a good

quality/price ratio compared to that of the houses to the estate that offers a top-of-the-range champagne from a limited number of cuvees.

4. CONCLUSIONS

This paper aimed to provide a first analysis of the extent to which the institutional environment of a given French vineyard, that of Champagne, could influence the positioning, resources and ultimately the BM of its operations, but also the extent to which they can deviate from it. The results obtained show that, for most estates and merchants estates studied, the reference to the traditional BMs of the vineyard remains unavoidable, even though each of them presents more or less marked deviations from it. Local institutions are not questioned because they provide efficiency and stability both to the estates and merchants.

Yet, some estate among those analysed have developed a specific BM at several levels (value proposition, resources, customer relations, marketing channels). These BM innovations allow them to differentiate themselves in terms of resources and products and to better capture the added value created by avoiding the intermediation of merchants. Although it seems to be proving its effectiveness and attractiveness to a few estates, this new BM does not seem to fit into a logic of institutional entrepreneurship: its knock-on effects are limited and do not call into question the entire system.

These initial results lead us to consider several directions for future research. The first direction would be to look more closely at the behaviour of individual producers in response to their institutional environment, based on the work of Oliver (1991). The latter identifies five possible strategic responses - acceptance, compromise, avoidance, contestation, manipulation - to the pressure of the institutional environment, all of which can have an impact on the BM of individual estates.

A second line of research, complementary to the previous one, would aim at deepening the understanding of the interactions between the 'meso' and 'micro' levels of our model in a dynamic perspective. While the influence of the institutional environment on the BM of a vineyard's estate is fairly well understood, the channels through which BM innovations can influence the vineyard's institutional environment are less well known. Our model thus offers an interesting framework for analysing the transformation of an entrepreneur into an institutional entrepreneur.

The third axis is comparative: the famous "Judgment of Paris" of May 1976 marked the recognition of the quality of Californian wines by experts from traditional producing countries.

The Californian vineyard has not ceased to develop and to gain in reputation to the point of becoming a reference in a context of globalisation of the sector, to the point that one comes to evoke a progressive "Californization" of the vineyards of the "Old World". It would be interesting to carry out a longitudinal and comparative study of BMs in Champagne and California in order to identify common points, and possible hints of crossed influences.

A final avenue of extension relates to the recent COVID-19 pandemic. The period of lockdown and measures to restrict public access may contribute to questioning local BMs. Further, the use of digital technologies and social media may be reconsidered: can it be considered an acceptable substitute to hospitality services or remain a complement to it? The impact of these recent developments need evaluation. A longitudinal study would thus allow us to improve our knowledge on this issue.

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In a Search of the Networking Wine Business Model of Alsace and Burgundy

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Abstract

◦Purpose – If networking is understood as the process toward connectivity and disappearance of inner and outer sides of the network, then a network itself cannot be perceived as the dualistic relationship. In our understanding, networking consists of the interaction between tourism destination and tourists' experiences

◦Design/methodology/approach – We follow a new methodological approach of analyzing the tourists experiences in the web of wine road touristic offers. We discuss how this approach can become a base of diagnosing wine tourism routs networks regarding their touristic capabilities.

◦Findings – This paper is an attempt to offer a new theoretical approach and a connected methodology. From a theoretical perspective we propose an ontological shift from a strategical management perspective of static networks to a dynamic value co-creation paradigm.

◦Practical implications – Empirically we designed a qualitative approach of following the tourists holistic web of interaction and experiences and exemplify this method by analyzing the models of Alsace and Burgundy.

Key words: wine tourism, wine routes, networking capabilities, domain of experiences

1. INTRODUCTION

From the tourism management point of view the inter-organizational business model is a key factor of shaping a tourist experience. This approach is rarely used in the wine business analysis, and particularly in the context of wine route networks. The literature so far has focused on static networks of actors in the wine route and related them with output measures. However, in order to understand the dynamic experiences of a tourist in the wine road, there is a need for new concepts and a new research methodology and philosophy. It requires a change in perspective for disentangling the wine business collaboration of which understanding has to be embedded in a dynamic process of co-creating consumer. For this reason, the paper offers a methodological shift in diagnosing the networking potential of a wine route, turning it from a strategic management perspective to a value co-creation perspective of analysis. Thereby we want not any more to depict the wine producers' engagement in a static network (i.e. number of nodes in the network, strength of connections, etc. vs the number of tourist visits, trade effects etc.). Rather we aim at analyzing the dynamic network of experiences (and thereby customer value) a wine tourist' is going through. Therefore, the aim of this paper is to propose a theoretical concept of the value co-creation paradigm and its application into the wine route' business models of Alsace and Burgundy.

2. RESEARCH BASIS

Wine networks have often been investigated in the regional tourism context derived from strategic management background. According to this classical approach the main point of tourism management is the cooperation between the local government and wine producers. Theoretically at least, their collaboration should lead to the improvement of wine tourism products, services, qualities, attractions, e.g. through taking up investments, initiatives, projects (Getz & Brown, 2006). The effects and results of this cooperation are beneficial for all; wine producers by reducing costs and achieving synergies (co-share tourism products e.g. tourism information platforms, package tickets etc.), as well as for the local policy makers by having more prosperous destination (increase of tourism industry through collaboration and destination branding).

Another existing segment of analysis in wine tourism is related with consumer behavior, so to speak in touristic terminology- wine tourist reasoning of undertaking a wine tour or to have a wine visit to the destination, or motivation of coming to the wine region (Alant & Bruwer,

2004). So, from a wine tourism networking point of view this body of knowledge is well-incorporated into the marketing approaches.

Wine tourism as the important but mostly applied and practical body of work, had been analyzing without any theoretical background or conceptual framework to put it into a regional development context (Carlsen, 2004). Up to now, the body of knowledge on wine tourism has much extended offering the approaches related with wine business networking. They can be divided into the following groups of research lines:

- **networking in terms of the region collaboration:** meso-level approach tackling questions of wine producer clusters in order to promote regional wine traditions and wine culture, stimulate wine tourism offers, reduce transactional costs etc.,
- **networking identity within a wine route organization:** meso-level approach estimating wine tour as one of the major activity in wine tourism in the aspect of shaping destination management (e.g. wine tours, wine festivals, wine & dine, wine museums etc.),
- **networking in terms of wine consumers or wine tourists segmentation:** micro-level classification of wine tourists behavior, segments of wine drinkers, wine followers.

To synthesize the most shared perspectives on networking in wine tourism refer to either the problem of consolidating wine tourism suppliers within wine network or cluster (Mitchell & Schreiber, 2006), or to the problem of organizational identity (within wine organization, wine routes, wine trails, wine tourism associations etc.). An additional research stream which is usually not combined and discussed in the aspect of wine business networking is the marketing perspective based on motivations, segmentation and customer behavioral involvements into enotourism (Becker, 2013).

3. DISCUSSION, INCLUDING RELEVANT LITERATURE REVIEW PROBLEM STUDIED

If looking from the theoretical point of view upon all aforementioned approaches or perspectives of analyzing networking in wine tourism, it can be summarized that they belong to the same ontological background – strategical management (**Figure 1**), and by so are rooted in the shared logic of understanding networking as well as value creation processes.

However, what has not been integrated into the literature so far is the value co-creation paradigm (Ramaswamy & Ozcan, 2014). In value co-creation the basic unit of networking is an engagement interaction on the wine route with tourists while they are participating in wine

tours and tourism flows in general. Meanwhile in the traditional understanding of strategic management the unit of analysis is the collaborative relations within wine route.

The first approach involves the tourist domain of experiences which become a medium to recognize networking capabilities. Thereby the tourism destination (the wine route) is not understood as a physical place but as an individual domain where meaningful interactions take place. The networking capability emerges and can be captured from a tourist' experiencing perspective (used services, participation in events), in where changeable contexts flow and thus should be interpreted in accordance with the individual tourist' meanings and involvements. That also implies that a network is not a static relation of nodes, but flowing and fragile stream of interaction, manifestations and experiences, and because of that the network logic cannot be caught only by formal inter-organizational relations (**Figure 1-** strategic management approach).

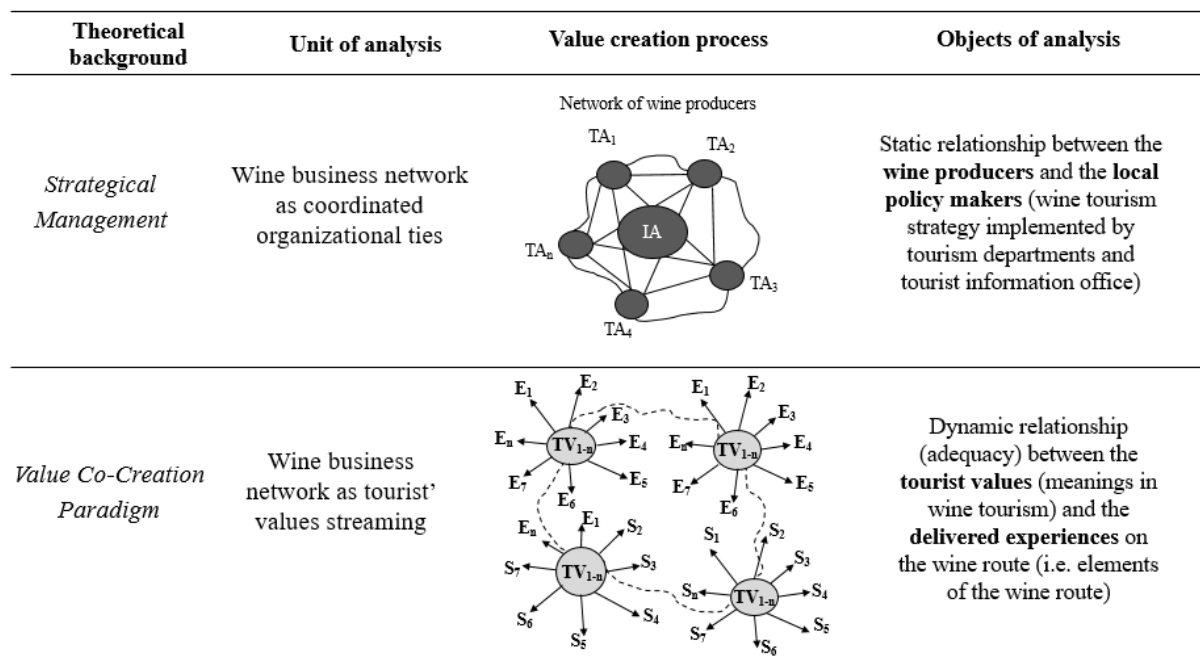


Figure 1: The shift of understanding the networking in wine tourism

Key:

TA_{1-n} – wine tourism actors (network of wine tourism attractions)

IA – integrator actor of wine tourism organization (local government)

TV_{1-n} – tourist values (expectations of the wine tourism services)

E_{1-n} – experiences (tourist route of services)

Source: Author's own elaboration

Therefore the main research idea is to use co-creation paradigm as the theoretical base of wine tourism networking. It is then seen from the bottom-up perspective and turns on analyzing a relationship between tourist values (elements of the wine route which were the main motivators of visiting the region) and the real-time experiences co-created by the service supplier of the wine route. As it is exposed on the **Figure 1** wine networks can be then constructed throughout the tourist values routes.

To sum up, the main research benefit of following the tourist' values routes is a detection of network movement. To speak practically, how the collaboration between wine producers and other tourism suppliers (e.g. restaurants, hotels etc.) affects the way tourist are moving on the wine route. Is this movement driven by tourist choices or there is any type of wine producers and service suppliers networking that makes it easier, more difficult or impossible at all? To which extend do tourists rely on wine producer and service suppliers networking? How is it helpful in delivering solutions for emerging tourists requirements, problems and various expectation? All of these questions are essential for the new directions of wine tourism management.

4. IMPLICATIONS AND RECOMMENDATIONS

The domain of experiences origin from the value co-creation paradigm have been operated to illustrate a customer flexibility in value composition. In the tourism context however, it should be used in another sense, as certain routes of tourist' activities, tours, visits etc. which can be ordered into value streams (engagement interactions). **Figure 2** put them into opposite domain constructions: A traditional and a dynamic networking capabilities vies of spending time in wine route.

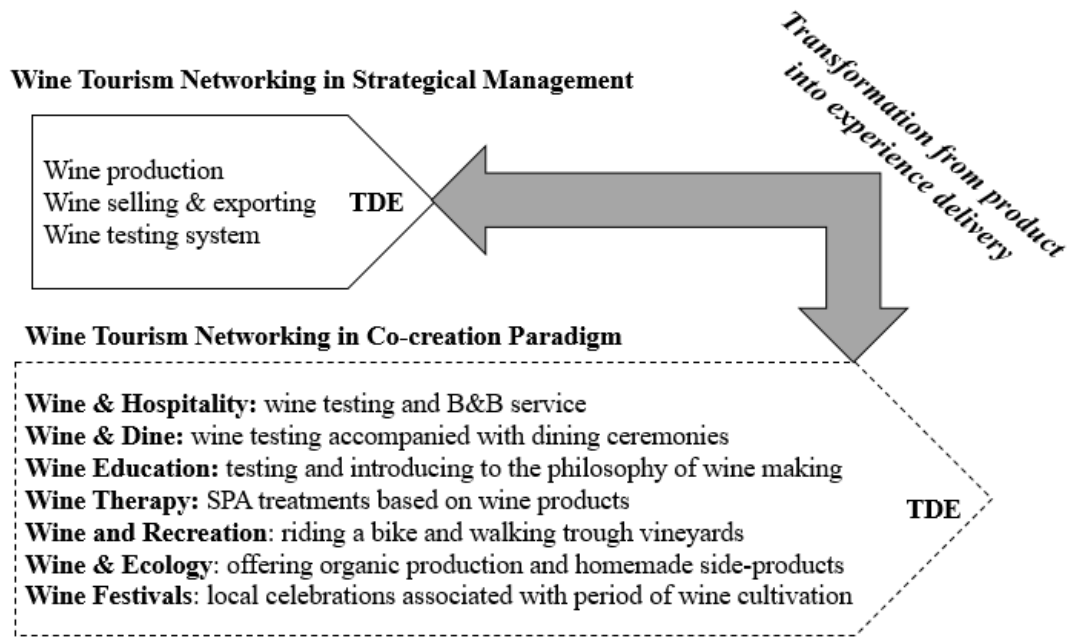


Figure 2: Networking tourist's domain of experience on the wine route

Key:

TDE – tourist's domain of experiences

Source: author's own elaboration.

Figure 3 exemplifies the model of networking in the Alsace Wine Route. Central to the business model of the route which the tourist is experiencing are wine tours as regular and wide range of wine testing tours accompanied by wine festivals organized each weekend in different cities or towns. Tourists are fully and perfectly supported by both, tourism networks (e.g. tourism information are located even in the small towns) as well as wine networks (e.g. coordination of wine testing hours and high standards of tourist's wine education). Thereby their dynamic experiences during their wine vacation is holistic. Because of the topological neighborhood of wine cities and towns, the key model of time spending is to travel from town to town by walking, bicycling or in another way. Thus, in the tourist's domain of experiences the value streams are linear and composed from wine tasting and wine festival, of which frequent organization Alsace is the World market leader.

An additional complementary supporting element in Alsace is supported by castle viewpoints tours that can be also turned into a hiking tours. Thereby the regional business model offers an integrated dynamic web of possibilities for its tourists.

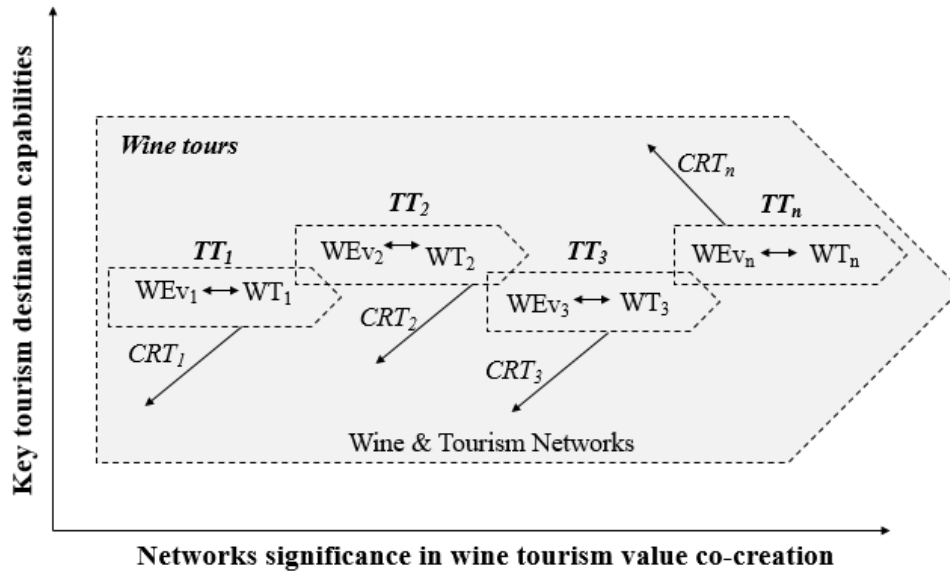


Figure 3: Tourist's domain of experiences in Alsace

Keys:

WEv_{1-n} – **wine events** (weekly organized by tourism organization in cooperation with wine associations)

WT_{1-n} – **wine testing** (daily organized by wine growers, wine farms, wine & agrotourism farms, wine shops)

TT_{1-n} – **town tours** (Alsace wine towns and/or villages)

CRT_{1-n} – **castle and recreation tours** (supporting wine tours)

Source: Author's own elaboration.

The second case we studied was Burgundy. Burgundy itself contains several wine routes. The topological construction is more centralized what naturally leads tourist to plan a wine tasting only in centralized style (max. to have once a day). Outside of the cities historical wine castles are located that offer complex time spending (wine museum, castle tours, wine tasting, walking along wineries). Usually they belong to wine brotherhoods that keep the traditions ongoing and play the most significant role in historical event networking. Thereby the Burgundian domain of experiences comprise in from first of all historical events (e.g. cavalry tournaments, medieval shows), equally with historical tours in abbeys, castles and villas (**Figure 4**).

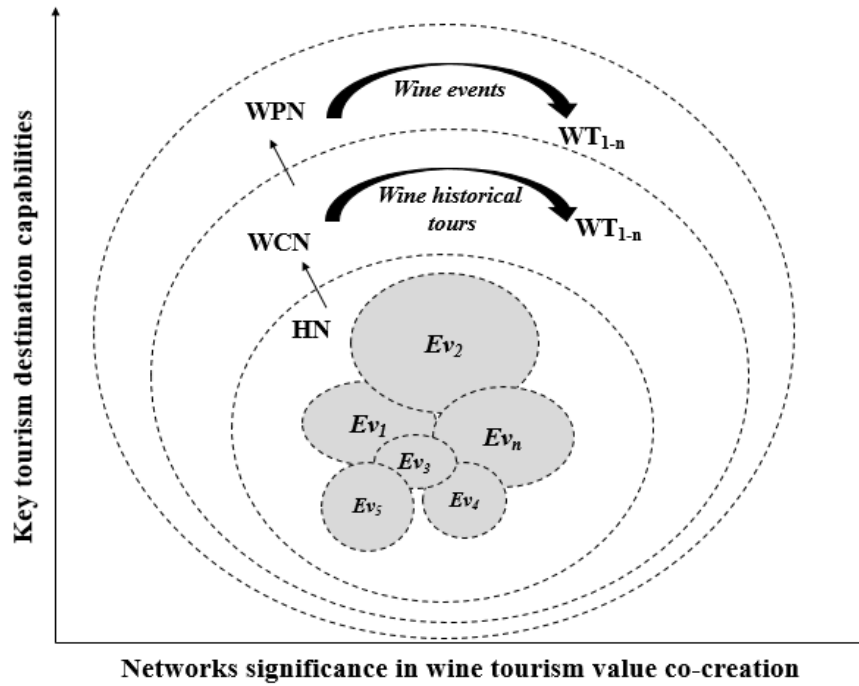


Figure 4: Tourist's domain of experiences in Burgundy

Keys:

HN – historical networks (e.g. Burgundian brotherhoods)

WCN – wine castle network (wine castle is in Burgundy a combination of historical castle, wine producer and wine museum)

WPN – wine producer network (combined members from both, historical and wine producers networks)

Ev_{1-n} – events (historical events such as chivalry tournaments organized by Burgundian brotherhoods)

WEv_{1-n} – wine events (organized by the tourism organizations in cooperation with wine producers network)

WT_{1-n} – wine testing (organized by wine producer network)

Source: Author's own elaboration.

In most of them exhibitions and tours are offered dedicated to wine cultivation and history. To summarize, spectacular events related to history are in the center of the business model, which oftentimes are accompanied by historical wine tours, and on the periphery, there are wine events. Therefore the network of experiences of the customer is not being as holistic and dynamic as in Alsace, but more centralized with a core and a periphery.

5. CONCLUSIONS, INCLUDING PROPOSITIONS FOR FUTURE RESEARCH

To sum up the main research optic is a **value co-creation as a networking bridge** between the tourist's domain of experiences and the tourism destination capabilities. We introduce two major assumptions about wine tourism networking and research on the latter: Firstly, through the domain of the tourist's experiences, there is an access to explore the networking dynamics in the wine route for the researcher. Secondly, each wine tourism destination in order to become

an integrated holistic wine route has to find its own model of creating a network of experiences for wine tourists (e.g. event network).

In the analytical part of our research we confronted Alsace and Burgundy from the proposed dynamic network experience point of view (**Figure 5**). While Alsace was identified to have a floating integrated network of potential experiences related to wine and other complementary time spending models, Burgundy as a tourist destination was identified to be more centralized around historical events accompanied by wine historical tours and wine events in the periphery.

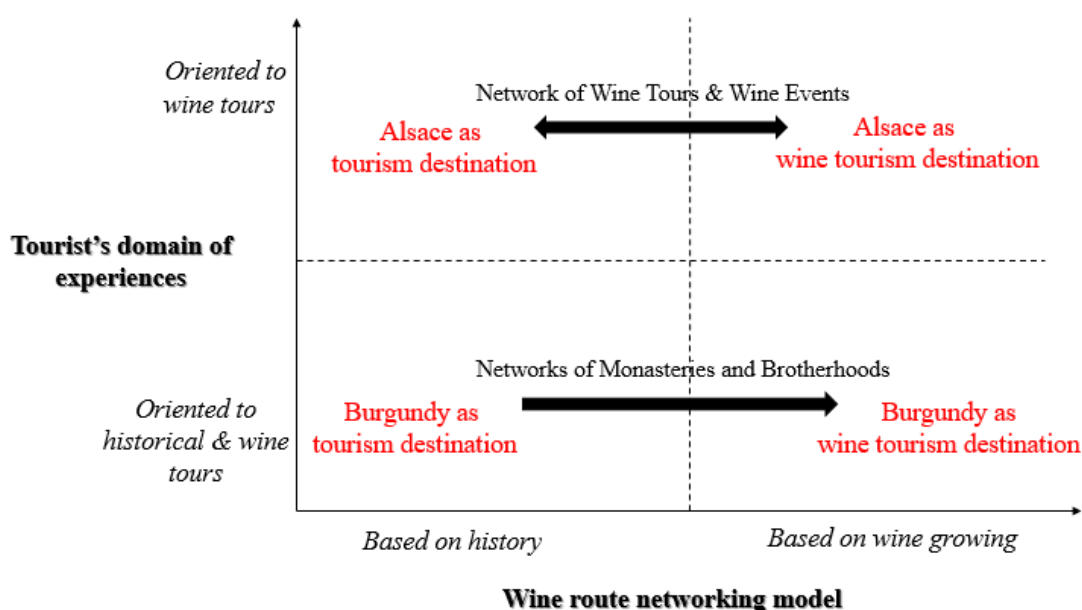


Figure 5: Networking mainstreams in Alsace and Burgundy

Source: Author's own elaboration.

The Alsace tourism business model is based and perfectly synchronized with wine tourism. Burgundian harmony is composed mainly through the historical networks that up to now have been building the wine identity in the region.

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CONSUMER

Wine and Value: An Extended Abstract

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1. INTRODUCTION

Neil Diamond wrote *Red, Red Wine* in 1968, later covered and popularized by UB40. The song's lyrical theme depicts wine as a prescription for romance and disappointment, indicating that wine provides value as a coping mechanism. Wine's value extends far beyond coping and perhaps no consumer product is more widely depicted as celebratory depicted well in the Veronese painting of *The Wedding Feast at Cana*, residing in Paris conspicuously opposite the Mona Lisa. Wine satisfies more mundane purposes as well as a digestive aid when matched with food. The appropriate use of wine, like with many other products, can enhance or become deleterious to quality of life. The research program described here aims at developing a psychometric device for assessing the general value appeal of wine as a human individual difference.

2. PRELIMINARY LITERATURE REVIEW

Early archaeological evidence found in the South Caucasus suggests that people have used wine as a social lubricant, for medicinal purposes, and for its mind-altering properties (McGovern et al. 2017). In such cases, the pleasure associated with the consumption of wine can be considered visceral. Cambridge Dictionary (2019) defines the term *visceral* as a pleasure "based on deep feeling(s) and emotional reactions rather than on reason or thought." However, not all reasons for consuming wine are that intangible. Literature also describes lubrication (thirst satiation) as a primary purpose of wine consumption (Charters & Pettigrew, 2008). A separate category of motivation concerns pairing wine with food, socialization, and intoxicating properties. Social pressure also plays a role in wine consumption and can manifest itself in threats to self-identity (Charters & Pettigrew, 2008).

The visceral perspective can be contrasted with an epicurean dimension. Cambridge dictionary (2019) defines epicurean as "getting pleasure from food and drink of high quality." Unlike hedonic pleasure, epicurean pleasure is distinctively associated with wine (Merriam-

Webster, 2019). Furthermore, the term *Epicurean* avoids moral judgments associated with other terms and can be associated with drinking in moderation (Cornil & Chandon, 2016). Cognitive concepts such as intellectual challenge, diversity, and exploration of, for instance, grape variety have also been shown to be motivators of wine consumption (Charters & Pettigrew, 2008). Epicurean pleasure places wine within the realm of art (Charters & Pettigrew, 2005). Further, an epicurean view holds that drinking pleasure goes hand in hand with moderation and wellbeing. In the discord between indulgence and restraint, this epicurean view is illustrated by the “gastronome” or “philosopher-diner,” who does not consider food and drink as intake, but much more importantly as a full sensorial and emotional experience (De Kerviler 2019). Gastronomes have acquired a sense of taste, gained through the development of a large repertoire of culinary options, allowing them to develop abilities to be discerning and discriminating vis-à-vis a variety of consumption experiences. In his book, *The Physiology of Taste* (1825), Brillat-Savarin intellectualizes and rationalizes gastronomy by dissecting the entire gustatory experience and by comparing it to an art. Taste is an instrument of aesthetic sensitivity and intellectual discernment between the laudable and the pedestrian (Ferguson, 2011).

The value pursued and derived from consumption experience has been captured parsimoniously in a small number of dimensions. Babin, Darden, & Griffin (1994) present the PSV scale capturing shopping value in two, non-mutually exclusive dimensions: utilitarian and hedonic value. Cornil & Chandon (2016), in much the same spirit, present a vehicle for assessing eating pleasure along visceral and epicurean dimensions. Consistently, other research identifies consumer wine personality as an important trait and distinguished a social dimension from a philosophical dimension of wine personality (Spielmann, Babin, & Verghote, 2016). Still, other research suggests that men consume wine in an epicurean manner relative to women, who appear to value more the social aspects of wine (Thach, 2012).

3. RESEARCH PROBLEM INVESTIGATED

The research presents the initial development of a scale representing wine consumers’ orientations for, and value pursuit, of drinking wine. Understanding the motivation drivers of different psychographic segments becomes essential for developing effective global marketing strategies (Spawton & Lockshin, 2004).

4. RESEARCH METHODOLOGY

The initial stages of research rely heavily on content analysis of qualitative interviews in which consumers and service providers describe reasons for the consumption of wine. The content reveals the potential content for psychometric scale development. Expert judges then assess the content and attempt to classify meaningful statements into meaningful categories. Later stages of the process involve statistical analyses employing multivariate procedures including confirmatory factor analysis. In general, the scale development methodology that is followed is well-documented in many sources (see Hair, Babin, and Krey, 2017 – for a review).

5. CONCLUSIONS

The eventual goal is to provide a tool for wine researchers and practitioners to use in assessing how value is achieved from the consumption of wine, in general, and in specific contexts. As a consequence, recommendations can be made toward encouraging a consumption of wine more promotive of high quality of life. In addition, for wine marketing, the scale may provide an essential vehicle in understanding the positioning of wine and wine brands relative to other food and beverage offerings.

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Available upon request.

Is Wine an Experience Good?

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Abstract

◦*Purpose* – Many economists have claimed that wine is an experience good. If true, that complicates the wine transaction and market efficiency but suggests a simple approach to educating consumers. Anecdotal and published evidence suggests that knowing wine is not so simple

◦*Design/methodology/approach* – This paper examines the claim by reviewing research on an individual's ability to comprehend a good, identify its characteristics, and recall them to inform willingness to pay.

◦*Findings* – Evidence from various fields suggests that moving from ignorance to knowing a wine is more complex than the idea of experience goods suggests. The paper discusses why it matters and reviews an alternative market model that may be a better fit for wine and may help explain why knowing wine is more complicated than “experience”. It concludes with a suggestion for empirical testing.

◦*Practical implications* – Overlooking the complexity of knowing wine risks relegating the market to a small group of aficionados plus, primarily, consumers never guided to full appreciation of wine's possibilities.

Key words: Wine, experience good, neuroenology, adverse selection

An Exploratory Study on Intrinsic Cue-Based Quality Perception and Brand Strategies: Evidence from 1988-2018 Wine Ranking Data

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Abstract

◦*Purpose* – This paper attempts to conduct an empirical examination on how intrinsic cue-based perceived quality is related to marketing strategies (e.g., scarcity, age, price) with evidence from 1988-2018 wine ranking data.

◦*Design/methodology/approach* – The regression analyses revealed that robustness of relationships with scarcity and perceived quality along with brand strategies (e.g., Price, age, country-of-origin). The research context of this paper is relevant to refine and advance the scholarship of quality perception because actual multi-year quality ratings by wine experts' blind tastings give opportunities for empirical generalizations beyond controlled lab experiments.

◦*Findings* – Results revealed that scarcity, along with age and price, is positively related to perceived quality. Country-of-origin effects moderate the scarcity effects. Particularly, Italy demonstrated a statistically significant negative effect of scarcity on perceived quality (Std. coefficient = -2.240**). This can be explained by disconfirming Italy's country-of-origin effect. High production quantity (low scarcity) may not be align with historical heritage-driven Italy's country-of-origin effect especially in the domain of wine.

◦*Practical implications* – It is important to understanding scarcity effects and their interactions with brand strategies. Designing types of scarcity and measuring their effects on consumer judgments can open a new avenue for sustainable business and greater well-being.

Key words: Marketing Strategy, Brand Management, Hospitality and Food

The Economy of Wine in Age of Mistrust: The Butler and the Cellar in Victorian England

Graham Harding

Abstract

Though the butler and the cellar are familiar tropes in Victorian novels and short stories, they have been little studied by either social or wine historians. After William Gladstone reduced duties on light wine in 1860, consumption boomed among the British middle and upper classes. French commentators, however, warned of the lack of suitable domestic cellarage and expert cellar-men as a key impediment to market growth in Britain.

In the absence of a professional cellarman, the butler in well-to-do households had a central role in stocking and managing the cellar as well as his duties at table. Guides to cellar management proliferated with advice on storage, bottling and recuperating faulty wines. But butlers also partook in a 'system of plunder' from the cellars and the paper explores the incidence and consequences of this system of perquisites, commonplace infraction and outright criminality.

Key words: butler, cellar, wine, class, servant

INTRODUCTION

In 1860, when Gladstone lowered duties on wine, the French were initially surprised at just how little response there was from the British middle classes. They expected – according to the French trade journal, the *Moniteur Vinicole* – that their first shipments to England would be received with ‘enchantment’. Was it poor quality of product or the difficulty of changing British habits, or, was it the simple lack of cellars in British houses. Without cellars, they reasoned, there would nowhere to store casks of wine, nowhere to bottle wine and no means of keeping the wine in good condition (*Moniteur Vinicole*, 16 September 1860, p. 75).

The *Moniteur* was over-pessimistic about sales. In the following fifteen years sales of French wine more or less trebled. But they were right about cellars and the broader issue of cellar management. The nineteenth-century cellar was a locus of unremitting effort, considerable concern, frequent distrust and constant criminality.

This paper focuses primarily on the domestic economy of wine in the British market and, in particular, the role of the butler who was responsible for the contents of the cellar as well as the management of social events in the household. The position of the butler, as defined by *Queen, the Ladies Newspaper* in 1887, was that of a senior ‘confidential servant’, second only to the steward if the household was grand enough for such a role (*Queen*, 22 October 1887, 526). But the theoretical status of ‘confidential servant’ did not always entail mutual trust between servant and employer. In a rather bitter article written for by a working butler a British magazine in 1892, the author, John Robinson, accepted that the typical male servant was lazy, ill-educated and frequently drunk. Little was demanded of him, little trust was reposed in him and the result was that ‘he argues that he is not trusted, therefore there can be no breach of confidence in taking all he can get’.

1. THE LITERATURE OF THE CELLAR AND SERVANTS

The management of the cellar was arduous and time-consuming and demanded considerable knowledge on the part of the butler and the literature of the day on cellar management and butler’s duties reflected this. Between 1830 and 1900 a series of books and manuals attempted to provide servants with guidance on wines and their treatment in sickness and in health – mostly sickness if these texts are taken to heart. The *Servant’s Guide* (1831) had 20 pages on types of wine and their treatment; the *Practical Man, the Butler, the Wine-dealer and the Private brewer* (1851) had nearly fifty pages on cellars and wines (Anonymous 1831; A Practical Man 1851). As late as 1899, H.L. Feuerheerd’s *Gentleman’s Cellar and Butler’s Guide* had 25 pages covering preparing, preserving, bottling and corking wines, showing that despite the growth in sales of wine in bottle after 1860, the role of the butler and cellarman was still important (Feuerheerd 1899).

Modern secondary literature on the subject is very limited. Most of the works on Victorian domestic service focus more on female than male servants (Todd 2009; Delap et al. 2009; Dussart 2005). Whilst the contemporary biographies edited by John Burnett are enlightening on the lives of both male and female servants, there is little on the cellar duties of the male servants (Burnett 1994). None of the work on wine in nineteenth-century Britain and little on prior periods deals extensively with what I term the ‘domestic economy’ of wine apart from Frances Dolan’s valuable work on women and wine in the early modern period (Dolan 2018).

2. THE CELLAR IN THE BRITISH HOUSE

Although Feuerheerd's work suggests there was still a role for cellars around the turn of the century, these were decreasingly important to domestic life. Flats were displacing houses in central London and, as the wine trade journal, *Ridley's*, put it in 1899, the only space there for wine was the 'homely cupboard' (*Ridley's Wine and Spirit Trade Circular*, no. 623, 12 September 1899, p. 621). However, larger houses in suburban London and regional towns were provided with cellars and the demands of wine storage were an important factor for architects and builders. Robert Kerr's *English Gentleman's House* devoted several pages to the construction and fitting of the wine cellar with specifications on size, placement (towards the centre of house to get 'a moderate and equable temperature' and of easy access from the butler's pantry) and security (Kerr 1871, 243-4). The need for 'proof-locks' and the frequent cases involving purloined keys used to facilitate unauthorised access suggests not simply the Victorian fetish for domestic security but also the store of value represented by cellared wine. The 10' x 7' cellar recommended by Kerr for middle-class London homes could probably hold several thousand bottles (Kerr 1871, 395). That stock – at an average price of 20s per dozen – might have been worth upwards of £250; many times the yearly wage of even a well-remunerated butler who might make £70-100 per annum (Horne 1924, 272). The 12s a week paid to a young cellarman would buy only a dozen bottles of the cheapest claret in the 1860s (*Morning Advertiser*, 19 December 1854, p. 8). Wine was worth stealing and worth protecting.

That stock could come to the cellar direct from the grower, from the London Docks whose vaults acted as a form of wholesale warehouse or from a UK-based wine merchant. Grower-direct supply was rare, particularly post 1860 when prices fell, but in the late 1850s, the London Wine Company put out extensive advertisements to promote the fact that they were 'despatching a gentleman, of very great experience, to the Vineyards of Champagne, Burgundy and the Bordeaux districts, for the purpose of selecting pure wines at moderate prices'. There was a minimum order of a dozen cases at 'guaranteed' savings of 'at least 12s to 15s per dozen on the prices usually charged by retail merchants' (*Hampshire Advertiser*, 5 September 1857, p. 1). If the purchaser wanted a larger volume then they could get an 'order' to sample wine at the London Docks or go to London merchants such as Heneky and Abbott who advertised port in wooden casks of up to a hundred gallons or so with a supplementary bottling service by an 'experienced cellarman' for 3s 6d a gallon, bottles and corks included (*Portsmouth Times*, 21 December 1861, p. 1).

3. BUTLER AND CELLARMAN

In most houses the butler was the cellarman. *Queen* in its 1887 article focused on this element of the butler's role. Before addressing the butler's responsibilities at table and in managing other servants the newspaper set out the nature and extent of the cellar role:

The real duties of the butler are of course, primarily connected with the cellars, the nature and quality of wines and spirits, and the management of the same. He should be fully competent, if called upon to do so, to advise his employer as to the price, quality, quantity and nature of any wine which it is advisable to lay in stock, and should understand the best modes of fining, bottling, corking, and sealing wines, before they go into the bins. (*Queen*, 27 October 1887, p. 526).

The subsequent comment that 'no matter how good it is to start with, or how excellently arranged the cellars may be, it will infallibly deteriorate instead of improving by keeping if it is not properly cared for' sums up the scale of the task.

In the 19th century, wine was inherently fragile. The French wine cellar master of the powerful retailer and caterers Spiers and Pond, L. P. Mouraille summed up the situation in his textbook on the *Practical guide for the treatment and management of wines in English cellars*, 'Wines are liable to contract a multitude of diseases from the day they leave the vat until the time of maturity' (Mouraille 1889, 79). To list these 'diseases' here would be superfluous; the issue was that many butlers simply did not have the skills to deal with them. In Cyrus Redding's harsh 1830 judgement: 'this menial [the butler] is often a footman, elevated to the position he holds from some idle predilection. Nine times out of ten, he knows no more than such a wine is placed in such a bin'. Redding continued with what was to become a common trope in the second half of the century: 'He is frequently better versed in the art of accepting a ten or twenty pound note from the merchant who supplies his master's cellar' (Redding 1839, 8-9).

4. THE 'SYSTEM OF PLUNDER'

Newspapers and journals suggested there was a 'widespread system of plunder' aimed at the wealthy. The 1823 *Footman's Directory* written under the name of Onesimus (the wicked servant whose story is told in St Paul's gospel), reckoned that 'many servants being dishonest themselves, will, when they first go to a place, endeavour to get all the old tradespeople changed, that they may be enabled to carry on with their theft and wickedness without being discovered' (Onesimus 1998, 189). In the estimate of the *London Review* in 1864 (who detailed the 'system')

at least 75 per cent of tradesmen were involved in giving kickbacks to senior servants. In the trial of the Duke of Cavendish's butler in 1854, the sums dishonestly received by the butler from his chosen wine merchant allegedly totalled nearly £700 on a wine bill of £1500 a year ran into hundreds of pounds (*London Review*, 13 February 1864, 163-4). Even if the butler were honest there many other 'perquisites' in the 19th century wine economy – ranging from those accepted as licit to the outright criminal.

The sometimes fraught encounters between master and man were the subject of repeated cartoons in the British humorous magazine, *Punch*. Between 1850 and 1914 at least 18 cartoons show butlers and masters at odds over wine. Such infractions could be serious. In a 1911 cartoon, the master has returned home unexpectedly to find the butler 'entertaining guests'. An empty bottle of champagne is on the mantelpiece and the guests are enjoying the household's port and cigars (*Punch*, 8 November 1911, p. 343). In many cases, the consequence (or cause) is a drunken butler; perhaps he has simply been at the champagne (*Punch*, 13 January 1872, p. 21) or 'putting away the port' (*Punch*, 10 May 1899, p. 222). In another case, he has obeyed the instruction to taste the wines before serving all too literally (*Punch*, 18 March 1903, p. 189). Or, annoying, but barely criminal he has simply 'reserved the best' for the servants' hall (*Punch*, 21 July 1860, p. 21).

It was generally accepted that the remains of unfinished bottles could and should go the servants for their own supper. Not for nothing was the butler in Robert Surtees' novel *Ask Mamma* known named as 'Mr Bottleends' (Surtees and Leech 1858, ch LVI). It was generally accepted that butlers sold on both corks and empty bottles. Standard corks fetched 1d each (*Shields Daily Gazette*, 5 May 1880, p. 2); champagne corks – particularly those of prestigious brands – fetched more as they were 'wanted for the purpose of giving British gooseberry or American petroleum the character of genuine champagne. What better guarantee can the epicure desire than the brand of Giesler or Irroy upon the cork ostentatiously drawn in his presence? Its sight is enough to disarm suspicion' (*Newcastle Courant*, 30 April 1880, p. 6). The price for corks branded with the names of the most famous brands – such as Pommery – could reach 30s a dozen (*Dundee Evening Telegraph*, 1 July 1882, p. 11). Empty bottles were also seen as fair game: "I always consider and shall always consider, empty bottles as my perquisite, and I sells them as such" was the comment of one butler (*The Times*, 17 December 1852, p. 7). However, bottles were less valuable than corks because they were unbranded and their second-hand value diminished after 1850. By the end of the century the going rate was only 6d per dozen. (*Cheltenham Mercury*, 7 May 1880, p. 2). Such perks were accepted; in other cases it was

suggested that a ‘gentleman’ ‘unable to pay his butler his arrears of wages, [might] connive at him pillaging the wine cellar’ (*The Times*, 16 September 1869, p. 7). However, outright theft there certainly was – with scores of cases in the newspapers between 1850 and 1900.

There were many opportunities for ‘peculations’ (as the *London Review* called them). The journal pointed to the abstraction of bottles from the cellar for personal use and the consequences of this practice. Citing the evidence of both Dr Druitt (the medical officer for the London district of Mayfair) and the ‘statistics of the Westminster hospitals’, they claimed that ‘almost to a man, their constitutions are rotten and worthless from the constant habit of tippling’. Eric Horne’s late nineteenth-century autobiography recounts the butler’s ‘delight in besting a mistrustful Bos’ (sic). Even if the butler did not have the keys to unlock the cellar it was no trouble for him to fetch the required bottle(s) – plus another secreted in his coat pocket for his own use (Horne 1924, 7). In general, however, the butler was trusted to hold the cellar keys (and the keys to the safe for household silver plate). With the keys and manipulation of the cellar book much could be dishonestly achieved. The impression given by books and newspapers was that the servant class were partial to the contents of the cellar. Horne claimed the first question when servants met was “Going to have a tonic?” (Horne 1924, 95). Some butlers were willing to provide wine for servants and their ‘followers’; others simply mislaid the keys or failed to lock the cellar door.

It was not only the butler who enjoyed – or purloined – wine. In 1876, a cook treated her male ‘follower’ to champagne having taken the key from her master’s bedroom. It ‘fizzed up like lemonade’, she reported, and ‘tasted something like the same’ (*Dundee Courier*, 18 May 1876, p. 4). In a rather more serious case, the cellar door was chiselled open and some £40 of wine was stolen after a dinner hosted by a ‘servant girl’ for her friends with magnums of champagne (*Hull Packet*, 4 July 1874, p. 3). Though it is hard to be certain about how common such thefts were, they made for newsworthy cases and would have fostered the Victorian climate of suspicion over the conduct of servants – and the Victorian mania for locks and domestic security (see Smith 2012, 264). However, as the Victorian safe-maker, George Chubb noted in his book *Protection from fire and thieves*, gentlemen must be careful have trustworthy servants or all other precautions are unavailing’ (Chubb 1875, 16).

Here was the problem for the Victorian householder. Servants – at a certain level of income – were essential to the management of the household. Even before legal restrictions on servants moving between households were eased in the 1870s, there were thousands of agencies that

facilitated moves (Todd 2009, 196). As household wealth increased in the second half of the century, the newly prosperous middle class sought domestic support. Much of this support was female; women outnumbered men in indoor service by between 20:1 and 30:1 by the end of the century (Dussart 2005, 41-2). Indoor male servants were hard to find and employers – despite reservations about conduct – seem to have been willing to accept the (relatively) minor peculations depicted in the *Punch* cartoons.

CONCLUSION

In the Victorian age, wine was so fragile that it required the attention of servants and other service providers to prepare and bottle, to store and maintain in acceptable condition and then to serve at table. Shop-bought bottled wine only finally replaced home-bottling in the twentieth century. Particularly in bottled form, wine represented an easily portable store of significant value that could easily be re-sold. It was also subject to fraud. Only after 1900, did complaints of fraudulent champagne bearing counterfeit labels and recycled corks fade away. Until that time branded champagne corks held a significant value to those such as butlers and club waiters who could easily collect and re-sell them. Increasingly waiters were forced to account for corks; butlers rarely faced such constraints.

Modern technology has removed the need for services that the nineteenth-century butler performed. The dramatic post-World War One decline in servant numbers has impelled the vast majority of consumers to rely on their own judgements. But intermediaries – be they sommeliers, retail counter staff, wine journalists – still play a major role in the choice and purchase of wines. In our present analysis of the wine business we would do well to consider the continuing role of these intimate intermediaries as well as that of the restaurants they serve, the shops for whom they work or the media outlets they supply.

Perhaps of more significance in the longer term was the impact on the development of wine branding. Although the British wine trade resisted the switch in emphasis to producer-branded wine, consumers' unwillingness to fully trust intermediaries such as merchants (and butlers) meant that bottled products whose quality was guaranteed by producer branding of corks and, to a lesser extent, labels became more and more important. One might argue that brands disintermediated butlers.

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Choosing the Ideal Wine and Cheese Associations: A Comparison between Experts and Consumers in France

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Abstract

◦*Purpose* – This study evaluates the ideal associations between wine and cheese with an audience of experts and consumers in a French cultural context. The objectives are twofold: first to compare the sensory interactions between wines and cheeses for experts and consumers; second to understand why experts and consumers choose the ideal associations, using both qualitative and quantitative studies.

◦*Design/methodology/approach* – We carried out two studies, Study 1 and Study 2. Study 1 is a wine & cheese tasting with seventeen experts. Study 2 is a consumer tasting with sixty people.

◦*Findings* – We compare experts and consumers on two criteria: (1) for sensory preferences, the evaluations between experts and consumers for ideal wine & cheese associations are globally similar at 77% level. However, the preference for the three best wine & cheese associations are different, with one exception. For these last ones, experts do not set up exactly research findings as consumers do. (2) Experts use an analytical learning process based on rational prototypes of information and technical language and vocabulary. Consumers develop an hedonic learning based on images and narrative description.

◦*Practical implications* – Wineries can propose a cheese platter with a series of wine, and pair them according the balance between sweetness of wine and salt of cheese, and fatness of cheese and acidity of wine.

Key words: ideal wine and cheese associations, expert, consumer, sensory interaction, language

1. INTRODUCTION

The ideal wine and cheese associations have been studied in several different contexts, whether in Australia (Bastian *et al.*, 2009), Canada (Harrington *et al.*, 2010, King and Cliff 2005), or in France in the region of Burgundy (Galmarini *et al.*, 2016, 2017). Most of this research test several cheese with several wines (red or white) only on the consumer target. The only study that compares experts and consumers is that of (Bastian *et al.*, 2009). Their results show that the consumers agreed with the experts on 75% of the ‘ideal’ pairings of eight different cheese and wine (white, red, sparkling) styles. In our research, we will study the ideal wine/cheese associations by focusing only on white wine.

Joint tasting of wine and cheese involves multiple sensory interactions. Pairing wine and cheese is very complex and need a multisensory analysis to have the perfect match in terms of flavors. Indeed, the flavor of the cheese could hide the wine. If the cheese is strong in terms of tasting, the acidity of wine can balanced the taste of the association with the integration of multisensory interactions (Piqueras-Fiszman and Spence, 2016) perceived as congruent. Therefore, this integration develops a more positive liking (Prescot, 2016).

In the end, the comparison of the choice of ideal wine and cheese associations between experts and consumers has not been compared yet in tasting session, with the exception of (Bastian *et al.*, 2009) in an Australian context. In addition, to our knowledge, no research has implemented both quantitative & qualitative studies to explain the complex reasons for the choice of ideal associations by experts vs consumers.

The objectives of our study are then twofold:

- (1) to evaluate the ideal associations between (French) dry white wine and (French) cheese in a French context with an audience of experts AND consumers;
- (2) to compare the choice of these ideal associations for experts vs consumers on different criteria.

2. THEORETICAL BACKGROUND

2.1. Ideal Match between Wine & Cheese

In some cases, the taste of certain wines can alter the taste of cheese, and vice versa. Several researchers, and in particular (Morten *et al.*, 2014), have highlighted research findings to be respected in wine/cheese associations.

King and Cliff (2005) and Bastian *et al* (2009) analyzed the wine/cheese combinations using an ideal matching scale between cheese domination and wine domination: the ideal match is between this two dominations. For Bastian *et al.* (2009), Brie dominates some wines (sparkling wine, Sauvignon blanc, Chardonnay, Gewürztraminer) more than Goat, Gruyere or Chaource. According to King and Cliff (2005), white wines (Sauvignon Blanc, Chardonnay, Pinot Gris, Gewurztraminer, and Riesling) have a standard deviation less than the average compared to red wines (Pinot Noir, Merlot, Meritage, and Foch). In any case, the cheese with the most powerful taste is difficult to associate with a wine, whether red or white. For Koone *et al.* (2014), when you get a good balance between a wine and a cheese, consumers implicitly appreciate this association. Thus Sauvignon goes perfectly with goat cheese and Brie. These ideal agreements can be explained by the level of acidity of the wine and the percentage of fat in Brie. According

to Harrington and Hammond (2005), the sweetness of a wine contrasts with the saltiness of the cheese. The sweetness of the wine and cheese can also balance the acidity of wine and the salty taste of cheese especially in the case of Roquefort (Nygren *et al.* 2003; Galmarini *et al.* 2016). For Sela *et al.* (2009), “choosing from assortments of food products often shifts choice from vices to virtues (salty as a vice and sweetness as a virtue). Biswas & al. (2014) demonstrate that the level of similarity (vs dissimilarity) between the sensory cues of the products influence choices.

Another criterion must be taken into account in the evaluation of a wine and cheese association: the order of presentation. When consumers are sampled with a sequence of sensory-rich experiential products (wine, cheese, chocolate, fragrances), there are two cases: (1) if these products have similar sensory cues (e.g., smell, taste, color), consumers prefer the first product in the sequence; (2) conversely dissimilar sensory cues, consumers prefer the second product.

The order in which wine and cheese are tasted, affects the evaluation of products in terms of discriminating sensory evaluation (Nygren *et al.*, 2017). For example, the intensity of a wine's aroma and acidity decreases after tasting the cheese, which shows the crucial role of sequential sensory indices in the evaluation of a hedonic product. In addition, the duration of the wine sensations is modified after the cheese tasting (Galmarini *et al.*, 2017). As a result, the sensory evaluation of wine decreases more during a tasting of mixed products than during a sequential tasting (Nygren *et al.*, 2017).

2.2. Ideal Match between Wine & Cheese: differences between Experts vs Consumers

The academic literature distinguishes between the sensory preferences of experts and those of consumers. According to (Barton *et al.* 2020), the tasting of white wines by different panelists (experienced, trained, consumers and experts) show [that](#) the experts' results were significantly different from the other participants. According to Koone *et al.* (2014), “food and wine expertise also significantly impacted the level of match, indicating differences between the more expert and non-expert participants in the role wine sweetness, acidity, and tannin had on level of match”. As a result, the sensory preferences of experts in terms of the ideal wine/cheese combination may differ from those of consumers. Harrington and Seo (2015) assessed the impact of the liking level of specific wines and foods on wine–food match perceptions. They showed that this relationship depends on the knowledge of wine and food of the interviewees, as well as their involvement. This relationship could be applied to the choice of the ideal wine and cheese association, opposing experts and consumers. Nevertheless, Bastian *et al.* (2009) showed that consumers agreed with the experts about six of the eight wine & cheese combinations.

Overall, the two types of research mentioned above may appear contradictory. Therefore, in our study, we evaluate whether the sensory preferences of experts in terms of the ideal wine and cheese association are similar to those of consumers.

Wine experts (oenologists, producers, specialised critics) have developed a specific language to describe the sensory properties of wine (Brochet and Dubourdieu, 2001). According to (White *et al.*, 2020), language can affect human chemosensory perception and responses to food

flavours; language and memory of prior experiences with a food affect food acceptability and preferences. Specifically, the identification of smells, tastes, and texture are acquired through learning.

According to Alba and Hutchinson (1987), for beverage tasting, analytic processing is associated with experts, while holistic processing is associated with novices. For LaTour, Deighton (2019), an expert is characterized by two points: (a) an analytical processing; (b) the adoption of a lexicon or a consumption vocabulary to decompose a stimulus. According to (LaTour and LaTour, 2010), the main differences between experts and novice consumers differs on two types of knowledge: experts have a high level in both perceptual knowledge (usage frequency) and conceptual knowledge (general knowledge of the product category), whereas novice are low at both levels. The experts use more vocabulary than visual imagery (LaTour and Deighton 2019) to describe holistically the tasting. In contrast, consumers will use a more intuitive rather than rational approach (Snell et al., 1995), and a more visual imagery (LaTour and Deighton, 2019).

3. METHODOLOGY

3.1. Study 1 (Expert)

Sample

Study 1 in July 2019 gathered seventeen experts in the oenology laboratory of a French Business School. These experts follow a 13-month course in wine, and spend 70% of their time in a company from the wine sector. 80% of these students will be hired by their wine company following their paid traineeship: these students are therefore already semi-professionals. They have taken about 100 hours of training in oenology. These seventeen experts come from a sample of convenience, with the following characteristics: 66% male, 41% under 26 years of age, 35% live in Paris, 35% in the southwest, and 30% in Brittany and Savoy.

These students can be considered experts according to the literature review, as they are: (a) semi-professionals (Bastian et al., 2009; Melcher and Schooler, 1996); (b) they have both a conceptual knowledge and a perceptual knowledge (LaTour and LaTour, 2010); (c) their Master's degree in wine is one of recognized in France (LaTour and Deighton, 2019).

Stimuli

Nine white wines have been selected from the Sauvignon Blanc, Chardonnay and Semillon grape varieties (see Appendix 1). We selected only white wines (Sauvignon Blanc, Chardonnay, and Sémillon). White wines were selected for three reasons: first they have a standard deviation less than the average compared to red wines (King and Cliff, 2005) ; second because it is the recommendation of wine's professionals (www.thewinesociety.com/pairing-cheese-and-wine) ; third, Sauvignon Blanc and Chardonnay are the most harvested in France and have been tested in several research experiments to determine the ideal combinations between wine and cheese (Bastian *et al.*, 2009; Koone *et al.*, 2014). These wines were presented blindly. The characteristics of the nine wines (% alcohol, acidity, glucose, grape varieties) were analyzed through an independent oenology laboratory in Bordeaux.

Five cheeses have been selected: Goat, Camembert, Brie, Raclette, Blue (see Appendix 2). There is a difference in terms of milk (cow versus goat). All the cheeses were quite young (less than 10 weeks). These cheeses were easily recognizable by their visual aspects. The nutritional characteristics from the cheese were given by cheese producers.

Tasting design and data elaboration

At first, the experts tasted the nine wines successively. These were identified by numbers. After evaluating their sensory characteristics and giving them a preference score (from 1 I hate it to 9 I love it), they rejected the three lowest rated wines, to retain six wines in the end. During the tastings, experts could eat bread and drink water to clean their palates.

In a second step, the experts evaluated the six wines chosen and the five cheeses. These associations were evaluated on the following scale (Bastian *et al.*, 2009):

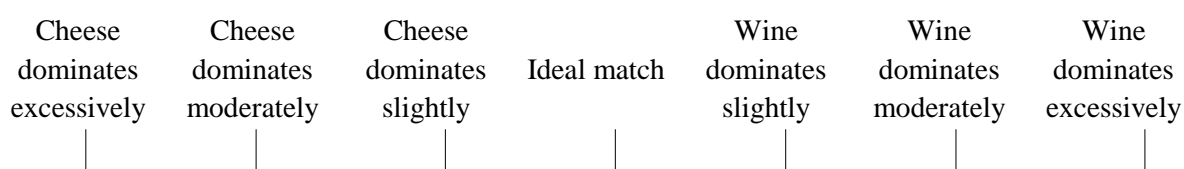


Figure 1: Ideal association scale

In a third step, the experts chose the three best wine/cheese combinations, and explained why. In addition, a qualitative phase was implemented. The seventeen experts expressed through open-ended questions the choice of their associations. We use content analysis to define sensory descriptions of the association chosen. We use multiple correspondence analysis to represent graphically the sensory lexicon described the association of these wine and cheese selected (Benzecri and Benzecri 1980).

3.2. Study 2 (Consumer)

Study 2 in February 2020 gathered sixty consumers in four sessions (see Appendix 5). There is no effect of the tasting session on the choice of the association (chi-deux 12.359 p=0.976). The sample is 56.7% female. It includes 21.5% under the age of 30, 38.3% between 31 and 40, and 19.1% between 41 and 50.

In the first step, consumers evaluated the nine wine & cheese pairing with the scale of Bastian & al. (2009). Then they choose the three best associations. In a second step, consumers explained through qualitative studies why they choosed the ideal association. We use content analysis to describe their ideal association by sensory descriptors. Multiple correspondence is used to positioning wine, cheese and sensory lexicon.

4. RESULTS

4.1 Choice of ideal wine and cheese associations: similarities between experts vs consumers

The evaluations between experts and consumers for ideal wine & cheese associations are globally similar. Labouré roi is a chardonnay from AOC Bourgogne Côtes de Nuit 2017 ; Moulin de l' Œuvre is a chardonnay from AOC Mâcon-Uchizy ; Château les Maudioux is a semillon from AOC Bergerac 2018.

Table 1: Evaluation of the wine & cheese associations: experts vs consumers

	Expert	Consumer
Labouré roi/blue	3,78	2,44
Labouré roi/brie	3,85	3,92
Labouré roi/Goat	3,82	4,31
Moulin de l'œuvre/blue	3,57	3,18
Moulin de l'œuvre/brie	4,30	4,78
Moulin de l'œuvre/goat	4,00	5,15
Château les Maudioux/blue	3,50	3,50
Château les Maudioux/brie	4,50	4,68
Château les Maudioux/goat	4,14	5,08
Total	3,93	4,11

For the consumers, wine dominates in most of association except for Labouré roi/blue and Moulin de l'Œuvre/blue and especially when you associate the brie and the goat with Moulin de l'Œuvre and château les Maudioux. Concerning the brie, it is the same for the experts. For them, Blue cheese matches more with all the wine and Labouré roi matches more with all the cheese. Château les Maudioux/blue is the best match for both of them.

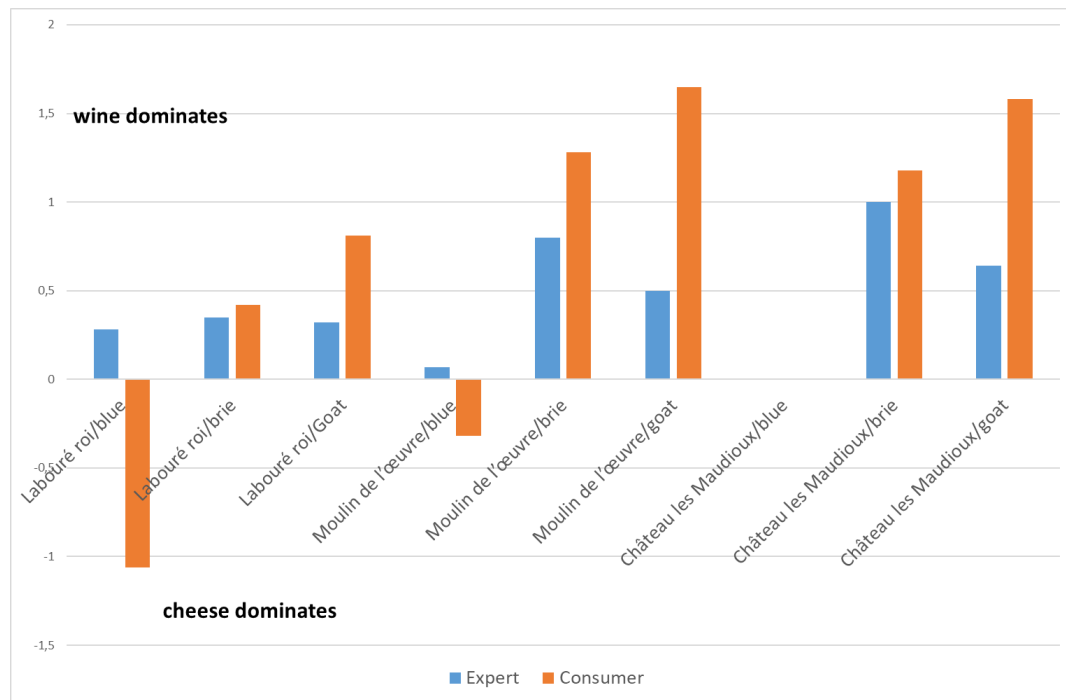


Figure 2: Wine & cheese ideal associations: domination of wine vs domination of cheese for experts and consumers.

When you compare experts and consumers, there are only two associations Labouré Roi-blue (KW 122,066, $p=0,047$) and Moulin de l'Œuvre-goat (KW -127,404, $p=0,039$) that have different evaluations, as show in the figure below. These association Labouré Blue cheese and Moulin Goat cheese match more for the experts than the consumers. Globally, there are no differences for 77% of the associations between experts and consumers.

4.2. Preference for the three best associations

In terms of Preference for the three best associations, experts and consumers do not associate the same wine & cheese associations, with the exception of Les Miaudoux/Blue. The association “Les Miaudoux/Blue” is the first association chosen by consumers, and the third association for experts.

Table 3: Choice of the three best associations for experts vs consumers

Associations between wine & cheese experts	Associations between wine & cheese consumers
“Labouré-Roi” (AOC Burgundy) (acidity+, sweetness-) / Brie (fat+, salt-)	“Château Les Miaudoux” (AOC Bergerac) (acidity-, sweetness-) / Blue (fat+, salt+)
“Le Moulin de l'Œuvre” (acidity-, sweetness+) (AOC Macon-Uchizy)/ Goat (fat-, salt-)	Labouré-Roi (acidity+, sweetness-)/ Goat (fat-, salt-)
“Château Les Miaudoux” (AOC Bergerac) (acidity-, sweetness-) / Blue (fat+, salt+)	Moulin de l'Œuvre Macon-Uchizy (acidity-/sweet+) /Blue (fat+, salt+)

The characteristics of the nine wines and the nutritional characteristics of cheeses are detailed in Appendix 1 and 2. The table below highlights the characteristics of the three best wine & cheese associations for experts and consumers.

4.2.1. Why the experts choose these associations

We take a closer look at the experts' results based on their choice of the three best associations. There is no effect of gender (Kruskall and Wallis 0.372; $P=0.542$) or age (Kruskall and Wallis 0.01, $p=0.921$), or place of residence (Kruskall and Wallis 0.935; $P=0.627$) on the evaluation of associations. On the other hand there is an effect of the associations' type on associations evaluation (Kruskall and Wallis 67.036; $p=0.012$). Now, we analyze what words they use to explain their choice (see appendix 3).

For blue, “Château Les Miaudoux” (33% of those who selected blue) was the most chosen. For the Brie, it is the “Labouré-Roi” (41.7% of those who selected the Brie). Finally, for the goat, it is the “Moulin de l’Œuvre” (33.3% of those who selected the goat). We implemented a correspondence analysis involving wines, cheeses and sensory lexicon.

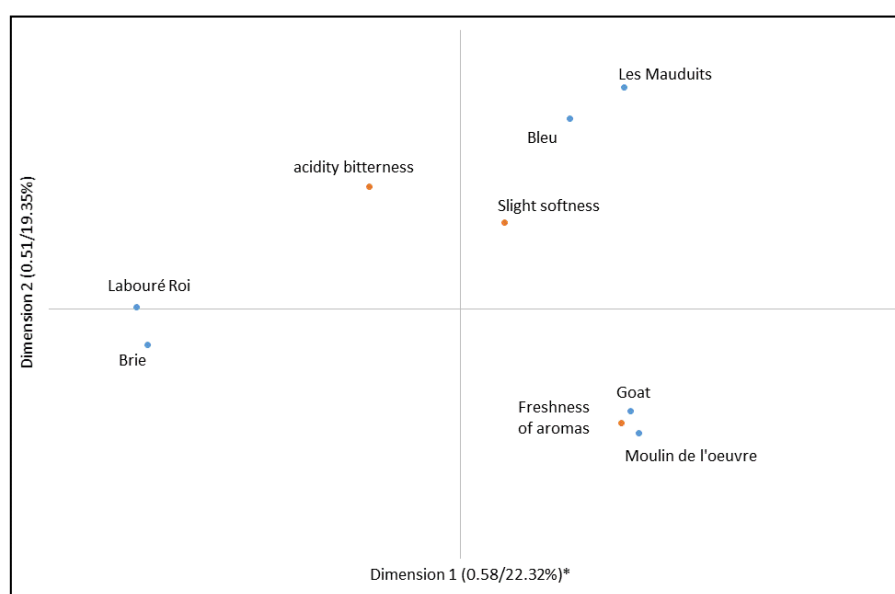


Figure 3: Correspondence analysis with wine, cheese and sensory lexicon

* 0.58 represents eigen value of the first axis and 22.32 represent variance explained

The two axes represent the positioning of cheeses and wines and the choices in terms of sensory evaluations. They account for 42% of the variance. We have three associations (“Le Moulin de l’Œuvre”/Goat, “Les Miaudoux”/Blue, and “Labouré-Roi”/Brie). The first one is associated with the freshness of aroma and the second one with slight softness. The acidity bitterness could be associated to the associations (“Les Miaudoux”/Blue and “Labouré-Roi”/Brie).

4.2.2 Why the consumers choose these associations

The three best associations are “ les Miaudoux/Blue, Labouré Roi/Goat, and Moulin de l'Œuvre/Blue. There is no effect of gender (Kruskall and Wallis 0.292; $P=0.407$) or age (Kruskall and Wallis 4.426, $p=0.219$) on the evaluation of associations. On the other hand there is an effect of the associations' type on associations evaluation (Kruskall and Wallis 41.737; $p=0.000$). Now, we analyze what words they use to explain their choice. The table in appendix 4 presents the verbatims and lexicon that are most specific to the most selected associations. The association “Les Miaudoux”/Blue is the most selected for 25% of the sample, the “Labouré roi”/Goat for 15%, and the “Moulin de l'Œuvre” /Blue for 11.7%, the “Labouré roi”/Brie for 10% and the “Moulin de l'Œuvre”/Brie for 10% of the sample.

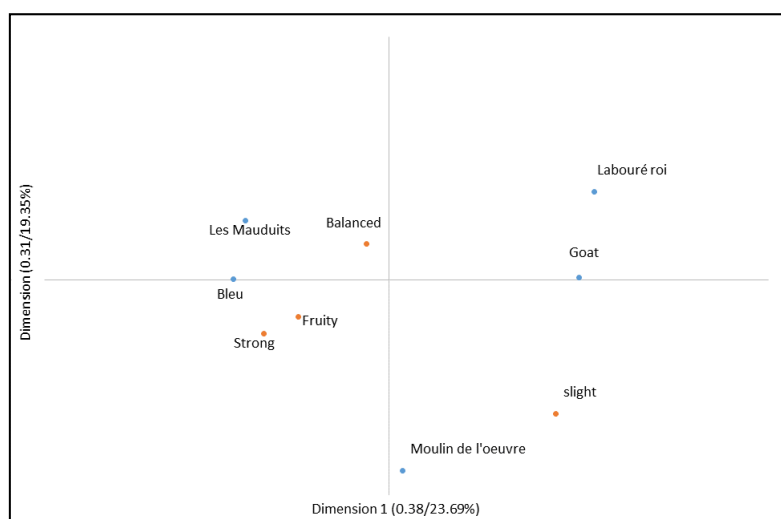


Figure 4: Correspondence analysis with wine, cheese and sensory lexicon

The two axes represent the positioning of cheeses and wines and the choices in terms of sensory evaluations. They account for 43% of the information. Positioning Brie degrades the representation of the positioning map. It appears that we have a group around the wine “Les Miaudoux” and the blue, which are strongly associated with a strong and fruity taste, allowing a balance between the two. The goat is associated with the “Labouré-Roi” by its light character. The “Moulin de l'Œuvre” is a compromise between the two other wines.

5. GENERAL DISCUSSION

Globally, there are no differences for 77% of the associations' evaluations between experts and consumers. This confirms the findings of (Bastian *et al.*, 2009) in an Australian context, that 75% of the ideal associations chosen by experts and consumers are similar. However, the preference for the three best wine & cheese associations are different, with the exception of les Miaudoux/Blue.

Concerning the level of fat for the cheese in comparison with the level of acidity for the wine (Koone *et al.*, 2014), the expert equilibrate the high (low) level of fat by the high (low) level of acidity, except for the association Chateau les Miaudoux – Blue ; for the consumers' perspective, they don't equilibrate the level of fatness and the level of sweetness. Concerning the level of sweetness for the wine and the saltiness for the cheese (Koone *et al.*, 2014,

Harrington and Hammond 2005), the high (low) level of sweetness is equilibrate by the low (high) level of saltiness except for Labouré roi Brie for the experts. The consumers don't verify this rule except for the association Château les Miaudoux Blue.

As Barton *et al.* (2020), we verify that consumers don't prefer the same association and don't have the same sensory evaluation in terms of how associate acidity and fatness and sweetness and saltiness. Most of research associate the experts to evaluate the association wine and cheese and our experts respect the two rules for two chosen association. They balance the fatness of the cheese with the acidity of the wine while sweetness of the wine dominates the saltiness of the cheese. On the other hand, consumers don't use these rules. The sweetness compensate or contrast the saltiness of the cheese and it is the same for fatness and acidity. It seems that the sensory evaluation of chosen association defines a vice and virtue logic (Sela et al. 2009). Fatness (sweetness) represents the vice and acidity (saltiness) the virtue. They search the contrast because we have one sense that dominate the other sense (Krishna, 2012) and it is confirmed by Nygren *et al.* (2017) in the case of tasting wine with cheese.

Experts, in our research, use a detailed and technical vocabulary and an analytical processing. These results confirm the definition of "expert" in two points by (LaTour and Deighton, 2019). Indeed, it is normal that expert uses more elaborate words like "freshness of aroma", "acidity/bitterness", whereas consumer prefer the term "fruity" (Alba and Hutchinson 1987). The experts show the ability to match language with perceptual experience by an analytical approach that relies semantically cheese with wine (Labroo *et al.*, 2010). The experts have conceptual knowledge organized around prototypes of information and detect fault when they taste (Brochet and Dubourdieu, 2001, Honoré-Chedozeau *et al.* 2017) even more they make tasting script when they don't have any information concerning the wine (Honoré-Chedozeau *et al.* 2017).

On the other hand, consumers can use more simple image or representations ("fruity") to explain their choice in holistic manner (LaTour and Deighton, 2019). Consumers develop a narrative approach. This approach reveals some representations ("good, strong") of what they experienced, because they need to taste and discover wine and cheese associations on perceptual orientation (Honoré-Chedozeau *et al.* 2017). Consumers live an experience as a narrative event (*ibid.*).

The difference between experts and consumers in terms of language is confirmed by Barton *et al.* 2020 and also the description and the positioning of wine and cheese on the perceptual map. First, they associate the same wine with the same cheese: Château les Maudioux with blue cheese and goat with moulin de l'Œuvre. It is not the case for Labouré roi associated with brie for the expert sample and with goat for consumer sample. Concerning the positioning, the association La Maudioux/ blue is the opposite of the others associations for the consumers and for the experts this association share some words with Moulin de l'Oeuvre goat but not in the same cell. Moreover, the difference is more focused on the association wine and cheese. Indeed, the association Moulin de l'Œuvre is described by freshness of aroma (conceptual word) for the expert sample and with slight for consumer sample. Moreover, The association Les

Maudioux blue is depicted by the experts as slight softness and acidity bitterness (conceptual word) whereas for the consumers, we have more concrete words (balanced, fruity and strong).

6. CONTRIBUTIONS AND CONCLUSION

Our objective was to evaluate the ideal associations between (French) dry white wine and (French) cheese in a French context, and to compare the choice of these ideal associations for experts vs consumers on two criteria. Our theoretical and managerial contributions are the following.

Our *main theoretical contribution* is to compare experts and consumers in their choice of the ideal wine and cheese association, using both qualitative and quantitative studies. To our knowledge, this has not been done in previous research on the two targets, and in terms of methodology. Two criteria were highlighted: (1) Sensory Preferences; (2) Language and vocabulary.

In a French context, experts and consumers do identify the same ideal wine and cheese associations at 77% level. We managed to underline which sensory cues dominate (wine vs cheese), and if there is a balance between the two sensory cues.

However, the preference for the three best wine & cheese associations are different (with one exception). Our results are based on a scientific analysis of nutritional characteristics (appendix 1 and 2): wines are analyzed according to at least two criteria (acidity +/-), (sweetness +/-), as for cheeses (fat +/-), (salt +/-). For these last ones, experts do not set up exactly research findings as consumer do.

In addition, experts do not use the same language & vocabulary for the choice of ideal wine and cheese associations vs consumers. Experts use an analytical learning based on rational prototypes of information (i.e. conceptual knowledge) and technical language and vocabulary. Consumers develop an hedonic learning based on images and narrative description.

On a *managerial level*, the operational use of our wine-cheese pairs increases the pleasure of a wine tasting on a winery. First, wineries can propose a cheese platter with a series of wine, and pair them according to the research findings we studied. If we have a wine with strong acidity and less sweetness, we counterbalance the wine tasting by a cheese with high level of fat and low level of salt. On the other hand, if you have a wine sweet and low acidity, you can choose cheese with low level of fat and salt. If we have only a low acid wine, we counterbalance by a high level of fat and salt.

Second, our recommendation is addressed to French wineries, and by extension, to wineries from all over the world where the first criterion for associating wine and cheese is the valorization of the origin. These French wineries highly value their terroir. They very often combine a wine from their own region with a cheese from the same region. This is the case, for example, in the south-west of France, between the AOP Jurançon wine (sweet +, acidity +) and the AOP Ossau-Iraty sheep cheese (fat+, salt+). However, these associations are not ideal. Ideal associations between wine and cheese could apply research findings. Based on the analysis of

the characteristics of their own wines (acidity, glucose, etc.), wineries can propose to associate cheeses with complementary characteristics (fat, salt, glucose).

Our experts, coming from the same Master specialized in wine, have a homogenous level of expertise as far as wine tasting is concerned. However, we have not evaluated their level of cheese tasting, which could be a limitation. To have the same level of expertise, we could choose experts in gastronomy or culinary area. A second limitation is that it does not explicitly take into account the length in the mouth between wines (vs. cheeses), highlighted via the concept of "Temporal Dominance Sensation" (Galmarini *et al.*, 2017). This specific analysis could be conducted at a later stage.

This research was conducted in a French context on experts and consumers. It would therefore be interesting to compare this French consumer study to that of a nearby European country such as Germany or Austria. This research perspective will enable us to potentially highlight the cultural factor in the evaluation of the wine-cheese association (Allen *et al.*, 2008). We could compare the ideal associations in France (French wines and French cheeses) with the associations in Germany (German wines with the same grapes varieties as the wines offered in France, and French cheese), to also highlight the cultural factor.

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APPENDIXES

Appendix 1: Characteristics of the nine wines and their grape varieties

	Alcohol % vol	Glucose	Acidity total g/l H2SO4	Grape varieties
Château Les Miaudoux Bergerac blanc sec 2018	13.12	0.45	3.37	Sémillon
Le Moulin de l'Œuvre Macon-Uchizy 2017	12.96	2.15	3.32	Chardonnay
Labouré-Roi Bourgogne Hautes-Côtes de Nuits 2017	12.61	0.64	3.67	Chardonnay
Château Cantelaudette Cuvée Prestige Graves de Vayres blanc sec 2017	13.03	0.85	3.68	Sémillon
Château Landereau Entre-Deux-Mers 2018	12.98	0.59	3	Sémillon
Domaine de la Girardièrre Touraine 2015	13.79	1.6	3.78	Sauvignon blanc
Domaine Fichet Château London Macon-Igé 2017	13.08	2.23	3.56	Chardonnay
Domaine des Corbillères Touraine 2017	13.25	1.97	4.13	Sauvignon blanc
Gérard Bigonneau Reuilly 2017	13.29	0.51	3.38	Sauvignon blanc

Appendix 2: Nutritional characteristics of cheeses

	Fat	Salt	Glucose	Proteins
Brie	30	1.3	1	17
Goat	13	1	2.6	8.7
Blue	33	2.2	0.5	16
Camembert	21	1.4	1	20
Raclette	26	1.7	0.5	23

Appendix 3: The three best wine/cheese ideal associations for experts

Associations between wine & cheese	Qualifiers given for wine/cheese associations	Verbatims
“Labouré-Roi” (AOC Burgundy) / Brie	Freshness of aromas Fat and strong Slight softness	The contrast is pleasant. The dominance of the wine at the end is very appreciable although the Brie also persists and makes the length last.
“Le Moulin de l'Œuvre” (AOC Macon-Uchizy)/ Goat	Freshness of aromas Balanced Acidity bitterness Fat and strong	Balance between the freshness of the goat and the fat/roundness of the wine
“Château Les Miaudoux” (AOC Bergerac) / Blue	Balanced Slight softness Fat and strong	We distinguish between the two components of the agreement. Nevertheless, the acidity of the wine makes the blue lighter.

Appendix 4: Consumers: most selected verbatims for wine and cheese associations

Associations	Lexicon	Verbatims
“Les Miaudoux”/ Blue	Strong balance good fruity	Good balance between the two products. The fruity taste of the wine alters the bitter taste of the blue.
“Labouré roi”/ Goat	Complements itself well strong	Combined with goat cheese, which is also sweet in the mouth, the two complement each other well, without annihilating the taste of the other.
“Moulin de l'Œuvre”/ Blue	Strong light complements itself well fruity	Weak cheeses (Brie, goat) mix with the taste of the wine, especially when it is light.

Appendix 5: Wine and Cheese tasting for consumers (February 2020, before Covid-19)



Signaling Sparkling Quality: The Case of German Winzersekt

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Abstract

- *Purpose* – This study aims to find differences among consumers regarding the quality perception of different sparkling wine types. The objective is to evaluate the brand potential of “Winzersekt”.
- *Design / methodology / approach* – The study is based on a between-subject online experiment. Each participant is allotted to one of the sparkling wine types (“Winzersekt”, “Sekt”, “Secco”) and states the expected quality for it. The hypotheses are tested with ANOVA and ANCOVA.
- *Findings* – The expected quality of “Winzersekt” is significantly higher than for the other two groups. Regardless of the level of wine involvement, the “Winzersekt” rates significantly higher than “Sekt” or “Secco”.
- *Practical implications* – In order to differentiate winegrowers’ sparkling wine from other sparkling wines and other methods, winegrowers should call their products “Winzersekt”. A national brand could signal the higher quality; consumers could easily find the winegrowers’ sparkling wines in the wide choice of sparkling wines in Germany.

Key words: Germany, sparkling wine, brand

1. INTRODUCTION

In the last few years, sales of sparkling wine in Germany have fallen continuously, reaching 2.8 million hectoliters in 2018 (Rückrich, 2019). In 2017 an average of 3.5 liters of sparkling wine per person were consumed in Germany while in 2012, sparkling wine consumption was still 4.2 liters per person (Deutsches Weininstitut GmbH, 2018). Nevertheless, Germany is the country with the highest consumption of sparkling wine after France (Fischer, 2018). Furthermore, Szolnoki (2019) found that 34% of respondents consume sparkling wine at least once a month. Sparkling wine is also interesting for the government: The sparkling wine tax, which is 1.02 € per 0.75 liter bottle (Generalzolldirektion, n.d.), revenues of 377.73 million € were recorded in 2018 (Statista GmbH, 2019). The sparkling wine tax only applies from a pressure of 3 bar (Steidl, 2013). With the price of champagne continuing to rise, a new market is opening up for high-quality German sparkling wines (Schön, 2018). Many German winegrowers achieve with their sparkling wines the same quality as champagnes, above all by the same manufacturing process, the classical bottle fermentation (Steve Charters & Spielmann, 2014).

There is a large number of sparkling wines in Germany, which are very difficult to distinguish. Small sparkling wine cellars or wineries specializing in the elaborate production of sparkling wines compete with industrially produced products. How can small, artisan producers differentiate themselves from these industrial sectors? This study tests an approach: A brand for sparkling wines from "real" wineries, namely *Winzersekt*, a combination of the German words "Winzer" (winegrower) and "Sekt" (sparkling wine).

According to Proschwitz & Hanf (2015), branding is becoming increasingly important in the wine industry. Often there is no clear distinction for consumers between industrially produced sparkling wine and winegrowers' sparkling wine; brands need to provide orientation (Hoffmann, 2010). In order to differentiate products in this competitive market, brands build an image in the minds of consumers (Proschwitz & Hanf, 2015).

The following study refers to the German wine market. For this study, a lot of literature is based on wine in general. However, these insights mostly apply to sparkling wine since sparkling wine can be seen as another form of wine.

2. LITERATURE REVIEW AND PROBLEM STUDIED

2.1 Sparkling wine – a short recap

In order to be allowed to use the term classical bottle fermentation, the sparkling wine has to be produced in a second fermentation in its own bottle, which is why each bottle is unique (Schmidt, 2014). The wine must be stored on the yeast for at least nine months without interruption before the yeast is separated by vibration and disgorging (Bach, Troost, & Rhein, 2010). Another process similar to the classical bottle fermentation is the transfer method. However, the sparkling wine does not remain in the bottle after fermentation, but is pumped under counter-pressure into a collection container, where the yeast is filtered and the shipping liqueur is added (Schmidt, 2014). The lees must be stored for at least 90 days and the total production time must not be less than nine months (Wipfler, 2017). In addition, sparkling wine may also be produced by tank fermentation. In this process, the second fermentation takes place in a pressure tank in which the sparkling wines mature until they are filtered, degummed and bottled (Steidl, 2013). In sparkling wine production, either a second fermentation is introduced in a pressure tank by adding sugar and stopped at a maximum pressure of 2.5 bar, or carbonic acid is added by impregnation (Jakob, 2012).

Table 7: Definitions of Winzersekt, Sekt and Secco

<i>Winzersekt</i>	<i>Sekt</i>	<i>Secco</i>
<ul style="list-style-type: none">• at least 3,5 bar pressure• carbonic acid from the second fermentation• grapes from own cultivation• classic bottle fermentation	<ul style="list-style-type: none">• at least 3 bar pressure• carbonic acid from the second fermentation	<ul style="list-style-type: none">• pressure between 1 and 2,5 bar• Still wine with added carbonic acid

2.2 Brands in the wine market

„A wine product is something that is made in a winery: a brand is something that is bought by the consumer. A wine can be copied by a competitor: a brand is unique. A wine can be quickly outdated: a successful brand is timeless.” (Spawton, 1998)

Different attributes define the brand and distinguish it from the competition. However, it is not possible to influence how consumers interpret the brand (Lockshin, Rasmussen, & Cleary, 2000). In addition to differentiation, a brand is also often regarded as a quality characteristic. The purchase decision can be simplified for consumers and binds them to the company

(Hünerberg, 2017). Brand awareness builds the brand image (Meffert, Burmann, & Kirchgeorg, 2015). There is brand trust, which is created by fulfilling various requirements. A product needs to meet the consumers' expectations and has to be unique in its selling proposition at the same time (Meffert et al., 2015). Because in Germany, 79% of the wine is sold in supermarkets and discount stores (Szolnoki, 2019), a strong brand can guide consumers (Proschwitz & Hanf, 2015). The origin (country or region) and the producer influence the prices (Schamel, 2006). Brands do not always have to be actively promoted, but can also be discovered by chance, such as the name of a wine line, a wine or a winery (Fleuchaus, 2011).

2.3 Involvement

The classification of the quality of sparkling and semi-sparkling wines is often related to the involvement of consumers (Stephen Charters, 2005). Stephen Charters (2005) states that even testers with a high wine involvement rate sparkling wines as more difficult than still wine. The reasons for this mostly are the perlage, the restraint of fruit notes as well as the insufficient experience. Consumers with a high level of involvement pay particular attention to the grape variety, the origin and the vintage (Hirche & Bruwer, 2014). They also consume wine more frequently, spend more money on it and often buy their wine directly from winegrowers. In the wine industry, brands are often based on extrinsic characteristics, such as origin, grape variety or the winery itself, which consumers use to navigate through the shelves (Lockshin et al., 2000).

3. HYPOTHESES

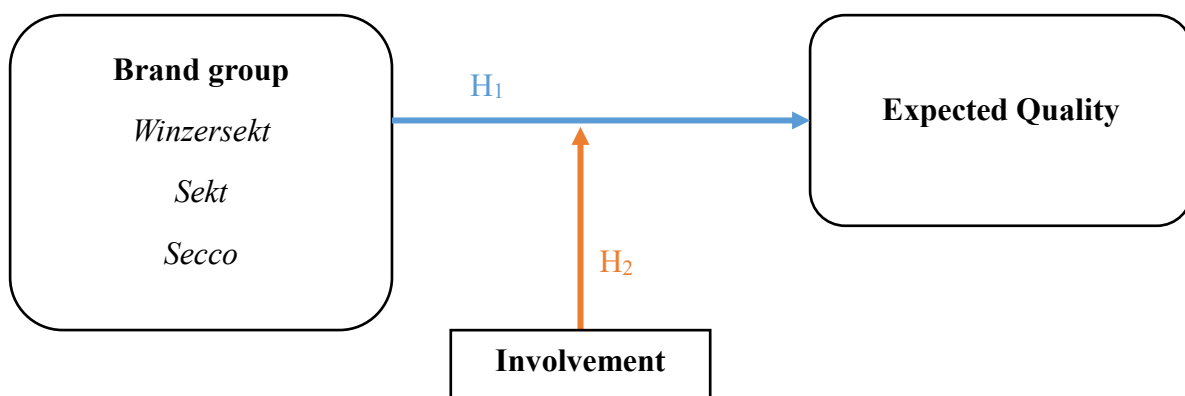


Figure 1: Visualization of the Hypotheses

The following two hypotheses are based on the presented literature. The first hypothesis deals with the expected quality of the bottle shown. Studies show that consumers often use extrinsic characteristics as a basis for assessing quality (Szolnoki, Hoffmann, Roland, & Justus, 2011).

Consumers might associate craftsmanship and, therefore, higher quality with the term *Winzersekt*. Therefore, the first hypothesis is:

H₁: The term *Winzersekt* has a positive effect on the expected quality.




Wine involvement is known to be important for the segmentation of wine consumers. Consumers with a lower wine involvement rely on different extrinsic cues than highly involved consumers. (Petzoldt, Profeta, & Enneking, 2008). Therefore, it is necessary to control for the wine involvement in this study as well. Hence, the second hypothesis is the following:

H₂: The wine involvement influences the assessment of expected quality.

4. METHODOLOGY

The study was conducted online with the survey tool keyingress. The study is designed as a between-subject experiment. An initial screening of the participants assures that all participants are at least 18 years old and drink at least occasionally sparkling wine. The participants were divided into the three different groups *Winzersekt*, *Sekt* and *Secco*, see table 2.

Table 8: Different labels for the groups *Winzersekt*, *Sekt* and *Secco*

<i>Winzersekt</i>	<i>Sekt</i>	<i>Secco</i>
		

In this part the participants were asked about the expected quality assessment as well as about the expected place of purchase of the bottles. The quality gradations could be classified between inadequate (1) and very good (5). After this, questions were asked about the general consumption of sparkling wine and wine involvement. The involvement was measured on the basis of ten items, see table 3, in a 5-point Likert scale developed by Hirche & Bruwer (2014). At the end of the questionnaire, the participants answered questions about demographics.

Table 9: Wine Involvement by Hirche & Bruwer, 2014

I have good general knowledge about wine.	Every now and then I visit a wine seminar.
Other people often ask me advice regarding wine	Sometimes, when drinking wine, I like the intellectual challenge of complex tastes.
Wine offers me relaxation and fun when life's pressures build up.	I am or would consider getting a member in a wine club.
I take particular pleasure from wine.	I regularly attend wine events / festivals.
I very much enjoy spending time in a wine shop.	Every now and then, I participate at a wine tasting.

5. RESULTS

A total of 696 participants took part in the study, which is why 232 participants were assigned to each group. Table 4 shows the descriptive statistics for age, gender, household size, monthly net income, frequency of sparkling wine consumption and wine involvement. The average age in all groups lies between 45 and 49 years with an average net income of 2,501€ to 2,750€ in a two-person household.

Table 10: Descriptive statistics

	Winzersekt	Sekt	Secco	Total
Age	Ø 45 - 49	Ø 45 - 49	Ø 45 - 49	Ø 45 - 49
Gender	♀ 51.7 % ♂ 47.4 %	♀ 56.5 % ♂ 42.2 %	♀ 51.7 % ♂ 47.4 %	♀ 53.3 % ♂ 45.7 %
Household size	Ø 2 people	Ø 2 people	Ø 2 people	Ø 2 people
Monthly net income	2501 € -2750 €	2501 € -2750 €	2501 € -2750 €	2501 € -2750 €
Frequency of sparkling wine consumption	once a month	once a month	once a month	once a month
Involvement	Ø 2.10	Ø 2.22	Ø 2.24	Ø 2.19

The χ^2 -Test was used to test the three different groups for homogeneity. The results (age: df = 20, F = 21.459, p = 0.371; gender: df = 6, F = 5.558, p = 0.474; monthly net income: df = 34, F = 25.470, p = 0.854; frequency of sparkling wine consumption: df = 10, F = 11.498, p = 0.320) do not show any significant difference, so that an equal distribution can be assumed (Backhaus, Erichson, Plinke, & Weiber, 2018).

The participants were able to classify the expected quality in the levels inadequate (1) to very good (5). This clearly shows that the expected quality for *Winzersekt*, which is 3.7, exceeds the other expected qualities. The expected quality for *Sekt* is 3.25 and for *Secco* 3.34.

The wine involvement construct has a Cronbach's α of 0.922. The respondents' involvement is on average 2.19 with a standard deviation of 0.893.

To check H_1 , an ANOVA was performed. The homogeneity of the variances is checked by the Levene's test. This shows that the same variances exist in the different groups *Winzersekt*, *Sekt* and *Secco*, $F(2,693) = 0.946$, $p = 0.389$. The ANOVA shows that the mean values between the groups differ significantly, $F(2,693) = 18,209$, $p < 0.001$, $w = 0.22$. The Turkey post-hoc-test shows a significant difference ($p < 0.001$) between the groups *Winzersekt* and *Sekt*, with a mean difference of 0.448 in the 95% confidence interval (0.26, 0.63) and between *Winzersekt* and *Secco*, with a mean difference of 0.353 in the 95% confidence interval (0.17, 0.54). Hence, it can be concluded that the participants rated the quality of *Winzersekt* higher by 0.448 compared to *Sekt* and 0.353 compared to *Secco*.

With the help of an ANCOVA, the influence of the involvement level for wine, H_2 , is controlled. The homogeneity of the covariates is measured with an ANOVA and shows no significance, $F(2,693) = 1.647$, $p = 0.192$, proving that the covariate wine involvement is homogeneous across the groups. The homogeneity of the regression slope is also proven by the significance value $p = 0.526$. The significance of the covariate wine involvement is $p = 0.031$. Therefore, the expected quality is significantly influenced by the wine involvement. The eta-square (η^2) is a measurement of the effect strength and states the proportion of variance explained by the respective variable, whereby the value always lies between zero and one (Backhaus et al., 2018). The value for η^2 for the covariate wine involvement is 0.007. Thus, 0.7% of the expected quality is explained by the covariate wine involvement. If the covariate wine involvement is controlled, 4.9 % ($\eta^2 = 0.049$) of the expected quality can be explained by the different groups *Winzersekt*, *Sekt* and *Secco*. η^2 decreased from $\eta^2 = 0.050$ to $\eta^2 = 0.049$ due to the control of wine involvement.

6. DISCUSSION

As described in the chapter results, the mean value of the expected quality of *Winzersekt* is 3.7. Expressed in words, this means 'good'. The ANOVA has shown that the word on the bottle has a significant influence on the expected quality. This is examined more closely using a post-hoc-

test. The test showed that the respondents rated the quality of *Winzersekt* 0.448 better than *Sekt* and 0.353 better than *Secco*.

Studies show that the majority of German consumers purchase their wine in discount stores and grocery stores (Szolnoki, 2019). In this setting, product differentiation through a brand is particularly suitable, as consumers often stand in front of the wine shelf without orientation or advice (Proschwitz & Hanf, 2015). Schamel (2006) figured out that it helps to promote the reputation of a wine-growing region or a grape variety, because the promotion of a regional brand has a positive influence on both the signals of regional origin and the quality. A wine line, a wine or a winery can represent a brand (Fleuchaus, 2011). This study shows that the expected quality of *Winzersekt* is higher than *Sekt* or *Secco*. In conclusion, the studies indicate that *Winzersekt* can be used to establish a brand for German winegrowers.

The influence of the wine involvement was tested by the second hypothesis. This shows that 0.7% of the expected quality can be explained by the wine involvement. The influence of the involvement on the expected quality is very small, but significant. According to Petzoldt et al. (2008), consumers like to orient themselves on extrinsic features in order to draw conclusions about the quality of the product. The very small effect of involvement shows that the term *Winzersekt* is positive for all participants.

7. THEORETICAL AND MANAGERIAL IMPLICATIONS AND CONCLUSION

Many studies show that the introduction of a brand is worthwhile because it gives consumers orientation and thus simplifies the purchase decision. The lack of classification in German sparkling wine is often criticized. Consumers have problems to differentiate qualities in sparkling wines. The wide choice of products complicates the purchase decision even more. Especially in supermarkets, where most consumers buy their sparkling wine, there are no clear differentiations. Industrial sparkling wines can be found next to sparkling wines from winegrowers – almost impossible to distinguish. In addition, sparkling wine is not an everyday product; therefore, consumers are hardly familiar with it, which is a further reason to simplify the purchase decision. This study has shown that the term *Winzersekt* has a positive effect on the quality perception of consumers and that a broad introduction of the term on labels could lead to better differentiation in the market place. Due to the huge variety and complexity, however, consumers need information about the products. There certainly is a lot of educational work to be done in order to explain consumers the differences in sparkling wine productions. Further research in this sector is necessary to refine the statements about the origin of quality expectations for *Winzersekt*.

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Exploring the ‘Laws of Growth’ in the China Wine Market

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1. BACKGROUND

Evidence-based marketing is necessary to improve the capability of the marketing function. Sharp (2010) and Romaniuk and Sharp (2016) provide detailed evidence for the Ehrenberg-Bass Institute for Marketing Science’s ‘laws of growth’ founded on original work by Ehrenberg (2000). Despite the 70-year history of this literature documenting patterns of brand-buying with seminal works such as Ehrenberg (1959) and Ehrenberg and Goodhardt (1968), its application to the wine category is much more recent.

Currently, China is a market of great interest to the wine sector. There is a growing body of knowledge of perceptions of imported wine in China, but not a consumer view of competition in the market. This research aims to document the market structure of the retail wine market across a range of tier 1 and tier 2 cities in China.

Cohen et al. (2011) explored market structure in the Australian wine market from the perspective of grape variety. Cohen and Tataru (2011) investigated the French wine market. Corsi et al. (2017) further extended insights into market structure in France. Trinh et al. (2019) documented the structure of wine buying from the perspective of country of origin in the UK market.

A notable difference in wine research is that brand is not often explored, but rather attributes like country of origin (COO), region of origin (ROO), grape variety and price tiers. These cues are important from a producer and wine association view. Managerially, there is a need to explore market structure using consumer-based cues due to a lack of brand awareness.

2. METHODOLOGY

This research reports market structure in China from a COO perspective showing the law of ‘double jeopardy’ (Sharp 2010), and the duplication of purchase following Scriven and Danenberg (2010). It illustrates the negative binomial distribution (NBD), extending Trinh et al. (2019). A survey of 2871 alcohol buyers was conducted in May/June of 2019 across 15 cities in China. The sampling frame used the guidelines of Cohen and Lockshin (2017) and preliminary findings from Cohen et al. (2018). The instrument was designed to capture claimed purchasing over a 6-month period using the findings of Nenycz-Thiel et al. (2012) and Ludwichowska et al. (2017).

3. RESULTS

Table 1 below shows the double jeopardy pattern for COO in China.

Table 1: Double Jeopardy in China

Country	Market Share (%)	Penetration (%)	Average Purchase Frequency
France	24	58	2.8
China	20	40	3.4
Italy	9	25	2.4
Portugal	8	21	2.4
Australia	8	22	2.2
Spain	7	19	2.5
USA	6	17	2.5
New Zealand	6	17	2.5
Chile	5	17	2.2
Argentina	3	9	2.4
South Africa	3	7	2.8
Average	9	23	2.6

Double jeopardy is evident. There is large variation in the penetration of the COOs, but very little variation in the average purchase frequency. It shows that the only way to sustainably grow any COO in China is to increase the number of buyers rather than increase repurchase (loyalty).

Table 2 below shows the duplication of purchase analysis for COO in China.

Table 2: Duplication of purchase by COO in the China

Buyers of	Pen	% who also bought (last 6 months)										
		France	China	Italy	Australia	Portugal	Spain	USA	New Zealand	Chile	Argentina	South Africa
France	58		44	24	20	18	18	16	14	18	7	5
China	40	64		28	25	21	19	20	18	19	9	7
Italy	25	55	45		21	22	24	19	21	18	12	8
Australia	22	52	45	23		23	19	21	20	26	15	11
Portugal	21	49	39	25	24		24	22	27	17	17	10
Spain	19	54	42	31	22	28		25	25	16	16	14
USA	17	53	48	28	28	27	28		21	17	19	10
New Zealand	17	49	43	31	27	34	28	21		26	16	12
Chile	17	60	46	27	35	22	18	17	26		17	12
Argentina	9	45	39	31	36	39	33	35	29	30		14
South Africa	7	42	40	29	33	28	36	25	28	28	18	
Average	23	52	43	28	27	26	25	22	23	22	15	10

Table 2 shows that there is one wine market in China. There is not a domestic Chinese wine buyer and an imported wine buyer. It shows that competition in the wine category is driven by size. For example, when buyers of Australia buy other COOs they are more likely to buy France or China. That being said, this method illustrates that Australia and Chile share buyers between them more than their market penetrations would predict perhaps due to being from New World.

The NBD pattern is evident across all COOs (see Figure 1 below). This shows that most buyers buy infrequently (light buyers). There are slight deviations from this pattern, which are likely due to availability in the market.

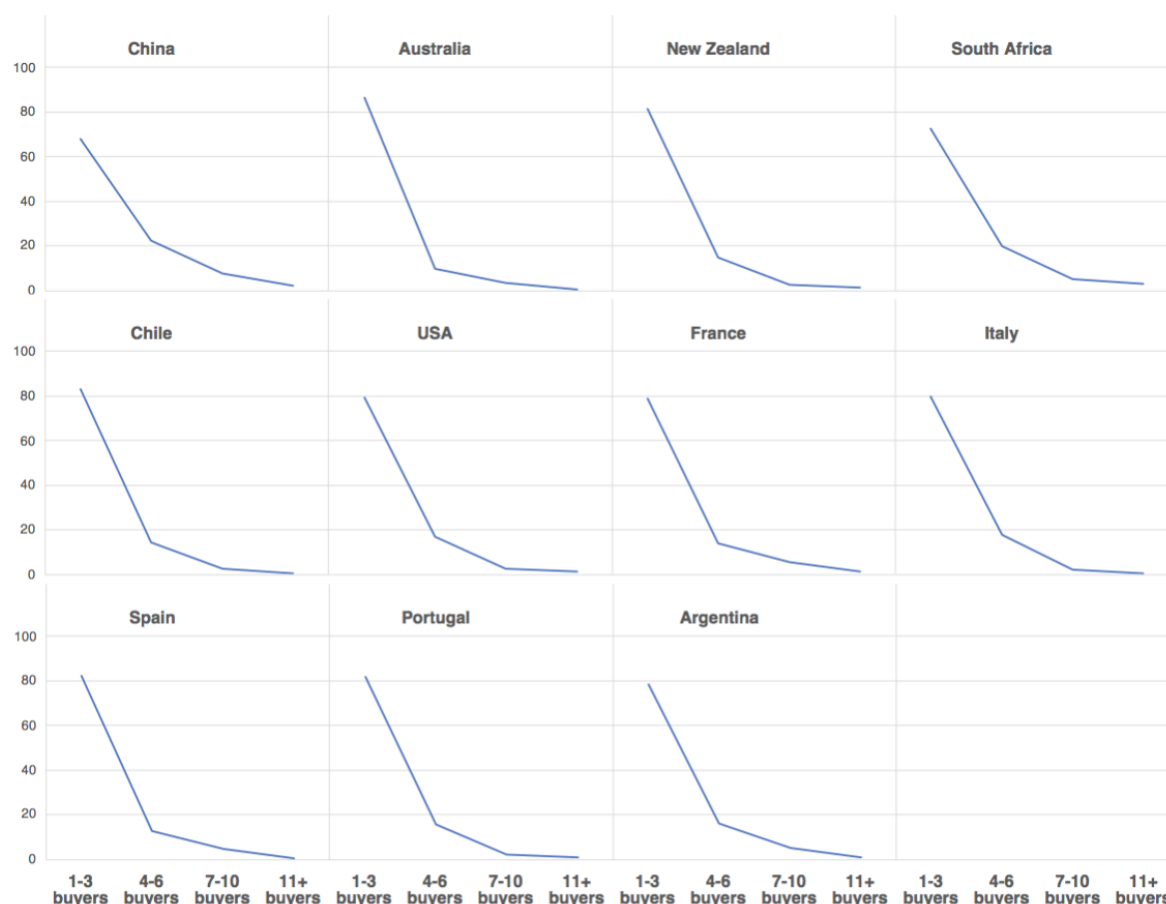


Figure 1: NBD graphs by COO in China: percent of buyers buying 1-3x up to 11+x

4. CONCLUSION

This research illustrates that despite the lack of readily available panel data in China, market structure can be generated using claimed purchase data and extends the ‘laws of growth’ to COO in China. The managerial implications are that COOs compete head on with each other in China; there are no market partitions. Growth will be achieved by increasing the size of your customer base so strategies that increase penetration must be deployed. Finally, communicating only to heavy buyers will have limited impact. The evidence shows that the light buyers are key to growth and should be the target of communications.

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Applying the Mental Availability Framework to Country of Origin in the China Wine Market

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1. BACKGROUND

China and its wine market are of keen interest to both academics and practitioners. Due to the infancy of the China wine market, the limited marketing budgets of small and medium wine brands and the responsibility for building awareness and perceptions left in the hands of government and wine industry bodies, country of origin (COO) has become a pivotal component of wine communication strategy in China. The findings reported here are building

on Stage 1 of an ongoing research agenda in China that generated a list of potential category entry points (CEPs), the occasions, reasons and drivers a Chinese person enters the wine category. This initial research was presented at AWBR in Stellenbosch by Cohen et al. (2019a) and further detailed by Cohen et al. (2019b). Stage 2, reported here, addresses a gap in the literature and increases knowledge of the China wine market by quantitatively measuring mental availability of countries of origin, which is a measure of how easy the brand is to think about when purchasing from the wine category (Romaniuk and Sharp, 2016).

2. METHODOLOGY

Mental availability measurement is a two-staged process that is based on the elicitation of category entry points based on Romaniuk and Sharp (2016) and the guidelines documented by Hogan et al. (2016). The second stage is the quantitative measurement of the category entry points against a competitive set using the pick-any approach. Romaniuk (2013) outlines the 3 metrics: 1) mental market share 2) mental penetration and 3) average network size. Table 1 below defines the three metrics. More analysis will be presented at the conference.

Table 1: 3 metrics of mental availability

Mental availability metrics	Definition
Mental market share (%)	Share of associations, as a % of all associations between brands and attributes in the set
Mental penetration (%)	% people linking brand to at least one attribute
Average network size	Average number of attributes linked to brand, for those with at least one brand association

In March/April 2019 a sample of 1296 alcohol buyers were recruited via an international online panel provider across twelve cities in China. The sampling was based on the findings of Cohen et al. (2018) and the guidelines for reaching light buyers suggested by Cohen and Lockshin (2017). The cities selected were driven by their managerial relevance to Wine Australia who generously supported this research. The mental availability measurement was conducted on the 22 CEPs generated for wine buying from Stage 1 of this research.

3. RESULTS

Table 1 below reports the Mental Market Share (%) for country of origin in China.

Table 1: Mental Market Share (%) for COO for wine in China

Country	Mental Market Share (%)
France	17%
China	16%
Italy	10%
Australia	9%
USA	8%
Portugal	8%
New Zealand	7%
Spain	7%
Chile	7%
Argentina	6%
South Africa	5%

This measure is useful for understanding the total share of mind that COOs for wine have among alcohol category buyers in China. This is important because the only other real statistics available on COO for wine in China are based on Chinese customs import data. Currently this is used as a proxy for success in the marketplace, but at best is only a measure of inventory and not sales. France and China are both the dominant players in the minds of Chinese.

Table 2 below reports the Mental penetration (%) and Average Network Size for country of origin for wine in China.

Table 2: Mental penetration (%) and Average Network Size for COO in China

Country	Mental Penetration (%)	Average Network Size
France	92%	8.3
China	92%	8.1
Italy	78%	5.6
Australia	77%	5.3
USA	73%	4.9
Portugal	75%	4.8
New Zealand	73%	4.7
Spain	73%	4.5
Chile	69%	4.7
Argentina	62%	4.1
South Africa	59%	4

(COOs ordered by Mental Market Share % reported in Table 1)

Presenting these two metrics together is useful for showing a clear pattern in data. The COOs with higher mental penetration also have larger network sizes. This suggests that the pathway for a COO to grow in China is to build associations with more relevant CEPs.

4. CONCLUSION

Measuring mental availability is a superior way to investigate the brand health of COOs amongst a competitive set. It is a viable alternative to traditional brand health/equity research streams that typically try and understand how consumers associate descriptors and adjectives that are typically generated by research agencies and not ‘real people’ in the market place. These approaches are typically concerned more about identifying brands so called ‘personalities’. On the other hand, mental availability measures the strength and breadth of the connections to the actual occasions in which a buyer would enter the category of wine. An additional improvement is that these CEPs are generated from a standardised approach. The outcome of this two-stage process can be used to design strategies for growth and defence against the competition.

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Analyzing Wine Preferences of Generation Z Wine Consumers in High and Low-Involvement Situations on a Global Basis

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1. INTRODUCTION

As wine consumption decreases or flattens in many countries (OIV, 2018), including the US – the largest wine consuming nation on the world (Nielsen, 2019) – it behooves wine marketers to identify new target markets. One possibility is the new generation of potential wine consumers named “Gen Z”, where the youngest is now aged 24. The fact that Gen Z is a larger global population than the Millennials (Miller & Wei, 2018), indicates they are an ideal segment to analyze regarding their wine preferences in high and low involvement situations.

2. PRELIMINARY LITERATURE REVIEW

Generation Z has burst upon the world as one of the largest generations to date, comprising 32% of the world population (Miller & Wei, 2018). In the US, they are also the largest current generation, making up 27% of the population in comparison to Millennials at only 22% and Baby Boomers at 23% (Duffin, 2019). However, the global wine industry has not yet paid much attention to this group, because they were born between the years of 1995 and 2009 (American Generations Report, 2014), making the oldest only 24 years of age in 2019. Given that the legal drinking age in many countries ranges from 18 to 21, it is understandable that very little academic research has been conducted on this group in the wine industry.

However, Gen Z is important because they currently represent more than \$143 billion in buying power (Dill, 2015), with an expectation of a huge impact on consumer products sales, not only in the US, but on a global basis. Having been born in the Internet age, they are very computer savvy, but also security conscious, including a strong attentiveness to ingredient labeling (Vennare, 2018; Rosen 2010). Market researchers report that Gen Z is realistic, curious, open-minded, responsible, and determined, with many interested in entrepreneurial careers (Kleinschmit, 2019; Seemiller & Grace, 2016; Lifeway, 2018).

When analyzing specific consumer segments, it is useful to consider high and low involvement situations because they influence a consumer’s purchase intentions (Aqueveque, 2006; Charters, 2006; Hall and Lockshin, 1999; Dodd et al, 2005). For example, low involvement situations may be purchasing wine for dinner at home, which is considered less risky, compared to high-involvement situations, like selecting wine for a wedding gift. Therefore this is a useful variable for consideration with the global Gen Z population, along with gathering information on other pertinent wine preference and behavior factors.

3. PRELIMINARY RESEARCH QUESTIONS

- 1) What are the wine preferences of Gen Z in high and low involvement situations?
- 2) Do demographic variables of Gen Z impact wine involvement?
- 3) What recommendations do Gen Z wine consumers have for the global wine industry to increase wine sales?

4. METHODOLOGY

An online survey instrument was developed to collect information regarding Generation Z wine consumer preferences, behaviors, beliefs, and demographics. The survey was administered to a convenience sample of over 270 wine consumers in the Spring of 2019, resulting in 158 usable responses from Gen Z wine consumers. Quantitative data were analyzed using the statistical function in Excel. Qualitative comments were analyzed using a thematic coding process, and then documented digitally in video portraits illustrating major themes.

5. PRELIMINARY FINDINGS

The final Gen Z sample, aged 21 to 23, was composed of 73% women and 27% men. This is higher for women when compared to the US wine consumer average of 56% women to 44% men (WMC, 2018), but could be due to the fact that it was a convenience sample. Geographical location was 85% from California, the largest wine consuming state in the nation. Highest ethnicity segments included 71% Caucasian, 12% Hispanic and 7% Asian. In terms of wine consumption, 32% reported drinking wine several times per week or daily, with 68% consuming wine less frequently.

For wine preferences, 70% of the Gen Z consumers indicated they liked white wines, followed by 68% red wine. Surprisingly 52% listed rose as a preference followed closely by 49% sparkling. These latter two numbers are higher than other US wine consumer preferences for the general population (WMC, 2018), but could also be due to the increasing popularity of both rose and sparkling wines in the US market (Nielson, 2018).

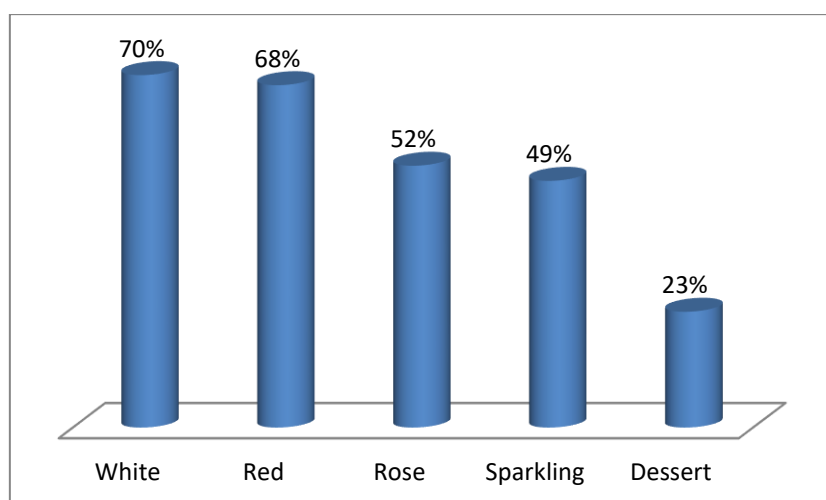


Figure 1: Wine Preferences of US Gen Z Wine Consumers

Data on preferred wine taste was also collected, as well purchase location, packaging preferences, lifestyle, wine knowledge, favorite wine brands, and social media usage.

Regarding wine opinions, surprisingly 90% of the sample agreed or strongly agreed with the statement that wine is pleasurable, followed by 83% stating it is delicious; 81% fun; and only 19% stating that wine is confusing and 15% finding wine snooty.

The qualitative data analysis included 235 comments responding to the question: “What should the wine industry do to market better to Gen Z?” Responses were thematically analyzed with 10 emerging themes, including more advertising, attractive packaging, pricing, and healthier options, e.g. low-no alcohol.

6. CONCLUSION/FUTURE RESEARCH

Preliminary results suggest that Gen Z wine consumers in the US market appear to be embracing wine in an encouraging manner, agreeing with positive statements about wine. However, as this research was comprised of a convenience sample of Gen Z wine consumers, it would be useful to also survey non-wine consumers. In addition, more detailed data collection needs to occur regarding low and high involvement wine situations in order to assess if other types of beverages are more attractive than wine in different situations. The advent of low-no alcohol wines in the global market could also be analyzed, as this is one of the suggestions of Gen Z consumers emerging from the qualitative comments in the research.

More importantly it would be beneficial to develop a more comprehensive survey that could be distributed on a national basis in multiple countries in order to develop a base line on the preferences of Gen Z consumers on a global basis. The survey should include measurements on high and low involvement situations, as well as a qualitative section to continue to collect Gen Z recommendations on what the global wine industry can do to create wine products that will match their needs and generate sales.

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Predictive Label Design: Myth or Opportunity?

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Abstract

◦Purpose – Extant research shows that extrinsic product cues, such as packaging and branding, influence consumers' product evaluations. Wine consumption is a multi-sensory experience with possible interactions between different stimuli, such as label or taste. However, the potential effects of wine label design on consumers' actual product perceptions (e.g., taste or quality), consumer attitudes (e.g., liking or preference), and consumer behaviour (e.g., purchase intention or word-of-mouth) remain relatively unexplored. Our study builds on the theory of cross-modal correspondences as well as cue consistency theory to study such potential effects of wine label design on consumers' product perceptions, consumer attitudes, and consumer behaviour.

◦Design/methodology/approach – To study the effects of wine label design on consumers' product perceptions, consumer attitudes, and consumer behaviour, we proceeded in two sequential steps. First, we conducted several explorative pre-studies, involving qualitative expert interviews (n=20), a paper-pencil survey (n=20), and an online survey (n=876) with consumers in Australia and Germany. The results helped us to build an understanding of the impact of label design on consumers' taste associations and helped us to identify label design dimensions that trigger these taste associations. In a second step, we conducted a lab experiment (n=60) and several field experiments (n=271) to explore the impact of each

identified label design dimension on perceptions, attitudes, and behaviour with consumers in Germany.

◦Findings – Our pre-studies showed that consumers indeed link specific label designs to particular wine taste associations. We revealed four dimensions for the assessment of wine taste associations triggered by label design: sweetness, intensity, texture, and maturity. Several specific label cues and label designs result in distinct taste associations among our study participants. Surprisingly, we cannot validate the anticipated taste perception effect in a field-experimental setting. However, our results show that consumer perceptions of consistency between label design and flavour have positive effects on consumers' product perceptions, attitudes, and behaviour.

◦Practical implications – Our findings indicate that wine producers and label designers should collaborate to create the most effective wine-label pairings. Bringing consumers' expectations triggered by wine label design and actual taste perceptions in line via a taste-congruent label design creates a more favorable multi-sensory drinking experience.

Key words: Wine Marketing; Consumer Behaviour; Label Design; Predictive Packaging Design; Product Perception



CLUSTERS, COOPERATION & INDUSTRY

An Empirical Assessment of the COOP Scale: Evidence from the Canadian Wine Industry

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◦Purpose – Under resource-based theory and the relational view, the purpose of this study is to examine the relationship between coopetition (the interplay between cooperation and competition) using the COOP scale.

◦Design/methodology/approach – After conducting 18 field interviews, survey data were collected from 174 Canadian vineyards and wineries. The statistical data were assessed for all major assessments of reliability and validity (including common method variance and endogeneity bias). The research hypotheses and control paths were tested through an ordinary least squares regression analysis.

◦Findings – The dimensions of the COOP scale (local-level coopetition, national-level coopetition, and organisation-level coopetition) had positive and significant links with company performance. However, post-hoc tests revealed that the relationship between coopetition and company performance is non-linear (inverted U-shaped). Further analysis will be conducted in the coming months to evaluate additional applications of the COOP scale.

◦Practical implications – While collaborating with competitors is likely to be a performance-driving strategy, firms should avoid engaging in “too little” or “too much” coopetition, since there could be harmful effects on their performance.

Key words: Coopetition, company performance, resource-based theory, relational view, Canadian wine industry.

1. INTRODUCTION

Coopetition is the interplay between cooperation and competition, whereby, industry rivals share resources and capabilities for mutually-beneficial outcomes (Bengtsson and Raza-Ullah, 2016). Despite being a relatively well-studied topic, scholars have overlooked the complexities of the coopetition construct in their conceptualisations and operationalisations. That is, the measures that have been tested have several limitations, such as using single-item proxies (Ang, 2008) or uni-dimensional lenses (Bouncken and Kraus, 2013). Such limited measures have not captured the different ways that firms can collaborate with their competitors. Recently, Crick and Crick (2019) developed and validated the COOP scale, which contained three facets, namely, local-level coopetition, national-level coopetition, and organisation-level coopetition. Unfortunately, Crick and Crick's (2019) paper contained several limitations, such as only using two items to measure each dimension of the COOP scale and utilising data from New Zealand sporting clubs (a non-mainstream setting) in their empirical work. Likewise, Crick and Crick (2019) did not examine the link between coopetition and company performance and provided limited applications of the COOP scale. Consequently, under resource-based theory and the relational view (Barney, 1991; Dyer and Singh, 1998), the objective of this study is to assess the relationship between coopetition and company performance using the COOP scale.

2. LITERATURE REVIEW

This paper was guided by resource-based theory and the relational view to examine the cooperative and competitive dimensions of the coopetition construct (Dyer et al., 2018). Such theoretical lenses were utilised to develop a conceptual framework, with three research hypotheses and four control paths. Specifically, it was anticipated that local-level coopetition, national-level coopetition, and organisation-level coopetition are likely to have positive links with company performance. In other words, if firms collaborate with rival entities within a close geographic proximity or across different regions and product-markets, they will be able to obtain new resources, capabilities, and opportunities that would not exist under individualistic business models (Felzensztein et al., 2018). By examining the coopetition across these different levels, this current investigation could respond to recent calls for research to explore the dimensionality of the coopetition construct (see Bengtsson and Raza-Ullah, 2016). Further, the outcome variable (company performance) was controlled by firm size, firm age, degree of internationalisation, and industry experience, as additional factors that might explain its variance (Barney, 1991; Dyer and Singh, 1998; Cadogan et al., 2009).

3. METHODOLOGY

An ideal empirical context for coopetition-based research is one that hosts high-degrees of cooperativeness and competitiveness, which can be found in several wine-producing countries (Crick, 2018). As such, the population of interest for this study was the Canadian wine industry. After conducting 18 field interviews with managers in several wine regions in Canada, an electronic survey was developed (via Qualtrics) and was pre-tested with several academics and practitioners (Reynolds and Diamantopoulos, 1998). Then, a pilot study was undertaken, followed by the core study. The working sample size is 174 observations (a 25.33% response rate). After purifying the operationalisations via a series of multivariate techniques, the

statistical data were assessed for all major forms of reliability and validity (including common method variance), revealing no concerns (Fornell and Larcker, 1981; Cadogan et al., 2009; Williams et al., 2010). The research hypotheses and control paths were tested through an ordinary least squares regression analysis (Crick and Crick, 2019).

4. PRELIMINARY RESULTS

Local-level coopetition, national-level coopetition, and organisation-level coopetition had positive and significant relationships with company performance. In addition, a high amount of the outcome variable's variance was explained by the independent variables. A post-hoc test revealed that a composite of the COOP scale has a non-linear (inverted U-shaped) link with company performance, suggesting that coopetition is only a beneficial strategy up to a fixed point before a diminishing-returns effect occurs. For clarity, these statistical results are preliminary and will be explored with more robust tests and potentially extra empirical data. Currently however, there are some interesting applications of the COOP scale, in terms of the dimensions and shape of the relationship with company performance. Also, the COOP scale is able to be adopted in mainstream sectors (the Canadian wine industry), not just New Zealand sporting organisations.

5. CONCLUSIONS AND MANAGERIAL IMPLICATIONS

To conclude, this investigation has discovered new insights into the multi-dimensionality of the coopetition construct, in terms of how firms can collaborate with their competitors across different geographic proximities and product-markets. Moreover, it is concluded that integrating resource-based theory and the relational view helped to better-understand the cooperative and competition aspects of the coopetition construct. It is also concluded that while coopetition might improve company performance, firms should avoid engaging in “too little” or “too much” of such activities, as they could risk harming their performance. It is finally concluded that new evidence has emerged that the COOP scale is an effective operationalisation of the coopetition construct, since it embraces its complexities, as well as being testable with empirical data.

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Size versus Region – Identifying Suitable Benchmarking Factors Explaining Sufficient Heterogeneity between Wine Businesses

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Abstract

◦*Purpose* – To assess a wine producer's economic sustainability it is useful to benchmark its economic indicators against a suitable reference group. Existing research mainly compares wine businesses either by region or by size alone. There is a research gap concerning which of the two benchmarking factors might be more suitable or whether both factors are required.

◦*Design/methodology/approach* – Using the framework of economic sustainability benchmarking figures by Loose *et al.* (2021), the effects of region and size as well as the effect of their interactions on 11 economic indicators were estimated through ANOVA and the estimation of effects sizes. The analysis is based on business data of 382 German wine estates as averages across six agricultural years (2014-2019).

◦*Findings* – Region and size both had a significant influence on (partially differing) eight out of 11 benchmark indicators. Wine estates from distinct regions more strongly differed in their primary indicators of production factors, price and yield as well as secondary indicators of cost and productivity. Contrarily, wine estates of diverse size groups more strongly differed in their tertiary indicators of profitability and return, which closely relate to economic sustainability.

◦*Practical implications* – This is the first study to simultaneously assess wine estates' differences by region of origin and size. The two factors discriminate different economic indicators and complement each other. They should both be utilised for suitable economic indicators when benchmarking wine businesses.

Key words: economic sustainability, benchmarking, effect size, input factors, yield, costs, profitability

1. INTRODUCTION

Businesses want to compare and benchmark themselves to the most suitable reference group with the highest relevance. In the past, the region or country of origin has been frequently used, in order to compare performance in various fields of the wine industry (Garcia *et al.*, 2012; Tomljenović and Getz, 2009; Vrontis *et al.*, 2011; Corkindale and Welsh, 2003). There are fewer studies analysing the effect of business size on winery performance (Sellers and Alampì-Sottini (2016). The question whether the region of origin or size is a more meaningful factor for benchmarking winery performance is important for benchmarking tools, such as the digital dashboard on economic sustainability developed by Bennett and Loose (2022).

1.1 Why benchmarking is important

Benchmarking requires the measurement of the difference between the current performance level of an organization and the best practically possible level, in order to identify causes for each deviation (Camp, 2007). It is a continuous process of measuring against the best. A very important part of benchmarking is identifying companies against which to benchmark. While there are multiple bases against one can choose to benchmark, benchmarking against product competitors is compulsory. A certain level of comparability is essential here, as primary business performance drivers should be similar (Camp, 2007; Bogetoft Pedersen, 2012). Size is a potentially limiting factor in terms of comparability Camp (2007), because it affects the degree of automation or distribution activity otherwise direct product competitors. To further understand, if a wineries size or region of origin can have a stronger influence on comparability, this paper establishes potential influences of both factors on business success and sustainability. So far, there is no research available on the relative effect of size and region on economic performance indicators for small and medium sized businesses in the wine sector. This study aims at filling this research gap.

1.2 The Wine sector Business Analysis

In search for benchmarking figures for a core framework of economic sustainability in the wine industry, Loose *et al.* (2021) conceptualised multiple factors. This paper draws on this framework by including a similar benchmark structure with a total of seven factors (Figure 18). They are operationalised by two independent external variables estate size and region of origin and eleven benchmark indicators, which represent the dependent variables.

Land, capital and labour represent traditional economic input factors, the latter two are operationalised as asset coverage and labour intensity. Jointly the input factors result in raw output of wine, measured as yield in hectolitres per hectare. The wine price represents the market valuation of the wine, measured as average price from dividing turnover by production volume. Cost per litre is derived from total cost and imputed remuneration of family staff divided by production volume. Efficiency is operationalised as labour productivity that represents the turnover per worker. Similar, area productivity relates the turnover to the production factor land (vineyard area). The final set of benchmarks of profit and return are most comprehensive by relating revenue and cost per output (profit per litre), revenue and cost (operational result), as well as revenue and cost per unit of capital (returns). The dependent performance indicators are defined in detail in Table 15 in the Appendix.

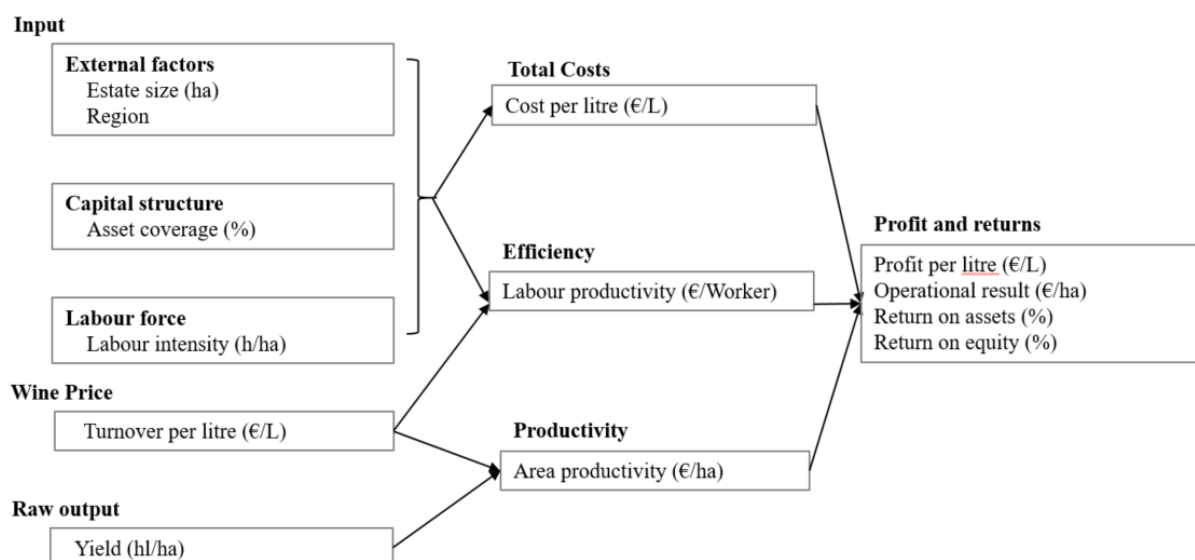


Figure 18 A framework of economic sustainability benchmarking figures (based on Loose *et al.* (2021))

This framework offers an adequate overview of the economic sustainability of a single wine business Loose *et al.* (2021). So far it remains unknown, by which factor to choose the sample of businesses to preferably benchmark the indicators against. This is an essential question to answer, to gain the most meaningful results for wine businesses.

2. EFFECTS OF WINE REGIONS AND SIZE

2.1 The influence of wine regions in the wine sector

Generally, two potential influencing factors tied to the region of origin can be distinguished (Table 11). Space limitations prevent a detailed discussion.

Table 11: Regional factors of influence on performance indicators

Cause	Category	Influential Factor
Structural (Production)	Climactic	<ul style="list-style-type: none"> Intensity of sunshine ((László Makra) <i>et al.</i>, 2009; Agosta <i>et al.</i>, 2012) Precipitation (Agosta <i>et al.</i>, 2012; (László Makra) <i>et al.</i>, 2009) Mean temperature (Agosta <i>et al.</i>, 2012)
	Geologic	<ul style="list-style-type: none"> Water retention capacity of the soil (Hofmann and Schultz, 2015) Evapotranspiration (Hofmann and Schultz, 2015)
	Geographic	<ul style="list-style-type: none"> Steep Slopes (Strub and Loose, 2021) Vineyard area distribution (Galindro <i>et al.</i>, 2018; Pomarici <i>et al.</i>, 2021) Regional differences in cost and access to labour (McCorkle <i>et al.</i>, 2019)
	Technological	<ul style="list-style-type: none"> Manual labour (Loose and Pabst, 2020a) Mechanization (Strub and Loose, 2021)
Market (Sales)	Marketing	<ul style="list-style-type: none"> Reputation (Ling and Lockshin, 2003; Bicknell and MacDonald, 2012; Riscinto-Kozub and Childs, 2012; Landon and Smith, 1997; Delord <i>et al.</i>, 2015)
	Distribution and margin	<ul style="list-style-type: none"> Attractiveness for wine tourism (Tafel and Szolnoki, 2020) Cellar doors, self-marketing without loss of margin but higher cost (Loose and Pabst, 2020a) Sales through intermediaries that require margin (Loose and Pabst, 2020b)

The first factor relates to structural differences, caused by climatic, geologic, geographic and technological differences, which mainly affect the production of wine. These effects are expected to impact yield and the degree of mechanisation affecting cost. The second factor relating to the wine market summarises differences in regional reputation and differences in the utilisation of sales channels, influencing turnover per litre. These effects will carry over to the indicators of the second layer with total costs, efficiency and profitability, to some extent (H1a to H7a in Table 16 the Appendix).

Performance indicators of profit and returns are tightly connected and depend on previous indicators of labour intensity, pricing, yield, cost, efficiency as well as productivity and their interactions. Some of these effects, such as pricing and costs are expected to offset. For instance, smaller regions with higher costs benefit from higher prices and higher area productivity. Because of these offsetting-effects, it is expected that region has no effect on these indicators of profit and returns (H8a – H11a).

2.2 Influence of business size in the wine industry

The other overarching factor analysed in this study, is business size. Existing research suggests two major factors of how size affects business performance (Table 12). As supported by a large number of studies, size can have a positive effect on efficiency and considerably reduce relative costs through economies of scale (Arcas *et al.*, 2011; Silberston, 1972; Duffy, 2009). This is expected to effect labour intensity and productivity, cost per litre and as a result, all profitability indicators, as listed in H1b to H11b in in Table 16 the appendix.

Table 12: Factors of influence on performance indicators through business size

Category	Influential Factor
Economies of scale	<ul style="list-style-type: none"> – Decreasing costs per unit (Silberston, 1972; Arcas <i>et al.</i>, 2011; Duffy, 2009) – Minimum efficient plant size (Junius, 1997; Duffy, 2009) – Consolidation (Perretti, 2020; Sellers-Rubio <i>et al.</i>, 2016) – Technological advancements, efficient equipment and machinery (Perretti, 2020; Tudisca <i>et al.</i>, 2013)
Sales through intermediaries	<ul style="list-style-type: none"> – Limited geographical scope, reduced turnover per litre because of margin required for sales through intermediaries (Pomarici <i>et al.</i>, 2021) – Larger wine estates have higher share of sales through intermediaries (Loose and Pabst, 2018) – Small wine estates have higher average prices

The second factor relates to the role of intermediaries. Smaller wine estates are more able to sell their production volume directly to consumers, e.g. through cellar doors. Expanding wineries outgrow their geographical vicinity and cannot solely rely on direct consumer sales, forcing them to adapt their pricing structure in order to be able to successfully serve intermediaries (Loose and Pabst, 2020a). This second factor is expected to impact price.

3. METHODOLOGY

This study only focusses on wine estates, which represent approximately 27% of total German production volume (Loose and Pabst, 2018). Data was provided by the Hochschule Geisenheim University business analysis. Averages for 11 key attributes and performance indicators to be benchmarked were calculated across six agricultural years from 2013/2014 to 2018/19. This is required to avoid distortions from strong annual differences, e.g. related to yield.

The data set comprises business data of 382 German wineries, spanning across eight regions and divided into four size categories. The size categories were defined equal to those of Wetzler *et al.* (2021), resulting in the following data structure (Table 13).

Table 13: Sample structure - wine estates per region and size category ($n=382$)

Region	Size Category				Total
	<5ha	5-10ha	10-20ha	>20ha	
Baden	6	8	13	10	37
Franken	5	17	19	6	47
Mosel	19	20	9	0	48
Nahe	1	5	15	2	23
Pfalz	1	10	41	24	76
Rheingau	3	7	6	6	22
Rheinhessen	0	18	50	34	102
Wuerttemberg	1	6	17	3	27
Total	36	91	170	85	382

There are major structural differences between the regions, which are also reflected in the data set. While the Mosel region has the largest number of wineries belonging to the first size category by far (<5ha), Pfalz and Rheinhessen contain predominantly large winery structures, with the majority belonging to the third (10-20ha) and fourth (>20ha) size categories.

In order to estimate the effects a two-factor ANOVA in SPSS was conducted, also taking into account interaction effects between region and size. Depending on the hypothesis the corresponding indicator was selected as the dependent variable with the size category and the region being chosen as the two fixed factors as well as their interaction effect. Hypothesis are tested according to F-statistics and significance values are provided. Partial eta-squared was computed as effect size, indicating which of the two fixed factors explains more variance, followed by a Tukey-B Post-Hoc Test. The reference values of 0.01 (small), 0.06 (medium) and 0.14 (large) suggested by Cohen (1988), Miles and Shevlin (2008) were applied to assess the magnitude of effect sizes.

4. RESULTS

The detailed results of ANOVA and post-hoc tests are provided in the Appendix in Table 17 to Table 22. Hypothesis tests are summarised in Of the total of 11 indicators, we found eight significant effects for both factors region and size. Although the amount is equal, the distribution across the three layers is not. There are more significant differences for region than for size in the first two layers - two of them are large (yield and cost per litre). For the third layer the effect of the factor size clearly dominates with all four indicators being medium strongly positively affected by size. On the contrary, there are only small differences between regions for the two return indicators.

Table 14. Because of space limitations the individual results cannot be presented and discussed in full detail in this conference paper.

All of the 11 indicators were significantly affected by either region, size, or both factors. The interaction term of region and size was never statistically significant and was always exceeded in effects size by at least one of the two main effects region and size.

- For the first layer region had a large effect on yield and two medium strong effects on labour intensity and price (turnover per litre). Size had a medium sized negative effect on labour intensity and a small positive effect on asset coverage, contrary to our expectation.
- For the second layer region had a large effect on cost per litre, a medium effect on area productivity and a small effect on labour productivity. For size we found a medium strong positive effect on labour productivity and a small negative effect on cost per litre.
- For the third layer of profitability and return size had a medium strong positive effect on all four benchmark indicators. Region only had two small effects on return on assets and return on equity.

Of the total of 11 indicators, we found eight significant effects for both factors region and size. Although the amount is equal, the distribution across the three layers is not. There are more significant differences for region than for size in the first two layers - two of them are large (yield and cost per litre). For the third layer the effect of the factor size clearly dominates with all four indicators being medium strongly positively affected by size. On the contrary, there are only small differences between regions for the two return indicators.

Table 14: Summary of the results of hypothesis tests and effect sizes

Layer	Benchmark		Factor	Hypothesis	Test, <i>p</i>	Effect size	Magnitude*
1	Asset coverage	H1a	Region	No difference	Confirmed, n.s.	0.029	
		H1b	Size	Negative effect	Not confirmed, positive	0.022	small
	Labour intensity	H2a	Region	Difference	Confirmed, <0.001	0.119	medium
		H2b	Size	Negative effect	Confirmed, <0.001	0.121	medium
	Turnover per litre	H3a	Region	Difference	Confirmed, <0.001	0.130	medium
		H3b	Size	Negative effect	Not confirmed, n.s.	0.005	
	Yield	H4a	Region	Difference	Confirmed, <0.001	0.190	large
		H4b	Size	No effect	Confirmed, n.s.	0.013	
2	Cost per litre	H5a	Region	Difference	Confirmed, <0.001	0.211	large
		H5b	Size	Negative effect	Confirmed, <0.05	0.023	small
	Labour productivity	H6a	Region	Difference	Confirmed, <0.05	0.040	small
		H6b	Size	Positive effect	Confirmed, <0.001	0.064	medium
	Area productivity	H7a	Region	Difference	Confirmed, <0.001	0.097	medium
		H7b	Size	Negative effect	Not confirmed, n.s.	0.006	
3	Profit per litre	H8a	Region	No difference	Confirmed, n.s.	0.032	
		H8b	Size	Positive effect	Confirmed, <0.001	0.101	medium
	Operational result	H9a	Region	No difference	Confirmed, n.s.	0.037	
		H9b	Size	Positive effect	Confirmed, <0.001	0.106	medium
	Return on assets	H10a	Region	No difference	Not confirmed, <i>p</i> <0.05	0.040	small
		H10b	Size	Positive effect	Confirmed, <0.001	0.109	medium
	Return on equity	H11a	Region	No difference	Not confirmed, <i>p</i> <0.05	0.048	small
		H11b	Size	Positive effect	Confirmed, <0.001	0.092	medium

Notes: *classification of magnitude according Cohen (1988), Miles and Shevlin (2008), factor with larger effect size highlighted in grey for each benchmark indicator.

5. DISCUSSION AND OUTLOOK

For holistic benchmarking of economic sustainability, a flexible approach ideally taking multiple factors into account is needed. Both the region of origin and the size group showed varying degrees of effect size and influence on multiple indicators. However, generally, the influence of one factor was mostly distinctly stronger for each indicator. As these differences were distributed unequally across the three benchmark layers, none of both factors showed

consistently dominant effects across the board. Therefore, future benchmarking frameworks would need to permit changing reference groups for different indicators. While benchmarking by size, as suggested by Camp (2007), was clearly more suitable for indicators of profits and returns, indicators of the first two layers would benefit highly from being benchmarked against businesses of the same region of origin, due to its' predominantly stronger effect sizes in these areas.

These findings are, of course, limited to the German wine sector and could be further validated by business data in other countries. Additionally, other important factors could influence benchmarks, although not all of which are observable or measurable (e.g. personality traits etc.). These could be taken into account and expanded upon in future studies to further deepen the understanding of concrete influences on benchmarking factors.

Acknowledgements: The project “[Profitability and ecological sustainability of wineries: Analysis and digital knowledge transfer](#)” is supported by the European research fund for regional development (EFRE).



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APPENDIX

Table 15: Definitions of all performance indicators

Layer	Factor	Benchmark	Definition
1	Input	Capital structure Asset coverage	Equity and middle & long-term liabilities, divided by the value of all fixed assets
		Labour force Labour intensity	Total number of working hours required per year, divided by the winery size (h/ha).
	Wine Price	Turnover per litre	Approximation of the average sales price per litre of wine (€/L).
	Raw output	Yield	Yield according to the official grape yield declaration in hectolitres per hectare (hl/ha).
2	Total Costs	Total cost per litre	Sum of operating costs, plus imputed wages of family staff divided by the total quantity of wine processed (€/L).
	Efficiency	Labour productivity	Total turnover divided by the number of workers (€/Worker).
	Productivity	Area productivity	Turnover per hectare of vineyard area (€/ha).
3	Profit and returns	Profit per litre	The operating result reduced by the imputed family wage, divided by the total quantity of wine processed (€/L)
		Operational result per year including family wages per hectare	Total operational result after the deduction of imputed family wage, divided by total vineyard area (€/ha)
		Return on assets	The operating result reduced by the imputed family wage, divided by the total capital employed (%).
		Return on equity	Total profit reduced by extraordinary results as well as imputed family wage, divided by the total equity (%).

Table 16: Hypothesis about the effect of region and size on the benchmark indicators

Layer	Benchmark	Hyp.	Factor	Hypothesis
1	Asset coverage	H1a	Region	No previous indications of how structural or market factors might affect asset coverage. No difference expected.
		H1b	Size	Larger companies are expected to have more debt, negative effect.
	Labour intensity	H2a	Region	Difference expected because of structural factor of degree of mechanisation that differs between regions.
		H2b	Size	Because of economies of scale through mechanisation, a negative relationship with size is expected. Larger wine businesses are expected to have lower labour intensity.
	Turnover per litre	H3a	Region	Difference expected because regions differ strongly in the market factor reputation and utilisation of distribution channels.
		H3b	Size	Because of the increasing utilisation of intermediaries with growing size, a negative relationship is expected. Larger wine businesses are expected to have lower turnover per litre.
	Yield	H4a	Region	Difference expected because of structural differences in climate and geology that affect yield.
		H4b	Size	No differences are expected.
2	Cost per litre	H5a	Region	Difference expected because regions differ in the degree of mechanisation.
		H5b	Size	Because of economies of scale through mechanisation, a negative relationship with size is expected. Larger wine businesses are expected to have lower cost per litre.
	Labour productivity	H6a	Region	Difference expected. The differentiating effects of price and mechanisation are expected to interact and partially offset. The effect will be smaller than for price.
		H6b	Size	Depends on price, yield and degree of manual labour that partially offset. While price decreases with size, the amount of manual labour decreases because of efficiency and mechanisation. Efficiency gains will outweigh the negative effect of price. Larger wine businesses are expected to have higher labour productivity.
	Area productivity	H7a	Region	Difference expected. The differentiating effects of price and yield are expected to interact and partially offset. The effect will be smaller than for price.
		H7b	Size	The total effect depends on price and yield. Because yield is expected to be independent of size, area productivity will decrease with size. Larger wine businesses are expected to have lower area productivity.
3	Profit per litre	H8a	Region	Indicators of profit and returns are tightly connected and depend on previous indicators of labour intensity, pricing, yield, cost, efficiency as well as productivity and their interactions. Some of these effects, such as pricing and costs, are expected to offset. For instance, smaller regions with higher costs benefit from higher prices and higher area productivity. Because of these offsetting-effects, region is not expected to have an effect on the indicators of profit and returns (H8a – H11a).
		H8b	Size	As for region, the effect depends on previous indicators and their interactions. Because costs (labour productivity) are expected to decrease (increase) with size efficiency gains are expected to outweigh the negative effect of area productivity. Size will have a positive relationship with the indicators of profit and returns (H8a – H11a).
	Operational result	H9a H9b	Region Size	No difference expected. Positive effect
	Return on assets	H10a H10b	Region Size	No difference expected. Positive effect
	Return on equity	H11a	Region	No difference expected.
		H11b	Size	Positive effect

Table 17: Partial Eta-squared values of Asset Coverage, Labour intensity, Turnover per litre and Yield

Source	Partial Eta-squared			
	Asset coverage	Labour intensity	Turnover per litre	Yield
Corrected Model	0.139	0.486	0.200	0.286
Intercept	0.815	0.801	0.605	0.889
Region	0.029	0.119 ***	0.130 ***	0.190 ***
Size Group	0.022 *	0.121 ***	0.005	0.013
Region * Size Group	0.096	0.067	0.057	0.047

* significant at $p < 0.05$; ** significant at $p < 0.01$; *** significant at $p < 0.001$.

Table 18: Partial Eta-squared results for Cost per litre, Labour productivity and Area productivity

Source	Partial Eta-squared		
	Cost per litre	Labour productivity	Area productivity
Corrected Model	0.356	0.229	0.170
Intercept	0.753	0.651	0.723
Region	0.211 ***	0.040 *	0.097 ***
Size Group	0.023 *	0.064 ***	0.006
Region * Size Group	0.060	0.049	0.038

* significant at $p < 0.05$; ** significant at $p < 0.01$; *** significant at $p < 0.001$.

Table 19: Partial Eta-squared results for profit per litre, operational result, return on assets and return on equity

Source	Partial Eta-squared			
	Profit per litre	Operational result	Return on assets	Return on equity
Corrected Model	0.233	0.245	0.246	0.211
Intercept	0.000	0.002	0.001	0.001
Region	0.032	0.037	0.040 *	0.048 *
Size Group	0.101 ***	0.106 ***	0.109 ***	0.092 ***
Region * Size Group	0.044	0.046	0.056	0.038

* significant at $p < 0.05$; ** significant at $p < 0.01$; *** significant at $p < 0.001$.

Table 20: Post-Hoc results for Asset Coverage, Labour Intensity, Turnover per litre and Yield

Region	Asset Coverage		Labour Intensity		Turnover per litre		Yield	
	mean (%)	Tukey-B	mean (h/ha)	Tukey-B	mean (€/L)	Tukey-B	mean (hl/ha)	Tukey-B
Franken	129	Rheinhausen	615 ^a	Rheinhausen	3.31 ^a	Baden	61 ^a	
Rheinhausen	130	Nahe	704 ^{ab}	Pfalz	4.01 ^a	Rheingau	62 ^a	
Nahe	136	Pfalz	709 ^{ab}	Wuerttemberg	4.67 ^{ab}	Nahe	64 ^a	
Baden	137	Wuerttemberg	860 ^{bc}	Nahe	4.68 ^{ab}	Franken	70 ^{ab}	
Mosel	139	Franken	937 ^c	Franken	4.93 ^{abc}	Wuerttemberg	75 ^{bc}	
Pfalz	139	Rheingau	973 ^c	Mosel	5.69 ^{bc}	Mosel	76 ^{bc}	
Rheingau	147	Baden	989 ^c	Baden	5.88 ^{bc}	Pfalz	81 ^c	
Wuerttemberg	159	Mosel	1155 ^d	Rheingau	6.36 ^c	Rheinhausen	85 ^c	
Size Group	mean (%)	Tukey-B	mean (%)	Tukey-B	mean (%)	Tukey-B	mean (%)	Tukey-B
5-10ha	130 ^a	20ha+	620 ^a	20ha+	4.23 ^a	5-10ha	70 ^a	
20ha+	133 ^{ab}	10-20ha	724 ^a	10-20ha	4.26 ^a	10-20ha	76 ^{ab}	
10-20ha	140 ^{ab}	5-10ha	937 ^b	5-10ha	4.98 ^{ab}	0-5ha	78 ^b	
0-5ha	149 ^b	0-5ha	1457 ^c	0-5ha	5.61 ^b	20ha+	80 ^b	

Table 21: Post-Hoc results for Cost per litre, Labour Productivity and Area Productivity

Cost per litre			Labour Productivity			Area Productivity		
Region	mean (€/L)	Tukey-B	Region	mean (€/wk*, Tukey-B	Region	mean (€/ha)	Tukey-B	
Rhein Hessen	3.38 ^a		Franken	61,280 ^a	Rhein Hessen	24,298 ^a		
Pfalz	4.16 ^{ab}		Baden	66,404 ^{ab}	Nahe	26,475 ^a		
Nahe	4.90 ^{bc}		Wuerttemberg	67,500 ^{ab}	Pfalz	29,471 ^{ab}		
Wuerttemberg	5.29 ^{bcd}		Mosel	67,550 ^{ab}	Franken	30,491 ^{abc}		
Franken	5.47 ^{cd}		Rheingau	70,220 ^{ab}	Wuerttemberg	31,329 ^{abc}		
Mosel	6.20 ^{de}		Nahe	70,437 ^{ab}	Baden	31,505 ^{abc}		
Baden	6.47 ^{de}		Rhein Hessen	73,791 ^{ab}	Rheingau	35,538 ^{bc}		
Rheingau	7.26 ^e		Pfalz	85,281 ^b	Mosel	37,909 ^c		
Size Group	mean (€/L)	Tukey-B	Size Group	mean (€/wk*, Tukey-B	Size Group	mean (€/ha)	Tukey-B	
20ha+	4.25 ^a		0-5ha	49,767 ^a	10-20ha	28,261 ^a		
10-20ha	4.43 ^a		5-10ha	59,279 ^a	20ha+	29,312 ^a		
5-10ha	5.53 ^b		10-20ha	73,800 ^b	5-10ha	29,416 ^a		
0-5ha	6.99 ^c		20ha+	92,270 ^c	0-5ha	38,905 ^b		

*wk = worker

Table 22: Post-Hoc results for Profit per litre, Operational Result, ROA and ROE

Region	Profit per litre			Operational Result			ROA		ROE	
	mean (€/L)	Tukey-B	Region	mean (€/ha)	Tukey-B	Region	mean (%)	Tukey-B	mean (%)	Tukey-B
Mosel	-0.03		Rheingau	19		Nahe	0.00		Franken	-0.04 ^a
Rheingau	0.02		Mosel	135		Franken	0.00		Nahe	-0.03 ^{ab}
Franken	0.07		Nahe	655		Baden	0.01		Rheingau	0.01 ^{ab}
Nahe	0.10		Franken	820		Mosel	0.01		Baden	0.01 ^{ab}
Baden	0.14		Baden	1,205		Rheingau	0.02		Mosel	0.01 ^{ab}
Wuerttemberg	0.24		Wuerttemberg	1,780		Wuerttemberg	0.02		Wuerttemberg	0.01 ^{ab}
Rheinhausen	0.24		Rheinhausen	1,972		Rheinhausen	0.04		Rheinhausen	0.03 ^{ab}
Pfalz	0.37		Pfalz	2,875		Pfalz	0.04		Pfalz	0.05 ^b
Size Group	mean (€/L)	Tukey-B	Size Group	mean (€/ha)	Tukey-B	Size Group	mean (%)	Tukey-B	Size Group	Tukey-B
0-5ha	-0.72 ^a		0-5ha	-4,584 ^a		0-5ha	-0.05 ^a		0-5ha	-0.07 ^a
5-10ha	-0.07 ^b		5-10ha	-445 ^b		5-10ha	-0.01 ^b		5-10ha	-0.04 ^a
10-20ha	0.34 ^c		10-20ha	2,552 ^c		10-20ha	0.04 ^c		10-20ha	0.03 ^b
20ha+	0.51 ^c		20ha+	4,053 ^c		20ha+	0.06 ^c		20ha+	0.08 ^b

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The Critical Competing Factors of the Armenian Wine Industry

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Abstract

◦*Purpose* – Recent archeological discovery and scientific tests indicate that Armenia is the country where winemaking originated. For this paper, we investigate the success, failure, influence and challenge factors of the Armenian Wine Industry within the context of the wine production, wine trade, and global competitiveness. These factors are considered determinants in the effort to develop a sustainable and competitive position in the global landscape. We analyze published literature, apply desk and field research with online survey and conduct structured interviews with key industry players to develop a framework that includes an analysis of the state of the industry. We summarize and analyze data collected through structural interviews with a focus group and through an online survey from a purposive sample of 131 participants who live in Armenia. We then synthesize and discuss the results and make recommendations.

This study investigates the success and challenge factors of the Armenian Wine Industry. They are considered determinants in the effort to build a sustainable and competitive wine industry. For this empirical developmental paper, we collect, summarize, and analyze the data, synthesize and discuss the results to make recommendations to stakeholders while contributing to the body of knowledge of general and international management within the context of global wine business competitiveness.

◦*Design/methodology/approach* – This research is based on various qualitative and quantitative methodologies including investigative triangulation techniques. We collect qualitative data primarily from structured interviews with a focus group consisting of Armenian wine industry experts and from an online survey of a purposive sample of 131 participants living in Armenia. We use descriptive statistical methods to analyze quantitative data. We triangulate the findings through academic desk/field research by applying interpretative techniques such as content analysis, coding, recursive abstraction, and approaches such as phenomenology. The final data used will be checked for validity, creditability, and reliability.

◦*Findings* – Table 1 shows the top ranking success factors being: 1. long history of winemaking in Armenia/ first country to produce wine; 2. the richness of the soil; 3. the unique climate with

wide-spanning micro conditions' variances; 4. the competitive e cost of production factors due to a low PPP (purchasing power parity index). Table 2. Shows the top ranking challenging – constraining factors being: 1. lack of investment in new machinery; 2. non-existent supply chain infrastructure; 3. lack of marketing activities; 4. of equal importance follow the “cost of growing grapes, quality of skilled labor and export constraints due to the fact that Armenia is a landlocked country and shipping is extremely expensive. Nevertheless, about 89% of the respondents believe that despite the challenges, Armenia can become a globally competitive wine-producing country.

Table 1. Critical success factors of the Armenian wine industry

Critical success factors	%
Long history of winemaking in Armenia/ first country to produce wine	13%
The soil	11%
The climate	11%
Cost of production	9%
The geographical position of the wine regions	8%
Armenia's position in the World Trade Organization	8%
The first country to produce wine	7%
Manpower readily available	6%
Relaxed export revenue taxes	6%
The distribution channels	6%
Production and supply capacity due to available arable land	5%
Domestically built production-related machinery and products	5%
The countries infrastructure	4%
Other	2%

Table 2. Challenging-Constraining Factors of the Armenian wine industry

Challenging – Constraining Factors	Average score ranked by factor of importance
Lack of investment in new machinery	10%
Non-existent supply chain infrastructure	9%
Lack of marketing activities	9%
Cost of growing grapes	7%
Quality of skilled labor	7%
Export constraints	7%
Country is landlocked, can only ship by air or by land over the Russian Federation	6%
The country's infrastructure	6%
Lack of subsidies from the government	5%
Grape production constraints in general	5%
No cooperation-collaboration among winery owners	5%
NO “Wine Quality” designation like France “AOC” or Italy “DOC”	5%

<i>Lack of wine business-related university programs</i>	5%
<i>Undercapitalization of industry players</i>	4%
<i>Business ownership (family owned)</i>	3%
<i>Lack of labeling regulation</i>	3%
<i>Other factors</i>	2%
<i>Lack of a positive diplomatic relationship with Turkey</i>	1%

Table 3. Question whether Armenia could become a competitive wine-producing country.

<i>Based on your knowledge about wine, can Armenia become a globally competitive wine producing country?</i>	%
<i>Yes</i>	89%
<i>Not sure</i>	10%
<i>No</i>	1%

This is a work in progress – The final results of this research will contribute to the body of knowledge of general wine marketing management, global trade and global strategy within the framework of wine production, operation, and global competitiveness.

◦Practical implications – This is the first study that investigates and contributes to the Armenian wine industry. Scientific literature on the topic is non-existent. An archaeological - scientific discovery has attested that Armenia is the birthplace of winemaking dating back 8,000 years. Consequently, the Armenian wine industry, being an emergent wine-producing country, strives to gain recognition and build a competitive advantage in the global wine business market place.

Key words: Armenian wine industry; wine competitiveness; critical success factors, critical failure factors.

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The Role of the Hub-Firm in Developing Innovation Capabilities: Considering the French Wine Industry Cluster from a Resource Orchestration Lens

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Abstract

◦*Purpose* – This paper explores how hub-firms in a regional industrial cluster orchestrate resources to enhance the innovation capabilities of member firms and how this role changes as innovation projects develop. The work advances our understating of how innovation-oriented clusters can drive the collaboration process, support the development of member capabilities, and achieve desired outcomes.

◦*Design/methodology/approach* – The research utilises exploratory case studies within an innovation cluster, where a hub-firm brings together different players for specific innovation projects. Using resource orchestration theory, the paper analyses six project cases to reveal the shifting roles and activities related to structuring, bundling and leveraging different resources for innovation capabilities particularly related to improved quality and reputation for the firms and region.

◦*Findings* – The study reveals the important role played by the cluster hub-firm in structuring, bundling, and leveraging resources to create and fund project teams. After project formation, a team member takes the role of orchestrator to further bundle and then leverage the resources to achieve desired outcomes for the team and the region.

◦*Practical implications* – This research enhances understanding of the hub-firm's role in a regional cluster not only in orchestrating resources to create collaborative innovation projects but how the role shifts over time. The work advances our understating of how innovation-oriented clusters can drive the collaboration process, support the development of member capabilities, and achieve successful outcomes. There are implications for practitioners for participating in and further improving the collaborative innovative process. This research

enhances understanding of the hub-firm's role in a regional cluster not only in orchestrating resources to create collaborative innovation projects but how the role shifts over time.

Key words: Regional cluster, hub-firm, innovation, resource orchestration theory, wine industry, Bordeaux wines

1. INTRODUCTION

Early research (Rothwell and Dodgson, 1991; Tidd, 1995) emphasised regional industrial clusters' crucial role in sustaining competitiveness. The regional characteristics created by universities, research and educational institutions, and other interrelated knowledge providers boost the innovation capabilities of the regional industry through knowledge spillovers and intensive personal contacts among cluster members facilitated by geographical proximity (Porter, 2000). Despite the importance of regional industrial clusters in improving the competitiveness of an industry or region, their role remains only partially examined beyond the technology sector. *Thus, this paper aims to understand how the hub-firm in the regional industrial cluster orchestrates resources to enhance the innovation capabilities of the member firms.* Our research demonstrates 'how' a hub-firm (*Inno'vin*) facilitates the creation of shared value between heterogeneous players, leading to diverse outcomes for members that jointly undertake longitudinal innovation projects in a Bordeaux wine cluster.

2. RESOURCE ORCHESTRATION IN REGIONAL CLUSTERS

Resource orchestration theory is a fitting theory for understanding how heterogeneous actors can be connected and managed in a cluster. Resource orchestration theory is the merger of two different yet complementary theories that focus on resource management (Sirmon et al., 2011): resource-based theory (Wernerfelt, 1984; Barney, 1991) and the concept of asset orchestration derived from dynamic capabilities theory (Teece et al., 1997). The resource-based view of the firm states that firms gain a competitive advantage by having resources that are heterogeneous, valuable, rare, inimitable and non-substitutable (Wernerfelt, 1984; Barney, 1991). However, the theory fails to explain how to deploy and configure those resources for gaining a competitive advantage. Resource orchestration theory addresses the gap by emphasising that a different combination of resources, capabilities, and managerial acumen are likely to give a firm/supply chain/network a competitive advantage (Sirmon et al., 2011; Chadwick et al., 2015; Liu et al., 2016; Gong et al., 2018).

According to the theory, a particular actor plays the leading role in orchestrating knowledge and resource use (Gong et al., 2018). Sirmon et al. (2007) developed a resource management structure based on managers' actions; here, the orchestrator links the heterogeneous actors in the cluster by *structuring*, *bundling*, and *leveraging* resources to create value for customers and competitive advantage. *Structuring* refers to the portfolio of resources (acquiring, accumulating and divesting), *bundling* refers to building capabilities (stabilising, enriching, and pioneering), and *leveraging* capabilities in the marketplace covers mobilising, coordinating, and deploying resources to create value (Sirmon et al. 2007).

Few studies have considered the role of the hub-firm in operations and supply chain management. Hughes (2018) considered bundling of resources at the firm level, the unit of analysis proposed by Sirmon et al. (2007). Expanding beyond the firm, Liu et al. (2018), Gong (2018) and Ketchen (2014) considered the role of orchestrator at the supply chain level while Cui et al. (2019) considered the community level. While inter-organisational networks can be nurtured through existing management structures, the resource orchestrator in the form of 'hub-

firm' must manage the network structure of the regional cluster (Ye et al., 2020; Dhanaraj and Parkhe, 2006). The hub-firm takes the key leadership role by structuring, bundling, and leveraging resources and capabilities between members of the cluster to benefit the regional cluster (Ye et al., 2020). However, there is still a gap in the literature that considers how the hub-firm takes the transformational role in developing innovation capabilities of the cluster members. Our research demonstrates 'how' this role facilitates creating shared value between heterogeneous players, changes over the project span, and leads to the different outcomes of the longitudinal projects that cluster members jointly undertake.

3. RESEARCH DESIGN

Within the context of *Inno'vin* and the regional cluster, we chose individual projects as the unit of analysis as these aligned with the research questions and conceptualisation of the study (Eisenhardt, 1989). Out of 100 collaborative projects, six met the selection criteria. The research team interview different representative of each project using a semi-structured interview protocol and adjusted to the characteristics of project representatives. The interview strategy aimed to gather a diverse range of views from team members on their respective project process and *Inno'vin*'s role project conceptualisation to completion.

4. RESULTS (to be presented)

CONCLUSION

This research aimed to elaborate on the research questions of the study and how the work improves our understanding of hub-firm's role in developing innovation capabilities of their cluster members. Building on resource orchestration theory (Sirmon et al., 2011; Gong et al., 2018), we considered the hub-firm's role in structuring and bundling resources in a regional cluster, how the role shifts to the project team leader, who subsequently leverage resources for developing innovation capabilities and resulting outcomes. Our results illustrate the role of different actors and the activities undertaken during structuring, bundling, and leveraging stages of the project and will be discussed in the presentation.

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Entrepreneurial Mannerisms and Success Impact – Exploring Effectuation-Based Environmental Perception

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Abstract

◦*Purpose* – Entrepreneurship is regarded as positive trait with entrepreneurs being characterized as opportunity seekers and finders. Underlying entrepreneurial decision making as well as causal relationships have experienced limited scientific analysis, especially in agricultural and wine context.

◦*Design/methodology/approach* – The hereby reported empiric study explores the environmental perception of decision makers in the German wine industry, leaning on the concept of effectuation. An analysis of whether external environment is perceived to be “opportunity rich” or “predominantly risky” allowed to analyse entrepreneurship and the impact of the environmental perception on business results.

◦*Findings* – The preliminary findings are that (a) an opportunity rich perception of the external environment illustrates effectuation and (b) that such entrepreneurial trait positively impacts business results

◦*Practical implications* – Entrepreneurs in this stagnant market outperform competitors applying effectuation and bricolage.

Key words: Entrepreneurship, effectuation, wine industry, environmental perception, bricolage, success factors.

1. ENTREPRENEURIAL BEHAVIOR AND DECISION MAKING

As early as the 6th century BC the Chinese philosopher Laozi stated that “only those who know their destination will find their way”. Today, the concept of “effectuation” characterizes such entrepreneurial behavior, whereas “causation” often refers to juxtapositioning corporate decision making (Sarasvathy, 2001, Reuber et al., 2016). Successful entrepreneurship is often refereed to be guided by ‘guts instinct’ rather than theoretically-founded principles, with entrepreneurs tending to make right decisions despite limited information and high uncertainty. With the improvement of future-oriented decision-making it is of considerable importance to further explore the nature of decision-making (Smolka et al., 2018). This holds especially true for an industry with high uncertainty due to dependence on nature – such as agriculture and therefore the wine production. An online survey of 315 German wineries explores

entrepreneurial spirit and implications. 2018 was a year with high yields in the German wine industry. As the German wine consumption is stagnant, more volume can be perceived as an opportunity (market growth) or a risk (price pressure). The survey explores environmental perception, organizational measures, and business impact.

2. PRELIMINARY LITERATURE REVIEW

Entrepreneurship research initially based on personal traits with proactiveness in decision-making, risk taking mentality, creativeness and innovativeness as entrepreneurial characteristics (Dana et al., 2016, Covin and Slevin, 1991, Gartner, 1990). Following, research opened for an organizational perspective (Antoncic and Hisrich, 2003, Amo, 2010, Dimitratos et al., 2014, Stopford and Baden-Fuller, 1994, Stevenson and Jarillo, 2007) but also additional entrepreneurial characteristics (Robles and Zárraga-Rodríguez, 2015, Dimitratos et al., 2014, George and Marino, 2011). Following research on entrepreneurship leans on strategic management and environmental perception to found the concept of effectuation where entrepreneurship symptomizes as a clever allocation of available means (Sarasvathy 2001). Notably, in the last decade the named theory has attracted a considerable amount of attention in research (Read and Dolmans, 2012, Dew et al., 2008).

A commonality of entrepreneurship research is that it claims a positive impact on performance as a result of seizing opportunities (Man et al., 2008, Dyer et al., 2008). Strategic management research, wherein external environmental assessment builds a cornerstone for decision making, is therefore also of high relevance (Papadakis et al., 1998, Ward, 2000). Strategic management builds on an in-depth analysis of the external and internal environment and a change of the environments (Miller, 1986, Bowman and Helfat, 2001). Strategy development thus begins by evaluating the internal and external environment (Miller, 1987, Papadakis et al., 1998). Again, entrepreneurship is defined as a positive interpretation of the environment combined with an ability to cope with dynamic environmental, often called with a French term “bricolage” (Zahra and George, 2002, Mallak, 1998, Servantie and Rispal, 2018).

In the current state of research, decision-making in agricultural businesses has not been widely emphasized (Seuneke et al., 2013, Inderhees, 2007). The agricultural sector is constantly exposed to high levels of uncertainty driven by the unpredictability of nature. In addition, climate change has created more inconsistencies which yet remain to be effectively managed (Bindi and Howden, 2004, Malheiro et al., 2010). As a result, further analyses on entrepreneurial behaviour and effectuation complements entrepreneurship theory and practical decisions in the wine industry (Haller et al., 2017).

3. DESIGN/METHODOLOGY/APPROACH

The underlying study explores the use of the effectuation approach in the wine world. The presumption is that winemakers apply effectuation-based decision making especially when facing agricultural, oenological or investment decisions. Further factors that might influence the decision approach include the sizes of the wineries, its strategy or positioning. An online survey was sent to more than 2,000 German wineries with a response of 295 useable interviews. The analyses provide insight on environmental perception, seized measures, and business impact.

4. PRELIMINARY FINDINGS

The preliminary findings are that (a) an opportunity rich perception of the external environment illustrates effectuation and (b) that such entrepreneurial trait positively impacts business results.

5. PRACTICAL IMPLICATIONS


Entrepreneurs in this stagnant market outperform competitors applying effectuation and bricolage.

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COVID-19 & WINE

Social Sustainability Orientation during the COVID-19 Outbreak: A Perspective on Italian Wine Industry.

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Abstract

◦*Purpose* – The study contributes to the debate on social sustainability in the wine industry with the examination of drivers and determinants of the orientation towards social practices and initiatives, during a period of systemic shock (COVID-19).

◦*Design* – The analysis is based on the collection of primary source data of 178 Italian wine firms; the methodology is mixed (qualitative and quantitative).

◦*Findings* – The wine firms consider social sustainability as an important driver for their development. Despite the pandemic economic impact, the orientation towards social practices and initiatives is generally consistent, and its magnitude seems to be related to the size of the firm.

◦*Practical implications* - Scholars should not overlook the social dimension of sustainability that is relevant for business. Monitoring links between orientation and behaviour is needed. To disseminate knowledge and share a common paradigm on social issues, building a network of firms driven by larger ones is highly recommended.

Key words: social sustainability, wine industry, performance, COVID-19.

Winery Tasting Room Experiences after COVID

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Abstract

◦*Purpose – The idea in this paper is to explore why some wineries have decided to maintain this new model even after the pandemic restrictions are fully lifted, and why some wineries are anxious to return to the operations ex-ante.*

◦*Design/methodology/approach – Semi-structured interviews with tasting room managers, directors of marketing, or others with the responsibility to make the decision on what model the tasting room experience will follow. The interviews use the means-end methodology to elicit the core values that drive the winery's decision and categorize those values into major categories. The purpose of this line of research is to determine the core values that wineries seek to exemplify through the tasting room experience and that drive the decision of what approach to take as pandemic restrictions are relaxed and, eventually, lifted.*

◦*Findings – This study is in the design phase. By the time of the conference, we expect to have preliminary results to present.*

◦*Practical implications – Winery tasting room managers (and others in charge of creating customer engagement) will be more successful if they explicitly identify and understand the core values they are trying to create in the winery experiences. This line of research has the potential to enhance the different essential models that wineries may follow and how the different models appeal to different sets of customers. In the process, they may better align the tasting room experience with their target markets.*

Key words: Tasting room, customer experience, appointments

1. ABSTRACT

The government-mandated response to the COVID pandemic in the U.S. resulted in many wineries changing the model for the customer experience in the tasting room, generally moving from operating on a first come, first served basis to requiring appointments for tastings. Guests moved from standing at a tasting room bar to seated at a table. Often, the winery pre-poured the wines for the tasting.

The idea in this paper is to explore why some wineries have decided to maintain this new model even after the pandemic restrictions are fully lifted, and why some wineries are anxious to return to the operations ex-ante. The first stage consists of semi-structured interviews with tasting room managers, directors of marketing, or others with the responsibility to make the decision on what model the tasting room experience will follow. The interviews use the means-end methodology to elicit the core values that drive the winery's decision and categorize those values into major categories.

2. INTRODUCTION, AND THE PROBLEM OR ISSUE UNDER CONSIDERATION

Previous research has examined the use of the winery tasting room to develop loyal customers (see examples below). Prior to the COVID pandemic, many tasting rooms tended to operate on a first come, first served basis, and tasting rooms could get to be hectic during peak times. While some wineries had tables available for a sit-down wine tasting experience, most customers were served while standing at the tasting room bar, which could get crowded during peak times.

When the COVID pandemic hit the United States, the winery tasting rooms in the major wine regions of California, Oregon, and Washington initially were forced to close. When they were allowed to reopen, wineries had to change the model for their operations. Of primary interest in this study are requirements for the tastings to be held by appointment only and while seated at tables. Of secondary interest are requirements that the wines be brought to the table pre-poured, that restricted capacity, and that set time limits on the tasting experience.

Numerous wineries discovered that the new model allowed them to offer the customers a better experience to the customers, with more time and space to present and explain the wines better than was possible with customers crowded around the tasting room bar. They often realized that they could make a more personal connection with the customers in the process, and many wineries have said that they intend to maintain the new model—or something closely resembling it—even after all restrictions have been lifted. Other wineries, however, do not effectively enforce the requirement to have an appointment and seem anxious to return to serving customers around the tasting room bar.

The purpose of this line of research is to determine the core values that wineries seek to exemplify through the tasting room experience and that drive the decision of what approach to take as pandemic restrictions are relaxed and, eventually, lifted.

3. RESEARCH BASIS (E.G. LITERATURE REVIEW, RESEARCH STREAM, ETHNOGRAPHIC ENGAGEMENT)

Previous research has examined the use of the winery tasting room to develop loyal customers. For example, Newton and Nowak (2006), Fountain, et al., (2008), and Bruwer, et al., (2013) all explore the connection between the tasting room experience and consumer or brand loyalty.

Based on the seminal study by Rokeach (1973) on the nature of human values, Gutman (1982) developed means-end research based on the assumption that values play a dominant role in guiding consumer choices and the assumption that consumers categorize products into sets or classes, depending on which features they emphasize and which they ignore, to reduce complexity of choice and allow them to compare non-identical stimuli.

Interviewees are generally asked to identify several (e.g., three) meaningful aspects of the experience at the heart of the study. After they provided the answers, researchers asked participants' a series of questions about each answer using the laddering technique, which assists participants in moving from concrete attributes to more abstract values. According to McIntosh and Thyne (2005), "rather than forcing [participants] into predetermined categories," means-end theory "enables them to define personal values and attitudes in their own terms and context."

4. DISCUSSION, INCLUDING RELEVANT LITERATURE REVIEW PROBLEM STUDIED

To the best of my knowledge, the means-end methodology has not been used to study the wine tasting room experience. This study also takes an unusual approach to means-end research in as much as we will be probing the values the designers of the experience seek to create rather than the values the consumers seek to obtain.

5. IMPLICATIONS AND RECOMMENDATIONS

Winery tasting room managers (and others in charge of creating customer engagement) will be more successful if they explicitly identify and understand the core values they are trying to create in the winery experiences. This line of research has the potential to enhance the different essential models that wineries may follow and how the different models appeal to different sets of customers. In the process, they may better align the tasting room experience with their target markets.

6. CONCLUSIONS, INCLUDING PROPOSITIONS FOR FUTURE RESEARCH

The conclusion is to be determined. We hope that this study provides the basis for developing a classification approach for tasting room experiences and that the classification system provides the groundwork for further research into how wineries may use the winery experience to engender customer engagement and enhance brand loyalty.

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SUSTAINABILITY

A Comparison of Prices and Ratings of Conventionally, Organically and Biodynamically Produced Austrian Wines

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Abstract

◦*Purpose* – This study investigates the “fine wine market” of Austria from a leading international wine guide’s point of view by comparing differences of ratings and cellar-door prices of biodynamic, organic and conventional wines featured in the 2015-2018 editions of the guide.

◦*Design* – A content analysis of the Austrian Gault&Millau wine guides 2015 to 2018 was performed. The analysed data – 8,667 different wines featured in the four mentioned editions – included the names of the wineries, the size of each company (vineyard surface in hectares), the designated region of origin, the wines rated and the points / ratings they received as well as the corresponding cellar-door prices.

◦*Findings* – Results show that the biodynamic wines featured in the Austrian Gault&Millau wine guides 2015 to 2018 (928 in total) are significantly better (higher) rated and have higher cellar-door prices than organic (1,180 positions) and conventional wines (the vast majority – 6,559 wines). No significant evidence was found concerning differences in the cellar-door prices of wines made from organically and conventionally produced grapes.

◦*Practical implications* – Results do not necessarily indicate that Austrian wines made from biodynamically produced grapes are better and more expensive than others. Rather than that, our findings imply that a sufficiently high number of leading Austrian wine producers apply biodynamic farming methods and, thus, average ratings and average prices of their wines are statistically higher. Outcomes of this study might mitigate certain prejudices of industry players and/or consumers towards organic and biodynamic wines and could also support winemakers and vintners in their decision-making processes concerning a possible conversion to an “alternative” production method.

Key words: biodynamic, organic, conventional, wine, wine guides, cellar-door price, quality, ratings.

Consumer Acceptance of Fungus-Resistant Grape Varieties (FRGV) – A Qualitative Analysis among Consumers in Germany

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Purpose – The purpose of this study is to investigate strategies that influence the acceptance of fungus-resistant grape varieties among consumers in Germany.

Design/methodology/approach – The survey is supported by data from semi-structured interviews. The interviews were conducted with focus groups of 48 consumers and were evaluated through content analysis.

Findings – The attractiveness of a grape variety is defined by four attributes. FRGVs can reduce the awareness gap to traditional grape varieties by using hybrid terms or by associating them with aromas or existing grape varieties. Sensory acceptance varies greatly depending on the target group and the method of vinification. In general, a fruity acid-sweet balanced style is preferred. The provision of information has a positive influence on acceptance and varies by target group in relevance and interest.

Practical implications – Consumer acceptance is possible by offering attractive grape varieties, target group-specific sensory profiles, and the provision of information about the advantages of resistant grape varieties within a storytelling campaign.

Keywords: fungus-resistant grape varieties, FRGV, Germany, Consumers, Sustainability

The Effect of Green Intellectual Capital on Sustainable Performance: Evidence from the Spanish Wine Industry

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◦*Purpose – Wineries are facing increasing pressures to improve their sustainable development, as the environment, the community and the local economy may be negatively affected by their activity. The wine industry is facing several exogenous factors that threaten its survival, such as: rising energy prices, water scarcity, increasing environmental awareness of stakeholders or climate change.*

This new context is characterized by requiring companies to make their productive activity compatible with the protection of the environment and the proper management of natural resources, allowing companies to realize that they must address the environmental challenge through the generation of new knowledge that will enable them to follow a sustainable development approach and, as a consequence, improve their competitiveness in the business environment of which they are a part. Thus, to accumulate and use their knowledge, companies adopt different approaches that are manifested through the different dimensions of Intellectual Capital (IC), these are: human capital, structural capital and relational capital. In this sense, the IC that incorporates environmental aspects, Green Intellectual Capital (GIC), was introduced in 2008, becoming an incipient field of study at present.

The motivation for this research is based on two basic premises. First, the correct management of GIC allows companies to identify their level of environmental responsibility, as well as to improve the Sustainable Performance (SP) of wineries. Secondly, GIC facilitates the improvement of SP through the knowledge gained, which is embodied, among other aspects, in Green Innovations (GI). Based on these ideas, the research aims to answer the following research question: Does GIC influence the SP of wineries? and does GI mediate the relationship between these two variables?

◦*Design/methodology/approach* – The research follows a quantitative approach, using the second generation Partial Least Squares (PLS) multivariate analysis technique, i.e. variance-based Structural Equation Modelling (SEM). This methodology allows us to represent, estimate and test a theoretical model of linear relationships between variables that may be unobserved, i.e. latent variables, as we want to test in our research.

A structured questionnaire based on the literature review was used for data collection, with the aim of achieving greater coverage and making the results more representative. First of all, the content of the questionnaire was validated by a pre-test, in which Spanish experts in the strategic management of wineries participated. Then, the survey was distributed through the online survey tool Qualtrics in the last four months of 2021. The fieldwork provided 202 usable surveys (Spanish wineries), representing a response rate of approximately 5%.

◦*Findings* – The research shows the existence of a positive and significant relationship between GIC and SP, as well as the mediation of GI in this relationship.

◦*Practical implications* – The study contributes to the literature in several ways. First, GIC represents a new starting point for incorporating environmental practices in organizations, as GIC overcomes the shortcomings of conventional approaches to environmental management systems by considering the intangible assets of organizations. Secondly, the results presented identify a number of practices for managers to follow in order to develop effective environmental management. Third, no previous research addressing GIC in the wine industry has been identified.

The work is also noteworthy for its important practical implications, since it shows the need to improve the GIC of winery managers in order to improve SP and GI. On the one hand, to improve Green Human Capital (GHC), wineries can develop codes of good environmental practices, organize training and environmental awareness sessions, attend seminars and workshops to improve their green knowledge, as well as foster motivation and a sense of belonging to the group through the integrity of the environmental practices of winery managers. On the other hand, to foster Green Structural Capital (GSC), wineries can develop circular economy programs, IT systems to measure their carbon and water footprint, eco-efficient facilities, a brand linked to sustainability in foreign markets, certifications that endorse their environmental commitment, a flat organizational structure through which green knowledge flows, a suggestion box to convey suggestions to management, an organizational culture built on the pillars of sustainability, as well as investments in R&D&I. Finally, the Green Relational Capital (GRC) of wineries can be fostered through various alliances between industry organizations to improve their green knowledge.

Tasting Grid and Sensory Descriptors of Natural Wines.

A Semantic and Semiotic Analysis

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Abstract

◦*Purpose* – The emergence of “natural wines” shows a health and ecological awareness and changes in tastes and demand. This emerging culture, which raises the issue of reducing intrants in wine, renews the question of oenological description and focuses on the social issues of today’s viticulture.

The communication problem of natural wines terminology and discourse involves not only the players in the wine field but also consumers who are experiencing with new taste qualities. Descriptions adapted to the organoleptic specificities of these wines and to the various communication situations in which they take place becomes necessary.

◦*Design/methodology/approach* – To serve this purpose, this project relies on semiotic and semantic studies on the discourse of sensible experiences, the relations between language and perception (Bordron 2000, 2002, 2010; Author, 2012, 2015, 2018; Petitot, 1985; Valentin, 2003) and on discursive genres (Author 2014, 2018). It is enriched by research in sensory analysis devoted to the typical image of wines and which offers interesting perspectives for the typology of wines (Gros, Lavigne, Thibaud, Gammacurta, Moine, Dubourdieu, Darriet, & Marchal 2017).

The adequacy of current terminology and discourse on natural wines thus implies the construction of a lexical semantics adapted to these types of wines, capable of meeting the evaluation and discrimination requirements of professionals and facilitating the understanding of these wines by the general public.

The analysis of these descriptors must take into account the organoleptic specificities of these products, current tasting protocols and lexical grids as well as the descriptive rhetoric used in the various situations and communication media.

To carry out this project, we will adopt a double methodology: 1. A contrastive linguistic and semantic analysis through which we will identify, on the various discourse on natural wines (tasting comments, websites and blogs), the terminology used to describe them. This terminology will be compared to that used to describe conventional wines. 2. A semiotic analysis in order to identify gustatory structure of natural wines.

◦*Findings* – The first studies show that nature winegrowers use transgressive communication strategies that break the codes of classic tasting and wine culture: unusual names and labels, tasting web comments on blogs and social networks... All this desecrates wine and creates a close relationship with consumers.

◦*Practical implications* – This project proposes to meet the socio-economic actors' expectations in terms of communication and promotion of natural wines. Finding an adapted analysis grid and terminology will make it possible to improve their capacity to “put these wines into discourse” and to make them better understood by everyone.

Key words: Natural wines, Communication, Terminology, Tasting

Consumer Willingness to Pay for Environmental Characteristics of Australian Wine

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Key words: wine, sustainability, willingness to pay, eco-certification, environment, Australia

1. INTRODUCTION

In line with other developed nations Australia has seen an increasing trend towards greater health consciousness, both mental and physical health wellness. This trend has manifested in part by increased consumer purchases of food and drink with ecologically/environmentally friendly characteristics over the past few decades. This change in consumer preferences and attitudes has resulted in the development of a wide range of environmentally friendly consumer goods and an increase in certification of these goods. There are a wide range of eco-certifications covering production of goods more generally to more specific certifications of specific goods, like wine. These wine certifications have grown in recent times (Moscovici and Reed, 2018) but consumer awareness of them is low (Schaufele & Hamm, 2017). There are five identifiable eco-certifications in wine: biodynamic, Fairtrade, organic, natural, and sustainable.

2. PRELIMINARY LITERATURE REVIEW

The literature indicates that there is a market for eco-certified wines, with multiple studies finding that consumers are willing to pay price premiums for wines with: organic certification (D'Amico et al., 2016; Di Vita et al., 2019; Fanasch & Frick, 2020; Gustafson et al., 2016; Tait et al., 2019, Remaud et al., 2008; Gassler et al., 2019); with sustainable attributes (Pomarici et al., 2018; Tait et al., 2019); with no added sulphites (NAS)/natural wine (Amato et al., 2017; D'Amico et al., 2016, Costanigro et al., 2014); with Fair Trade certified wine (Niklas et al., 2017); and for wine with pro-environmental characteristics generally (Barber et al., 2016).

3. RESEARCH PROBLEM

The aim of this study was to survey wine consumers in Australia about their socio-economic characteristics, quantify their consumer knowledge of wine and discover their willingness to pay for wine with five different environmental wine certifications: biodynamic, Fairtrade, organic, natural, and sustainable.

4. METHODOLOGY

An online survey was developed to capture socio-economic, attitudinal and willingness to pay data from approximately 500 wine consumers in Australia. A total of 454 complete and useable responses were used for the analysis. Pearson's chi-square test and Kruskal-Wallis H test were used to examine whether the willingness to pay for different types of certified wines significantly differ based on demographic characteristics and past purchasing behaviour.

5. FINDINGS

Preliminary findings indicate that consumers often buy pro-environmental products. The majority have a positive (greater than zero) willingness to pay for biodynamic, fair trade, organic, natural and sustainable wines. The main factors influencing eco-certified wine purchase decisions by Australian consumers are age, gender, presence of eco-certification on the label, environmental attitudes, and past purchasing experience. Surprisingly, income, education, marital status and previous wine knowledge did not positively influence willingness to pay for eco-certified wines.

6. CONCLUSIONS AND IMPLICATIONS

The study results confirmed some a priori expectations that are supported by the literature whilst some other important factors in the purchasing decisions of consumers were not borne out by the data. It is clear that a wide variety of socio-economic factors, knowledge, information and motivational factors all affect the decision of Australian consumers to pay a premium for an eco-certified wine compared to a conventional one. It is also important to note that the main factors influencing wine purchase decisions are price, age, income, education, environmental attitudes, previous wine knowledge and past purchasing experience. Contrary to a priori expectations income, education, marital status and previous wine knowledge did not positively influence WTP for eco-certified wines. Unless the environmental consciousness of the consumer is very high, eco-certification is unlikely to be more important than the listed variables in their decision-making process.

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Brand-Equity and Organic Label in Consumer's Choice of Wine

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One of the goals of the European Union's "Farm-to-Fork" strategy is to promote organic farming for reaching at least 25% of agricultural land under organic. In Italy, the organic vineyard surface area is increasing, counting in 2020 around 18% of the total vineyard. Consequently, the production and sales of organic wine have shown a considerable positive trend.

In literature contrasting results are emerged regarding consumers' preferences for organic wine. Some scholars have highlighted the positive impact of organic certification on consumers (Mueller Loose & Remaud, 2013; Schäufele and Hamm, 2017), and found a higher willingness to pay for organic wine (Wiedmann et al., 2014; Di Vita et al., 2019). Boncinelli et al. (2021) have shown that organic wine consumers are a small market segment and that, generally, consumers do not pay attention to organic certification on a wine label, compared with other attributes. However, other studies have shown that consumers may perceive wine labelled as organic to be of lower quality or constituting less value for money (see, for example, Delmas and Grant, 2014; Abraben et al., 2017).

The brand plays an important role in attracting consumers since it can be viewed as a sign of quality (Brochado and Oliveira, 2018). The strength of a brand is associated with the concept of brand equity. Aaker (1991, p. 15) defines brand equity as "a set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to that firm's customers". There, we can classify the wine brand as a high-equity and low-equity brand based on perceived quality and brand benefits and value (Chandon et al., 2000).

Although a brand is something clearly recognizable in food product typologies, the concept of the brand in wine is not so clear and generates a degree of confusion among consumers (Viot

and Passebois-Ducros, 2010). Denomination of Origin (DO) is one of the elements that constitute the “brand constellation” for wine (Lockshin and Hall, 2003). DO acts as a collective, global brand and often it is even better known than the real individual brand (Charters et al., 2013).

Starting from this specification, in this study we intend to investigate the impact of the organic label on the consumers’ purchasing behaviour, considering the wine brand equity. In other words, we believe that organic label has a different impact in terms of taste perception, quality perception, purchase intention and willingness to pay if the wine is labelled by a high or low-equity DO. The impact of the organic claim on different type of brands were already explored by previous studies for different food products (Larceneux et al., 2012; Bauer et al., 2013), but little is known related to the wine market.

The experimental design is based on a between-subjects 2 (brand equity: low, high) \times 2 (organic label: present, absent) experiment with four treatments. The respondents were randomly assigned to one of the four treatments. The two wine DOs with different levels of power, namely a high-equity brand and a low-equity brand, were selected in a pre-test with 101 respondents. As a measure of brand equity, we used and adapted the four-item Overall Brand Equity (OBE) scale of Yoo and Donthu (2001).

To test our hypothesis, we administrated an online questionnaire on 451 Italian wine consumers. To measure the individual perceived quality, a four items scale was taken from Bao et al. (2011). Taste perception was measured with two items scale taken by Wei et al. (2018). Purchase intention was disclosed with a three items scale adopted from Kozup et al. (2013). A three items scale used in Netemeyer et al. (2004) was adopted to measure a willingness to pay a price premium. Moreover, subjective wine knowledge, inclination toward organic products and wine involvement were collected. The last section of the questionnaire concerned sociodemographic information, occupation, and household income.

Univariate Analysis of Covariance (ANCOVA) was conducted to examine the impacts of the organic label and different equity brands on the four dependent variables considered. The results reveal that organic label has higher positive effects on perceived quality and willingness to pay for the low-equity brand than for the high-equity. Moreover, if for a low-equity brand the presence of the organic label improves the taste perception, a high-equity brand wine with the organic label is perceived as less tasty than a non-organic one.

This study discovers new insights into the literature on wine purchasing behaviour, in terms of how organic label has an impact according to different levels of brand equity. The results of the study may have managerial implications for winemakers. If a specific wine is recognised as a low-equity brand, the producer has to keep in mind that the organic label can increase the consumer’s overall perceived quality and willingness to pay for that wine.

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Evaluating Sustainability Practices in the Chilean Wine Industry

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Abstract

◦*Purpose – To study the perception of sustainability among Chilean wineries and their behaviour in terms of certification.*

◦*Design/methodology/approach – Multiple case study involving 12 wineries comprehending six certified wineries and six non-certified wineries*

◦*Findings – While the perceptions about sustainability and the impact of certification are similar across wineries, non-certified wineries believe sustainable practices affect their costs.*

◦*Practical implications – More information about operational costs for sustainable practices should be available together with subsidies to implement them.*

Key words: Sustainability, Chile, Certification

1. INTRODUCTION

Chilean wineries have been certifying their sustainability practices through different norms and regulations. However, there are no evidence of the interpretation of sustainability and the related change in the practices of the wineries after certification. This study evaluated the impact of certification comparing 12 Chilean wineries: six certified wineries and six non-certified wineries.

2. LITERATURE REVIEW

Szolnoki (2013) was one of the first scholars that evaluated the impact of sustainability in wine. He suggested that sustainability comprises three concepts: economic, social and environmental, but these concepts are not adopted equally across wineries. For example, small wineries only focus on environmental aspects and mostly associated with organic or biodynamic practices while large wineries consider the whole value chain. Spielmann (2017) suggest size is an important factor on sustainability practices.

In terms of sustainability in Chile, there are not large scale (or research-focused) studies like Szolnoki (2013). In 2015, Chilean wine industry adopted a certification on sustainability that is voluntary and aims to promote sustainable practices in wineries (Código Nacional de Sustentabilidad de la Industria Vitivinícola Chilena, 2015). The certification separates wineries business in three areas: green, red and orange. Green area is related with sustainable management of vines (soil management, water management, energy management, plant management. Red area involves cellar operations (energy and water conservation, waste management and recycling). Orange addresses social responsibility practices (ethics, labour management, community activities, marketing and consumers). Wineries need to pass the certification in the three areas through an audit. Wineries need to satisfy the requirements at least three months in advance of the certification date and requirements are increasing in every renewal, which occurs every two years. At the time of the study, there are 56 certified wineries. However, there are no empirical studies of the impact of certification on the performance of the wineries.

Our research question is “What are the perceptions of sustainability and its certification on the Chilean wineries?” Given the multi-dimensional focus of the certification in Chile, e.g. green, red and orange areas, the evaluation of the impact on performance should consider multiple areas of the participating wineries.

3. RESEARCH METHODOLOGY

The research methodology is descriptive and exploratory using case studies. We studied 12 wineries: six with certification and six without certification. We had in-depth semi-structured interviews with a member of staff from each winery associated with the certification process for the certified wineries, or related with production and/or management for non-certified wineries. The certified wineries in the study were Concha y Toro, Luis Felipe Edwards, Montes, Santa Rita, Siegel, Viu Manent. The non-certified wineries were Acacia Caven, Don Clemente, EOVI Marchigüe, Estampa, San Guillermo and Veramonte. In terms of size, certified wineries

were large and medium size while non-certified were small size. Thus, the results may not be fully comparable.

4. PRELIMINARY FINDINGS

We present in this paper some initial findings. More than 80% of the wineries consider that sustainability involves “promoting the economic and social development while respecting the natural ecosystems and sustaining the environment.” From the economic perspective, sustainability consists of “continuous and stable growth in terms of cash flows” for the certified wineries, which are large established wineries, but the non-certified wineries have multiple definitions from “profits reflect business activities that general social benefits” to “long lasting wealth”. From the social perspective, 50% of the wineries consider sustainability as “creating opportunities for dialogue to create value that benefit the communities”, 25% believe is “the integration of the workers within the community” and the rest suggest, “actions related with the community”. From the environmental perspective, wineries consider sustainability as “developing strategic plans with concrete actions that are measurable” (50%) or “managing the natural resources, waste and emissions” (50%).

From the performance implications, all respondents believed that sustainability increases sales (83%), improves business model (67%), improves the perception of customers about the winery (91%) and shows concern for the environment (100%). Non-certified wineries only major disagreement is with the impact in terms of business model as they were not convinced on its impact on the business model. The main reason is the high costs involved in obtaining a certification, as well as practices, that can affect profits.

5. CONCLUSIONS AND MANAGERIAL IMPLICATIONS

Certification has become attractive for many wineries but there are still more than 70% of wineries, many of them small, without certification in Chile. The preliminary findings suggest there are similar interpretation of sustainability across the industry. While certifying sustainability is part of good management for large wineries, small wineries consider a cost that may affect profitability, especially when profitability can be achieve through higher product quality (Kunc, 2007). Therefore, we recommend providing more information about the operational costs associated with sustainable practices together with subsidies to implement them.

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PRICE & REPUTATION

Climate Change News and Fine Wine Prices

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INTRODUCTION

Investment-grade fine wines have garnered attention from investors and researchers alike as they appreciate in value over time not only because the quality of the wines appreciate over time but because they are also influenced by macroeconomic fluctuations (Masset and Weisskopf, 2010; Le Fur et al, 2016; Jiao, 2017). With significant increases in concerns regarding global warming, researchers have begun to highlight the impact of global warming with the wild swings in temperatures and accompanying natural disasters on the taste, quality and prices of wines. In contrast to prior studies, our study investigates whether decreasing or increasing climate risk as captured by positive or negative news sentiments on climate change affect fine wine prices.

1. LITERATURE REVIEW

One of the first empirical studies that explores the relationship between temperature changes and fine wine prices is that of Ashenfelter, Ashmore and Lalonde (1995). The authors provide evidence indicating that conditional on lack of precipitation, higher temperatures positively impact the prices of Bordeaux Grand Crus. Jones and Storchmann (2001) building on this earlier work examine how weather changes impact grape composition and subsequently fine wine prices while Ashenfelter (2010) provides evidence of a positive correlation between the weather and the quality and prices of Bordeaux wines. With climate change concerns increasing over time, researchers began exploring climate changes' impact on wines from other regions around the world. Haeger and Storchmann (2006) show that the prices of Pinot Noirs in America are primarily determined by changes in climate and precipitation. Oczkowski (2016) provide supporting evidence for the importance of weather for the prices of Australian wines. These aforementioned studies largely use historical data pertaining to climate change in order to study its impact on price fluctuations of fine wines.

2. PROBLEM FORMULATION

Our study uses text-based measures of climate risk (i.e., high and low) in a monthly time series format as developed by Engle et al (2019). Low and high climate risk are captured by the changes in positive and negative news sentiments respectively as published in the Wall Street Journal and in additional reports on climate change published by leading organizations such as, the IPCC, the IMF, among others. Data on fine wine prices are obtained from the London International Vintners Exchange (Liv-ex). For our initial analysis we explore two wine indices namely (i) Liv-ex 1000 (wines from France and around the world) and (ii) Liv-ex Investables (Bordeaux wines only). Additionally, we utilize the Fama-French (FF) three factor model which include along with the market risk factor, the SMB and HML risk as controls.

We split our sample by examining how positive and negative news impact fine wine prices before and after 2015. We use 2015 as the breakpoint in our analyses because the United Nations Framework Convention on Climate Change created the Paris Climate Agreement to focus on reducing limiting greenhouse gas emissions to combat global warming in 2015. We anticipate that this new agreement could impact news sentiments around climate risk and provide guidance for future research.

3. ENVISAGED RESEARCH METHODOLOGY

We aim to explore whether decreases or increases in climate risk (as captured by changes in positive or negative news sentiments) affect fine wine prices. Generalized least squares regression is used with the Prais-Winsten Cochrane-Orcutt procedure to ensure no serial correlation exists in our residuals. Our independent variable is lagged by one month for our preliminary analyses. Future analyses will incorporate wine indices from other regions around the world.

4. PRELIMINARY FINDINGS

- 2015 and after:
 - Decreasing climate risk positively affects the Liv-ex Investibles and Liv-ex 1000 indices, while increasing climate risk has a negative impact. These results hold good for increasing climate risk, even after the FF factors were added to the model
- Prior to 2015:
 - Decreasing climate risk has a negative impact on the Liv-ex 1000 index only. These results hold when we add the FF factors.

CONCLUSION

Our findings have significant implications for investors of fine wine, in addition to consumers. It also provides evidence that climate risk impacts both consumers and investors alike. It also suggests that investors of fine wine could benefit from news reports and make decisions

regarding risky vs less-risky times to invest in fine wine, while consumers could potentially take advantage of negative news reports on climate change to purchase fine wines for consumption at cheaper prices. Also incorporating wines of other appellations in our analyses could give investors and consumers insights into specific wines to focus on. Our findings suggest that text-based measures of climate change extracted from news reports are more reliable in predicting levels of climate risk than existing temperature data, as they are likely give insights into climate risk far more in advance, thereby helping investors and consumers make timely decisions regarding the purchase, investment and consumption of fine wines.

Neither from the Old World, nor from the New World: Any Chance to Get a Gold Medal?

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Abstract

◦*Purpose* – New wine producing regions can become competitors for well-established regions of the Old World and New World. In such a context, how wines from these regions are rated by experts, and especially how these wines perform in international wine contests, is a key aspect, especially to gain recognition on the international markets. However, how experts rate them remains, to our knowledge, unknown. We investigate this issue that is relevant for the entire wine value chain: from consumers and buyers who may be attracted to awarded wines coming from less known countries to producers who may find an incentive to submit wines produced from less-known grapes and benefit from the medal or award as a private quality signal.

◦*Design/methodology/approach* – We analyze empirically more than 6,000 wines which get medals (bronze, silver or gold) in a highly reputed French competition. Thanks to the estimation of several grade equations, we identify which countries of origin increase or decreases the probability of obtaining a gold medal, especially for wines from the Historic World, the former Soviet-dominated countries, and the Balkan countries.

◦*Findings* – Our preliminary results show that for some less-known wine producing countries, the score given by experts is significantly lower than for well-established wine regions.

◦*Practical implications* – Our analysis suggests that trying to get awards or medals in international wine competitions is not systematically relevant for wine producers originating neither from the Old World nor from the New World. The creation of dedicated competitions could be an option.

Keywords: Wine experts, grades

Informational Value of Peers' and Experts' Ratings on Perceived Quality: Stated and Revealed Preference of Wine Consumers in a Non-Hypothetical Home Use Test Setting

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Abstract

◦*Purpose* – This paper aims to examine the extent to which the perception, evaluation, and willingness to pay for wine of wine consumers are influenced by their exposition to wine quality information in a home use-test setting.

◦*Design/methodology/approach* – As an alternative to laboratory tests, we designed a remote sensory evaluation using a home-use-test (HUT) setting and an experimental online auction. We expose untrained regular consumers of red wine ($n=300$) from France and Spain to both positive and negative word-of-mouth (either peers' or experts' ratings) in a home-use test setting. To unveil the stated and revealed preferences of the participants, we combine the use of emotion monitoring with Facereader and the use of free comment for a word-based sensory description of four red wines (from Bordeaux and Rioja). To determine the impact of the information provided on their willingness to pay, we conduct online a non-hypothetical design, the Becker, De Groot, Marschak (BDM) experimental auction method. Thanks to the questionnaire we also reconstruct the purchasing and consumption patterns of the respondents.

◦*Findings* – Some results are yet to be developed to determine the informational value of peers' and experts' ratings to wine consumers.

◦*Practical implications* – Our interdisciplinary study involving experimental economics, sensory sciences, and psychology contributes by presenting the first protocol for conducting a

combined HUT, online auction as well as implicit and explicit measures of the sensory and hedonic analysis. It is also the first exploratory study developing a covid-proof experimental design for wine.

For the industry, it is valuable to know what source of quality information has more value for the consumers.

Key words: Incentive compatible experiment, willingness to pay, stated and revealed preferences, positive and negative word of mouth, perceived quality

Why Winning a Gold Medal Help or Hurt? The Effect of Wine Jury's Expertise on Purchase Intentions in a Retail Context. A Mediation Analysis

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Abstract

◦*Purpose* – Because wine awards serve as key quality indicators for consumers, those are commonly displayed on bottles in the retail space to reduce perceived risk related to the complexity of such a product and help purchasing decisions. However, very little is known about the effectiveness of awards like medals that are awarded by a jury of either consumers or experts. This paper aims to examine whether and why experts- versus consumer-based awards help or hurt purchase intentions.

◦*Design/methodology/approach* – We conducted an experiment with a sample of French consumers ($n = 196$), in which we compare the effect of the awards given by a jury of consumers versus experts on consumers' responses. We specifically tested whether and why awards influence purchase intentions using a parallel mediation analysis.

◦*Findings* – Experts' awards on a bottle of wine increase purchase intentions compared to a bottle with a consumer-based award. That is because consumers perceive a wine with an expert-based award to be of higher quality, which in turn enhances purchase intentions. However, experts' awards can backfire because consumers perceived such a jury as being psychologically distant from themselves.

◦*Practical implications* – Our paper sheds light on why experts' awards help or hurt purchase intentions and contribute to the literatures on wine awards and psychological distance. Managers must keep in mind that awards delivered by professionals may either lead to positive outcomes — because they prompt quality perceptions — or negative ones, because of the feelings of distance triggered by professionals.

Keywords: Wine Awards, Jury Expertise, Quality Perception, Psychological Distance, Purchase Intentions



HEALTH

Low-No Alcoholic Wines as a Growing Product Category? Examining the Sober-Curious Movement in America

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1. INTRODUCTION

Low and reduced-alcohol beverages, such as reduced-alcohol wine, are becoming increasingly popular in many countries, with different factors driving a change in the beverage market. One of these trends is the “Sober-Curious” movement in the US, as well as other health-motivated or drinking moderation movement in parts of Europe and Australia. Does this new trend indicate potential growth in the low-no alcoholic wine category, and can the industry find a way to produce these types of wines so they actually taste good and are desired by consumers?

2. PRELIMINARY LITERATURE REVIEW

Wine Intelligence Report (2016) suggests increasing consumer demand for low-alcohol wine, with high acceptance in Germany and significant growth potentials in the U.S. and Canada. In Australia, research on consumer demand for low-alcohol wine (Saliba et al., 2013) shows a 16% acceptance of higher consumer interest in low alcohol wine, rising to 40% if the taste were the same as for standard wine products. In France, the government has suggested making January a month to abstain from alcohol for health reasons (Tidley, 2019).

In the US, the “sober-curious” movement is encouraging an alcohol-free lifestyle, or drinking less in general, as a pathway to a healthier existence (Gibson, 2019). It was apparently started by Millennials as a generational trend when they witnessed family members suffering from addiction (Groth, 2019). This, coupled with their focus on healthy food and living, helped propel the movement into the limelight. People became curious about how they would feel sober in the morning, instead of waking up with a hangover. This concept was picked up by the media, with the growth of addiction-based reality TV shows and the rise of social media platforms that stressed the positive impact of being sober, such as #soberissexy on Instagram with more than a half a million posts.

There are several outcomes of the sober-curious, including a rise in the number of Americans requesting low and no alcohol wines while shopping in major supermarkets (P. Markert, personal communication, July 2019). The growth of “mocktails” is also increasing (Ramirez, 2019). A positive outcome (Groth, 2019) is that people who have been hiding alcohol addiction from others, now have public support as they embrace “sober hip.”

3. RESEARCH QUESTIONS

- 1) What are the characteristics of US consumers who are drinking less wine?
- 2) Why are they drinking less wine?
- 3) Do demographics or lifestyle have an impact on consumers who are drinking less wine?

4. METHODOLOGY

An online survey instrument was developed to collect information regarding American wine consumer behaviors and demographics. The survey company, Dynata, was hired to gather a quota sample of American wine drinkers from all 50 states, aged 21 or older. The survey was pilot tested and minor revisions were made based on the feedback. It was launched on a Survey Monkey platform in the Fall of 2019 over a two-week period. In the end, a total of 1221 useable responses were received regarding the independent variable of drinking more, less or the same about of wine. Preliminary data were analyzed using the statistical function in Survey Monkey.

5. PRELIMINARY FINDINGS

For the final sample of 1221 US consumers, when asked the questions: “In general, are you drinking the same, more, or less wine, beer, spirits?” the results show that 57% are drinking the same amount of wine, 10% are drinking more wine, and 33% are drinking less. The percentages for beer and spirits were similar, but a higher percentage of wine drinkers were drinking the same about of wine compared to beer and spirits. See Table 1 below:

Table 1: In general, are you drinking the same, more, or less of the following?

	Drinking Same	Drinking More	Drinking Less	Total Sample
Wine	57%	10%	33%	1221
Beer	53%	9%	38%	1219
Spirits	53%	8%	40%	1219

Interestingly, there was no significant difference in terms of gender. The sample included 52% women and 48% men, which is slightly higher than the US wine consumer average of 56% women to 44% men (WMC, 2018).

5.1 Characteristics of US Wine Consumers Now Drinking Less Wine

In terms of characteristics of the sample, significant differences were found on several motivational and lifestyle measures between US wine consumers who reported drinking less now compared to those who continue to drink the same or more wine. These include:

- **Wine Knowledge:** Consumers who are now drinking less wine are much more likely to label themselves as Novices that know very little about wine, compared to those consumers who continue to drink the same or more wine.
- **Wine Satisfaction:** Consumers drinking less are much more likely to disagree or strongly disagree with the statements that wine brings delight to their lives and that being a wine lover bring satisfaction, compared to other consumers.
- **Exercise Lifestyle:** Perhaps surprisingly, consumers drinking less are less likely to work out at a gym or engage in nature activities such as hiking, compared to other consumers.
- **Socialize Lifestyle:** Consumers drinking less wine are much less likely to socialize with friends and family compared to other consumers.

6. CONCLUSIONS/NEXT STEPS

Preliminary results suggest that some American wine consumers are drinking less wine, and it appears that the majority are not as involved in wine or as knowledgeable about wine as those who continue to drink the same amount or more. This suggests that less-involved and motivated wine consumers are more likely to decrease their wine consumption over time.

It is not clear as to the reasons why they are now electing to drink less wine, but it could be due to the popular sober-curious trend that is sweeping the US economy, and has also been witnessed in parts of Europe and Australia. Additional research needs to be conducted in order to understand why consumers are electing to drink less wine.

More importantly, the wine industry needs to investigate whether or not providing low and/or no alcoholic wine as a growing product category would be attractive to consumers. Preliminary evidence of higher sales rates of non-alcoholic wine in US grocery stores, as well as other parts of the world, indicate that this could be a promising new product category for the global wine industry to consider – especially since wine grapes would still be used to produce the wine, thus providing economic sustainability to thousands of small wineries and vineyards around the world, and perhaps increasing the health of consumers.

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Assessment of Moderate Wine Consumption and Alcohol Abuse from the Perspective of German and Hungarian Consumers

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Abstract

◦*Purpose* – The health effects of alcoholic beverages and the differentiation between moderate consumption and alcohol abuse are discussed controversially in medicine, sociology and politics. This raises the question of how consumers assess the relation between health, wine consumption and alcohol abuse.

◦*Design/methodology/approach* – A representative survey in Germany and in Hungary was conducted with 2,000 and 1,500 respondents, respectively. The survey included questions regarding the assessment and definition of alcohol abuse and moderate wine consumption.

◦*Findings*: The results show that in Hungary, moderate wine consumption is defined similarly as in Germany; on the contrary, in the case of alcohol abuse, there are significant differences. The general assessment of alcohol abuse was estimated in the same way, both in Germany and in Hungary.

◦*Practical implications* – Regardless of cultural background, the respondents agreed that excessive wine consumption harms health and certain consumer groups (pregnant women or people under 16 years old) should avoid drinking wine.

Keywords: wine, moderate wine consumption, alcohol abuse, Germany, Hungary

1. INTRODUCTION

The consumption of alcoholic drinks as a “glass” of wine with dinner or a “beer in the evening” with friends, is part of everyday life for many people. Regarding the amount of alcohol per day, there are completely different recommendations from national or international organizations, such as the Chief Medical Officer (2019) in the UK and the Centers for Disease Control and Prevention (2019) in the USA. Despite partly contradictory scientific results, there is an increasing requirement for lower guideline values for alcohol than defined in several countries. However, these guideline values range worldwide from 10 up to 40 g alcohol per day.

The health effects of alcoholic beverages – and in this context, the differentiation between moderate consumption and alcohol abuse – are controversially discussed in medicine, sociology and politics. Some institutions increasingly emphasize the negative aspects of even small amounts of alcohol on health, and generally demand lower guidance levels for alcohol than those established in many countries (Wood, 2018; WHO, 2010). Also, the drinking pattern plays an important role: it does matter whether 30 g of alcohol are consumed in the form of wine combined with a Mediterranean meal, or in the form of spirits without a meal (Boban, 2016; Gea, 2014). Although countries with above-average GDP generally have higher levels of alcohol consumption, this does not imply that most alcohol-related harms and high-risk drinking habits occur in these countries (WHO, 2014).

2. LITERATURE OVERVIEW

2.1. Standard drink

Different alcoholic beverages contain different amounts of alcohol. The question of a standardized standard drink (SD) is becoming more and more important, in order to achieve comparability. By now, each country has its own SD defined (alcohol/ethanol in grams) and set in different recommendations for harmful drinking behaviour. The World Health Organisation (WHO) defines an SD as “a volume of beverage alcohol (e.g. a glass of wine, a can of beer, or a mixed drink containing distilled spirits) that contains approximately the same amounts (in grams) of ethanol regardless of the type of beverage” (WHO, 2014).

In accordance with the WHO (WHO, 2001), low risk includes limited alcohol absorption that makes it unlikely to harm consumers themselves and others. Joshua’s (2017) scientific data showed that the risk increases noticeably if more than two drinks per day are consumed (e.g. Grant, 1994; Joshua, 2017). According to the WHO, the following rules apply:

- Not more than 2 standard drinks per day;
- Not more than 5 times a week;
- No alcoholic drinks:
 - when driving or driving machinery;
 - while pregnancy or lactating;
 - together with certain medications;
 - in case of problems with alcohol.

The fact that men and women metabolize alcohol at different rates is reflected in many guidelines. Most, but not all, recommendations consider women to consume 50-75% of the amount suitable for men.

Between 2013 and 2016, there was a trend towards changes in the guidelines in different countries:

- Lower recommendations for women and men (g alcohol/day)
- Different thresholds for different age groups (youth, young adults, adults over 64)
- Daily rather than weekly limits (or both)
- Abstinence recommendations for 2 days a week
- Definitions for low, moderate and risky alcohol consumption

In 2014, Italy introduced a new policy that marked a drastic change compared to the former policy from 2003. Ethanol was first described as a toxic, carcinogenic and psychoactive substance for which there are no recommendations. Low-risk consumption was defined as only one SD for women and maximal two SD for men. In addition, there was no moderate, risk-free alcohol consumption, but only consumption with low risk. The drinking guidelines shifted from potentially positive aspects to potentially harmful ones (SINU, 2014). This new approach is expected to be reflected in many policies.

Germany is associated as a typical Western European state with a wealthy status, while Hungary bridges Europe and the Balkans. These two countries, therefore, represent different cultural and social backgrounds within the European Union. Despite their differences, these two countries have a comparable per capita alcohol consumption of 11.8 l (Germany) and 13.3 l of pure alcohol, and a wine consumption level of 24 l per capita is almost the same as in Hungary. In Germany, depending on the institution, the daily dose of moderate alcohol consumption is defined as follows: woman 12-14 g, and for men twice as much. In Hungary, it is 17 g (woman) and 34 g (men) alcohol.

2.2. Health and social aspect of wine consumption

Wine and health is a frequently discussed, ambivalent topic. For centuries, wine has been used as a natural remedy and medicine. Scientifically, it has been proven several times that the effects follow a so-called J-curve: low to moderate wine consumption might have health benefits but from a certain dose, it is undoubtedly harmful to health (Gaetano, 2017).

According to Guilford and Pezzuto (2011), as well as Flamini et al. (2013), polyphenols in wine are supposed to have a positive health impact thanks to their antioxidant effect and their direct action on cellular lipid homeostasis (Vecchio et al., 2017). Low to moderate consumption has protective effects against the following diseases:

- Cardiovascular diseases (Brien et al., 2011; McCambridge and Hartwell 2014; O’Keefe et al., 2014; Flesch et al., 2016; Bell et al., 2017; Colpani et al., 2018; Wood et al., 2018);
- Neurodegenerative diseases (Letenneur, 2004; Pinder and Sandler, 2004);
- Type 2 diabetes mellitus (Knott et al., 2015; Cai et al., 2016; Hirst et al., 2016; Holst, 2017; Zhang, 2017);
- Different cancer types (Bianchini and Vainio, 2003; Kamholz, 2006; Chao, 2007; Kubo et al., 2009);

- Age-related dementia (Neafsey and Collins, 2011; Weyerer et al., 2011; Xu et al., 2017).

In spite of several studies with positive impacts, Tomera (1999) warned in his study against the negative effects of excessive alcohol consumption, such as liver cirrhosis, physical risk of drunk driving, alcoholism, violence and socialization issues. The Wine Information Council (2016) quoted several studies that have analysed the negative effects of alcohol on different cancer types and embryos' malformation during pregnancy.

The abuse of alcoholic beverages harms health and has negative social and economic consequences. The number of alcohol-dependent persons in Germany varies. According to Terpe (2014), in 2012 the number of alcoholics in Germany increased to 1.8 million.

Every year, about 15,000 people in Germany die due to high alcohol consumption. In addition, a survey conducted by the Institute for Therapy Research (Munich) revealed that too many people under the age of 25 still consume alcoholic beverages in a way that increases the risk of a manifested addictive disorder in adulthood (Tauner, 2014).

A new study on tobacco and alcohol consumption by young people in Germany (15,023 participants) showed that more than half of the 17-year-old population (51%) have ever drunk alcohol. Around 12% of them practise risky alcohol consumption, while 7% reported regular binge drinking. However, the share of the two latter groups (high-risk alcohol consumption and regular binge drinking) decreased significantly in the survey period 2014-2017, compared to 2009-2012. This points out the success of preventive programs in Germany (RKI, 2018).

The fact that socio-economic status has an effect on alcohol consumption across Europe is no longer in doubt (Katikireddi, 2017). At the same time, the willingness to consume wine is fundamentally not dependent on socio-demographic factors. It can be said that wine is widely accepted by the population as a drink. However, when comparing the consumption intensity of wine drinkers, it becomes clear that income, education and age have a significant impact on the amount consumed (Szolnoki, Hoffmann, 2014).

2.3. Research objectives

As mentioned in the first chapter, the results of different studies are controversially discussed worldwide. This study, however, attempts to analyse the problem of alcohol from consumers' point of view, and to find out how German and Hungarian wine consumers assess the relationship between health, wine consumption and alcohol abuse. These two countries represent two different worlds. Due to the completely different development, both on the political and on the economic level, of these two countries, there is a certain scientific interest in investigating wine consumers with various cultural backgrounds. We suppose that differences in culture, economy and politics also have their influence on wine consumption behaviour and on evaluating moderate wine drinking and alcohol abuse.

3. MATERIAL AND METHODS

Representative consumer surveys were conducted in May 2018 in Germany and Hungary. The random sampling of 2,000 and 1,500 participants, respectively is representative of the basic socio-demographic structure of the German population from age 16 and of the Hungarian population from age 18 (the legal drinking ages in each nation). Therefore, the provided information was generalized for the total population of each country. In order to increase the

validity and reliability of the results, the survey was carried out in the form of a personal interview (face-to-face survey) in the households of the interviewees, by using quota sampling [37]. The interviews were conducted by a professional market research company, GfK (Nürnberg, Budapest). For quotas, we used official statistics from the Federal Office of Statistics on the national level. The questionnaire was based on the study Szolnoki and Hoffmann (2014) and included not only specific questions on moderate wine consumption and alcohol abuse, but also socio-demographic and behavioural issues. The data was evaluated with the software SPSS 25.0 (IBM). Statistical methods such as frequency, mean, cross table and ANOVA were used for the evaluation.

4. RESULTS AND DISCUSSION

4.1. Consumption frequency of alcoholic beverages

First, the consumption frequency of three alcoholic beverage types (still wine, sparkling wine and beer) was determined, in order to provide preliminary insight into differences between German and Hungarian consumer behaviour. Table 1 shows that there were significant consumption differences in all three beverage types. These consumption patterns reflect that Hungarian frequent wine drinkers (at least once per week) number significantly higher than in Germany (22% vs 12%). According to this result, the share of occasional drinkers and non-wine drinkers in Germany is higher than in Hungary.

Germany's annual per-capita sparkling wine consumption is number one in the world, with a value of 3.4 l [3]. In Hungary, sparkling wine is also popular; however, the drinking frequency is lower than in Germany.

Beer consumption in Germany exceeds that of Hungary [3, 42]; comparing frequent beer drinkers, 45% of the German population consumes beer at least once a week, while in Hungary, this share is only 24%.

Table 1. Consumption frequency of selected alcoholic beverages in Germany and Hungary

	Still wine		Sparkling wine		Beer	
	Germany	Hungary	Germany	Hungary	Germany	Hungary
	n = 2,000	n = 1,500	n = 2,000	n = 1,500	n = 2,000	n = 1,500
Several times per week	6%	11%	1%	0%	28%	13%
Once a week	8%	11%	3%	1%	17%	11%
Two or three times per month	13%	14%	9%	3%	11%	15%
Once a month	10%	12%	12%	6%	6%	8%
Less than once per month	24%	19%	49%	54%	13%	19%
Never	39%	34%	27%	37%	25%	35%
Chi-square	68.421*		144.739*		177.311*	
Cramer-V	0.198		0.284		0.302	

* significant differences between Germany and Hungary, $\chi^2 = p < 0.05$

4.2. Moderate and excessive wine consumption

In order to find out how German and Hungarian consumers define moderate or excessive wine consumption, two self-assessment questions were asked: “Up to how many glasses of wine would you consider to be a ‘moderate’ amount to drink?”, and “At what point (amount of glasses) do you think wine consumption becomes excessive?” The question also defined the size of the glass, as well as the alcohol level of wine – a glass of 200 ml of a wine at 13% vol. Alc.

As Table 2 shows, the results of moderate consumption differ significantly between countries and between wine drinkers and non-wine drinkers. In general, Hungarians set a higher limit on both moderate and excessive alcohol consumption than Germans. The moderate wine consumption in Germany is defined as 0.3 l wine/day. This corresponds to 32.2 g of pure alcohol. In Hungary, however, it is 0.36 l, or 37.4 g of pure alcohol. The German Department for Addiction Issues sets a threshold for low-risk consumption at 12 g of pure alcohol for women and 24 g for men, while other authorities advise no more alcohol than 20 g for women and 30 g for men. The values of the investigation are above the recommended limit. In Hungary, the recommended amount is 17 g (female) and 34 g (male). These values also exceed the official limits.

Table 2. Evaluation of moderate wine consumption per day (13% vol. Alc. wine) in litres and grams of pure alcohol

	Wine drinkers	Non-wine drinkers	All participants
Germany	0.34 l (35.4 g)	0.27 l (28.1 g)	0.31 l (32.4 g)
Hungary	0.38 l (39.5 g)	0.32 l (33.3 g)	0.36 l (37.4 g)
F-Value	23.179*	11.003*	48.992*
Sign	0.000	0.001	0.000

* Significant differences at $p < 0.05$, ANOVA-test

When comparing male and female respondents, there was a significant difference, regardless of the country. Men value modest wine consumption significantly more than women do. However, by comparing the recommended amount of consumption, it becomes clear that the deviation of women from the recommended amount is significantly greater than that of men. The different age groups rated moderate wine consumption similarly – but Hungarian consumers at a significantly higher level.

From the point of view of the total population, excessive wine consumption is more than twice the moderate amount of consumption (Table 3).

Table 3. Evaluation of excessive wine consumption per day (13 vol. Alc. wine) in litres and grams of pure alcohol

	Wine drinkers	Non-wine drinkers	All participants
Germany	0.80 l (83.2 g)	0.70 l (72.7 g)	0.76 l (79.0 g)
Hungary	1.10 l (114.4 g)	0.85 l (88.4 g)	1.0 l (104.0 g)
F-Value	280.256*	80.024*	240.959*
Sign	0.000	0.000	0.000

* Significant differences at $p < 0.05$, ANOVA-test

Wine drinkers in Germany estimated the value of excessive wine consumption at 0.8 l, while non-wine drinkers reported 0.1 l less. In Hungary, the values are significantly higher. Wine drinkers gave an average of 1.1 l and non-wine drinkers 0.85 l as excessive (Table 3).

Age did not seem to significantly affect the assessment of excessive wine consumption.

In the whole sample, as well as in the group of wine drinkers, the values were clearly rated higher than the official values.

4.3. Consumers' image of wine and alcohol consumption

To analyse consumers' attitudes towards "alcohol and wine consumption" and its link to health, six statements were evaluated on a scale of -3 (totally disagree) to +3 (totally agree). Five of the statements were wine- and one alcohol-related. When comparing the German and Hungarian results, it becomes clear that consumers from both countries rated the statements more or less in a similar way (see Table 4). Both German and Hungarian consumers agree that certain persons (pregnant women, adolescents below 16 years in Germany and 18 years in Hungary) should not drink wine, and that excessive wine consumption is detrimental to health – these statements were, in both countries, rated significantly higher compared to other statements.

The questions on "moderate wine consumption" combined with "lifestyle", "wine consumption" and "alcohol abuse" were similarly assessed by both nations, though Hungarian consumers rated all three statements slightly higher than the Germans.

The statement "any alcohol consumption is dangerous" was rated higher in Germany. This is due to the fact that the proportion of non-wine drinkers in Germany is much higher than in Hungary.

Table 4. Comparing statements regarding alcohol consumption and health by country

	Germany	Hungary	F-value	Sign
Some people (e.g. pregnant women, underage people, etc.) should avoid drinking	2.5	2.2	15.498*	0.020
Excessive drinking of wine is bad for your health	2.3	2.1	7.194	0.064
Moderate consumption of wine can be compatible with a healthy lifestyle	1.5	1.7	7.954	0.061
Moderate wine consumption is not alcohol abuse	1.4	1.5	6.532	0.075
I believe that wine is best appreciated in small amounts	1.3	1.7	17.075*	0.010
Drinking alcoholic beverages is dangerous no matter the quantity or the type of alcoholic beverage	0.7	0.3	20.011	0.000

* Significant differences at $p < 0.05$, ANOVA-test

Comparing wine drinkers with non-wine drinkers, it became clear that the assessment of statements very much depended on personal experience and the consumption of wine. Non-wine drinkers from both countries were much less in agreement with statements such as “moderate wine consumption can be combined with a healthy lifestyle”, “I do not consider moderate wine consumption as an alcohol abuse” and “wine consumption is only possible in modest amounts” than wine drinkers. Surprisingly, however, both groups rated the first two statements quite identically, with no significant differences. This signals a general sensitization of the population, regardless of the intensity of wine consumption, to critical issues such as vulnerable target groups and alcohol consumption, as well as excessive wine consumption and health.

Gender also caused differences in the assessment of the statements. Accordingly, women rated almost all statements significantly higher than men. This testifies to a pronounced sensitivity of female consumers, as opposed to men, in terms of alcohol and health.

Age difference did not seem to significantly influence opinions on wine consumption and health. In Germany, only the youngest generation (16-29 years old), with their much softer opinion, stood out against alcohol and wine consumption, while in Hungary all age groups judged the statements similarly.

Frequent wine drinkers who consume wine at least once a week were more indulgent to the statements listed here than occasional or rare drinkers. This phenomenon occurred both in Germany and in Hungary.

5. CONCLUSION AND MANAGERIAL IMPLICATIONS

Although wine generally has the image of being healthier than other alcoholic beverages (Higgins and Llanos, 2015; Chang et al., 2016), consumers have a clear idea of where moderate wine consumption ceases and where excessive wine consumption begins. However, the values estimated by the consumers are above the officially recommended limits. Consumers in Germany defined moderate consumption as 32.4 g and in Hungary as 37.4 g of pure alcohol/day. When asked “Where does excessive wine consumption per day begin”, consumers responded even more cautiously, giving 79 g in Germany and 104 g of pure alcohol/day in Hungary.

The majority of Germans and Hungarians surveyed agree that vulnerable audiences, such as pregnant women or minors, should avoid wine consumption and too much wine is harmful to their health. Other statements about moderate wine consumption were judged significantly differently depending on gender, age and frequency of use, but there were no major differences between the German and Hungarian results.

The respondents rated the danger of any alcohol consumption more moderately – this statement reached an average of 0.7 in Germany and 0.3 in Hungary (measured on a scale of -3 to +3).

The results presented here help to understand how consumers perceive moderate and excessive wine consumption in everyday life, and how they judge wine as an alcoholic beverage. With these results, the target group of frequent drinkers can be accurately described. These findings can contribute to a long-term goal-oriented wine in moderation strategy for consumers, and support policy advice on “moderate and excessive wine consumption”.

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Family Communication and Responsible Wine Consumption: A Comparison between France and New-Zealand

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Abstract

◦Purpose – Excessive alcohol drinking is a critical public health issue in our societies, especially among youth. In France, a survey shows that 44% of 17 year-old adolescents excessively drunk in the month before being surveyed, and 8.4% of those underage adolescents regularly consumed alcohol (www.drogues.gouv.fr/lessentiel-jeunes-lalcool). Another survey conducted in New Zealand reveals a similar trend with 13% of adolescents aged 15-17 consuming alcohol excessively in the past year (NZ Health Survey 2017/2018). These preoccupying statistics is a strong call for action among academics, practitioners and policy makers to understand excessive drinking behaviour and look at preventative programs. One possible way to prevent it among youth may be to understand and improve parents-teenagers communication about alcohol/wine consumption (Yap et al., 2017). Family communication and responsible drinking play key roles in preventing excessive drinking (Kelly et al., 2012), yet little is known about how family communication, behaviours around wine consumption and wine knowledge, can impact on drinking behaviour, particularly among youth.

The purpose of our research is to understand families' drinking patterns, parental communication strategies, and identify the most effective content/messages that parents could employ to educate their teenagers on responsible drinking. An extensive literature review was conducted for this research that has identified some key areas for exploration. Firstly, there is

conflicting evidence about the most appropriate messaging. On the one hand, there is some evidence that parents are best to emphasise on the negative effects of excessive drinking. For example, Duhachek et al. (2012), in their research on responsible drinking, found that the fit between guilt (shame) as negative emotions and gain (loss) advert framing was more persuasive in preventing binge drinking. Further, to be effective, parental rules need to be perceived as clear by their teenagers (Mares et al., 2012). On the other hand, there is evidence that moderate wine consumption has health benefits (Artero et al., 2015; Droste et al., 2013). Parents could therefore educate their adolescents about wine as a positive learning experience that stimulates curiosity and engagement (e.g., “apprenticeship” to acquire human capital, Gergaud et al., 2012) in wine appreciation. The role of the parents would be to transmit wine-related knowledge (terroir, varietals, wine history; Viot, 2012) and promote moderate consumption. Secondly, an examination of parents’ drinking behaviours and patterns is also essential to understand. The education effectiveness may also depend on parents’ own consumption patterns. Children learn from their social/cultural environment and model their parents (“social learning theory”; Bandura, 1986; 2002). Hence, parents who drink responsibly may be more credible to their teenagers. The parents’ credibility may also depend on their past drinking behaviour. For example, drinking initiation and rites of passage may represent important steps to become an adult and not change across generations. Finally, the process of self-regulation would be worthwhile to examine in our context (Bagozzi, 1992; Bandura, 2001; Dismore et al., 2008), e.g. whether and when (un-)conscious self-regulation is activated and triggers responsible drinking. This is likely to depend on when this educational process has started in the childhood.

◦Design/methodology/approach – To examine the most effective strategies for families to promote responsible wine consumption a longitudinal mixed-methods approach will be implemented (van der Vorst et al., 2010). Data collection will occur in both France and New Zealand using the same mixed-method approach. These two wine nations both have issues with excessive alcohol consumption; however, we expect the patterns of drinking to vary due to their different social/cultural representations of wine (Mouret et al., 2013). We are also interested in exploring the drinking motivations (“why are they drinking?”) of each country to determine similarities and differences. To the best of knowledge, no study has focused on comparing France and New Zealand. We will first conduct a qualitative study to identify the main themes around family communication and alcohol/wine consumption. Semi-structured interviews with approximately 60 families (30 from each country) will be conducted with both parent(s) and teenager(s) together. A variety of families and family structures (e.g. single parent households) will be recruited to ensure a reasonable cross-section. Additionally, members of the families will complete an individual questionnaire to measure their wine knowledge. Second, based on the results of the qualitative study, we will set up relevant measurements and conduct online longitudinal experiments among a random sample of parents and their teenagers. At baseline, participants complete the same questionnaire, and then they are randomly assigned to different conditions. Namely, parents receive monthly emails based on the manipulated types of content/information (Newsletter format). Twelve months after, participants complete another questionnaire and we will measure the difference between conditions. The aim is to identify what the most effective types of communication are to promote responsible consumption.

◦Practical implications – Our findings will have important implications for social marketers and policy makers; in addition, these are relevant to organisations and managers involved in the wine business industry to prevent excessive drinking.

Key words: -

Exploring the Barriers and Triggers for the Purchasing and Consumption of Low and No-Alcohol (NOLO) Wines

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EXTENDED ABSTRACT

The market for no and low-alcohol (NOLO) wines is rapidly growing. The Institute of Wine and Spirit Research (ISWR) calculate that global NOLO wine market grew by 3% and 12%, respectively, since 2015, and will continue to keep growing at this rate until 2023 (IWSR, 2021). Supporting figures are also presented by Fact.MR (2021). These industry reports give us a snapshot of the current scenario and provide some indication of how much the market can grow. However, they do not test what interventions we could/should design to facilitate a shift in behaviour from both trade operators (i.e., producers, importers, distributors, and retailers) and consumers, nor generate understanding of consumer attitudes, expectations, or preferences.

The literature review on the marketing strategies facilitating the adoption of NOLO wines is limited. The few papers investigating the topic have either exclusively focused their attention on low alcohol wines (Saliba et al. 2013; Bruwer et al., 2014; Masson and Aurier, 2015; Bucher et al., 2018; Bucher et al., 2020;) instead of both low- and no-alcohol wines, or are over twenty years old (Howley and Young, 1992; d’Hauteville, 1994), thus making it hard to consider them reliable to better understand the cohort of the current market. To provide a comparison, one of the largest cross-country studies to date looking into consumers choice drivers for wine shows

that alcohol content was one of the least important factors back in 2007/2008 (Goodman, 2009). Nowadays the growing attention policy makers are giving to address the issues related to the abuse of alcohol (Vuik and Cheatley, 2021) suggest that the discourse around the alcoholic content of a wine will become relevant for consumers in the not-so-distant future. To the best of the authors knowledge only a couple of papers have been investigating the topic of no-alcohol wines from a consumer perspective in the last 10 years (Chan et al., 2012; Stasi et al., 2014).

The purpose of this research is to lay a solid foundation about consumer attitudes, expectations, and preferences towards NOLO wines through a series of focus groups conducted in Australia in October/November 2021. A total of 32 participants (16 Drinkers (D) and 16 non-drinkers (ND)) were recruited for 8 x 60min focus groups. However, in 4 of the 8 focus groups, we had late cancellation or no show, hence we ended up with 28 participants as per .

Table 23 below. Each participant was sent documentation in advance and their signed consent was collected before participating. Each was given a \$50 gift card gratuity.

Table 23: Focus groups sample characteristics

Focus Group No.	Alcohol drinker	Gender	Age	Number of participants
1	No	Female	Millennial	3
2	Yes	Female	Millennial	3
3	No	Female	Gen X	3
4	Yes	Female	Gen X	4
5	No	Male	Millennial	3
6	yes	Male	Millennial	4
7	No	Male	Gen X	4
8	Yes	Male	Gen X	4

Some of the key results are that, overall, participants have strongly embedded negative perceptions and associations with no-alcohol (NO) wines, but were curious and eager to try them, and thought it was good that the NOLO category was growing. The problem seemed to be NO wines were expected to taste and behave like regular wines subsequent tasting disappointed most. However, drinkers who liked the taste of NO wines said they may have a glass at a restaurant or if driving, many said they would not drink a whole bottle.

NOLO spirits and beers were viewed as successfully replicating the taste of their full-strength counterparts, and therefore were standard, or growing inclusions in the repertoire. This had a flow on effect to pricing. NO wines were seen as being of lower quality, cheaper to make and sell (no tax), and less ‘crafted’ so participants expected to pay less. A few noted a premium may be reasonable given costs associated with producing smaller batches. Discussion about health benefits of less alcohol and the exclusion of ND from participating fully in social situations (in particular) increased the likelihood that people might buy. Drinkers were receptive to LO wines for health and safety benefits, but said % alc would have to be very low, or they may as well have one less glass of regular wine. Drinkers who valued the ‘kick’ and relaxation effects of regular wine were unlikely to buy NO wines, though some would buy for others or have a glass with a ND friend or partner. Non-drinkers interested in buying NO wines for ‘stealth’ reasons (fitting in socially, or in business situations) and those drinkers who appreciated wine said it should be sold in traditional bottles and piccolos, and not casks.

Drinkers articulate about regular wine struggled to describe the NOLO wine taste, which suggests difficulty relating the markers of wine appreciation to past experience.

These focus groups represent a preliminary study towards a broader quantitative study the authors intend to work on in the near future.

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TOURISM

The 4 E's of Experience and their Impact on TripAdvisor Reviews of Wine Tourism in the Western Cape

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Abstract

◦*Purpose* – Wine tourism is important to the South African economy, most especially in the Western Cape. The rise of customer rating metrics in the last decade has resulted in platforms, such as TripAdvisor, dictating the success of wine tour operations. This study examined the extent to which the four dimensions of experience namely education, entertainment, escapism and esthetics (Pine and Gilmore, 1998) configure to explain tourist satisfaction ratings found on TripAdvisor.

◦*Design/methodology/approach* – We variously regressed TripAdvisor wine tourism ratings across five Western Cape wine areas (Walker Bay, Franschhoek, Paarl/Wellington, Robertson and Stellenbosch).

◦*Findings* – We variously regressed TripAdvisor wine tourism ratings across five Western Cape wine areas (Walker Bay, Franschhoek, Paarl/Wellington, Robertson and Stellenbosch).

◦*Practical implications* – Destination managers need to enhance the quality of their esthetic offering, as this is clearly the most important contributor to excellent reviews.

Key words: Wine Tourism, Experience Economy, 4 E's, TripAdvisor, Western Cape.

Expectations of German Tourists Regarding Wine Tourism Experiences

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Abstract

◦*Purpose* – Wine tourism in Germany still falls short of its potential. In order to benefit from the long-term trend towards sustainable tourism, this study aims to explore different target groups for wine tourism experiences such as wine tastings, vineyard, or cellar tours.

◦*Design/methodology/approach* – We applied an exploratory research approach and conducted four qualitative group discussions with German tourists selected based on prior wine tourism experience (yes/no) and age (below 40/above 40).

◦*Findings* – Results show that German tourists have distinct expectations regarding wine tourism experiences along the customer journey. The ‘perfect’ wine experience goes far beyond just tasting the wine and tourists have a relatively high willingness-to-pay for these events. We derive four distinct personas representing different target groups for wine tourism experiences for the German market.

◦*Practical implications* – The findings can guide German wineries in designing customer-oriented wine tourism offerings and identify important trends in wine tourism.

Key words: wine marketing; wine tourism; customer experience; wine tourism experiences

1. INTRODUCTION

Tourism is of high economic importance for the German wine-growing regions. Before the Covid-19 pandemic, more than 26 billion in gross sales were generated with tourism annually (Tafel and Szolnoki, 2020). However, wine tourism makes up only a small part of it, as only five billion were generated with wine tourists who actually visited a winery (Tafel and Szolnoki, 2020). Accordingly, wine tourism in Germany is still lagging behind its potential. To promote wine tourism in the German wine-growing regions, wine tourism experiences (WTEs) such as

wine tastings or cellar and vineyard tours, need to be designed in a more customer-oriented and professional manner.

Before deriving recommendations for the design of WTEs, it is crucial to understand tourists' motivations and expectations for booking and participating in wine tourism offerings during their stay in a wine-growing region. It is therefore necessary to take a holistic view along the customer journey from the information phase to booking an offer, participating in the offer, and making a recommendation afterwards. Following a qualitative research approach, our results of four group discussions with potential German wine tourists show that customers have distinct expectations regarding WTEs. The 'perfect' wine experience goes far beyond just tasting the wine and thus includes a certain willingness-to-pay for these offerings. We derive four distinct personas that represent different target groups for WTEs for the German market. The findings can guide wineries in designing customer-oriented and professional WTEs and lower tourists' inhibitions to visit a winery when staying in a wine-growing region.

2. CONCEPTUAL BACKGROUND AND LITERATURE REVIEW

According to Santos et al. (2019, p. 720), "wine tourism has to be seen as a system centered on wine tourism experiences and activities [... and] has to provide for the creation of unique and genuine tourism experiences, which must be more personalized and differentiated".

Due to the increased importance of wine tourism, several studies have addressed the motivation, needs and expectations of wine tourists in recent years (e.g. Bruwer and Rueger-Muck, 2019; Carlsen and Boksberger, 2015; Cohen and Ben-Nun, 2009; Madeira et al., 2019). Other studies have dealt with co-creation aspects in wine tourism (e.g., Sigala and Haller, 2019), addressed the question of how to optimize the customer experience of wine tourism offers using the experience economy model (e.g., Garibaldi and Sfodera, 2020; Quadri-Felitti and Fiore, 2012; Thanh and Kirova, 2018), or identified wine tourism segments and distinguished them from non-wine tourism customer segments (e.g., Szolnoki, 2018). However, these studies do not provide a holistic understanding of tourists' motivations and expectations regarding WTEs along all phases of the customer journey (Lemon and Verhoef, 2016). The studies therefore remain superficial when it comes to the concrete target group-oriented design of WTEs and respective recommendations for wineries along all phases of the customer journey.

Our research aims to close this gap and provide a holistic overview of tourists' motivations and expectations around WTEs along the entire customer journey (Figure 1), taking into account current developments associated with the Covid 19 pandemic, sustainability, and digitalization. Specific target groups for WTEs are to be identified for the German market, which should help wineries to act in a customer-oriented manner in their day-to-day business.



Figure 1: Customer journey with four process stages; image source for icons: pixabay.com

3. RESEARCH DESIGN

The aim of this research is to understand German tourists' motivations and expectations in booking and participating in WTEs, thereby focusing on all phases along the customer journey and incorporating current developments associated with the Covid-19 pandemic, sustainability, and digitalization. To approach this research objective, it is necessary to explore (1) tourists' information behaviour and needs when planning and booking (domestic) trips, (2) tourists' expectations regarding WTEs during their stay in a wine-growing region, and (3) post-stay behaviour. Finally, target-group specific profiles in the form of personas are developed to derive customer-oriented recommendations for wineries to improve the design of WTEs.

To assess customers' needs and expectations towards WTEs in Germany, an exploratory qualitative research approach was chosen due to its advantage for exploring elusive phenomena like customers' motives and attitudes. We only recruited people who are regular wine drinkers (wine consumption of at least once a month) and who have travelled to a German tourism destination at least once in the last five years (day trip or overnight stay). We divided participants into four different groups along the dimensions "age" and "wine tourism experience". Participants with wine tourism experience are characterized by the fact that they have participated in a WTE at least once in the last five years. Participants without wine tourism experience have not yet participated in a WTE, but are open to them. Moreover, we split both groups with and without prior wine tourism experience into a young (age 20 to 40) and an old age group (age above 40). The target groups thus represent the structure of domestic tourists for whom WTEs could be of interest. A market research institute specializing in qualitative

research conducted the group discussions and content analysis. For their participation in the focus group discussions, all participants received 50 euros as an incentive. Between five and eight participants were recruited for each group discussion. Overall, the results are based on $n = 27$ participants across all four group discussions. The group discussions lasted two hours each and were professionally guided by a moderator. During this time, a predefined list of topics was worked through and illustrative material was shown. The discussions were conducted in a face-to-face format in a professional test studio on November 19 and 22, 2021. The location where the focus group discussions were conducted was a major city in close geographic proximity to several German wine-growing regions. The group discussions were all recorded and analysed using content analysis methods. Due to the small sample size and data collection during the Covid-19 pandemic, the results can only be generalized to a limited extent, but still indicate important trends in wine tourism.

4. RESULTS

4.1 Planning domestic travel

This results section examines tourists' motivations and needs regarding domestic travel planning, and it explores what type of touristic experiences could delight them, including their selection criteria and information behaviour in planning domestic trips.

Tourists' motivations for booking domestic trips is mainly driven by personal reasons like the intention to visit friends or family or practical considerations like the possibility to spontaneously plan short trips. Landscape and sightseeing opportunities of the target destination play a major role in tourists' decision-making process. Tourists organize and book these domestic trips predominantly on their own without relying on specialized tour operators.

With regard to the selection of the vacation destination, criteria such as the 'character' of the vacation, meaning whether it is an active vacation versus a wellness trip, the travel companions, and aspects regarding a suitable accommodation as well as mobility and transport are highly relevant. Often, a rough travel concept is planned in advance at home. Here, online portals like TripAdvisor, regional websites, and social media play a significant role. Detailed planning, especially with regard to short-term leisure activities, is often done on-site after tourists' have already reached the travel destination. Tourists with wine tourism experience include experiences around regional products in their planning and decision-making process, while tourists without prior wine tourism experience do not.

4.2 Expectations of tourists regarding a stay in a wine-growing region

This section covers participants' associations with German wine-growing areas and awareness of and interest in WTEs, including barriers to accessing these offerings.

The term 'German wine-growing area' is spontaneously associated with sociability, cosiness, and an open and familial way of life. Participants living in proximity to a wine-growing region who have permanent access to WTEs prefer to use the offerings nearby. For them, long-distance journeys with the explicit focus on experiencing wine are less interesting. Other barriers can be seen in a lack of knowledge about adequate offerings or traveling to wine-growing regions with children.

4.3 The 'perfect' WTE from the tourist's point of view: Expectations along the customer journey

To understand what tourists perceive to be an ideal or 'perfect' WTE, we used the customer journey to capture holistically customers' expectations along all relevant phases from planning and booking a WTE to giving a recommendation afterwards (Figure 1).

For the information search and planning phase, the online availability of information is of central importance. Regarding the booking phase, online booking options were desired as well as booking options by telephone and spontaneously on-site. Regarding the WTE itself, it was very important for the respondents that a WTE is something special. Moreover, participants would like to have a motivated and competent person conducting the event. A familiar, open, and cordial atmosphere is important for a 'perfect' stay at a winery. It is not the reputation of the winemaker that matters most, but more the feeling of authenticity as well as enthusiasm and competence on the side of the winemaker and the wineries' employees in general. Group events in a manageable setting (maximum 10-15 participants) are often preferred, among other things, because of the greater sociability factor. After having attended a WTE, tourists are likely to purchase wine and related souvenirs for home. However, they also make use of feedback options and possibilities to stay in contact with the winemaker, e.g., via newsletter. The main drivers for follow-up purchases are discounts or the emotional relationship to a product that has been built through the unique WTE on-site. The anticipation of transport problems or a too commercial atmosphere of the WTE has a negative effect on purchase intention after a WTE. After having attended the event, recommendations are usually made by word of mouth among

friends and family. Online and social media platforms are also relevant at this point, especially among younger people. Most participants are willing to write an online review upon request.

As part of a small experiment, participants had to create their own ‘perfect’ WTE by choosing from different options available. Results show that the majority of participants prefer WTEs composed of a wine tasting including snacks (27 mentions) with a duration of the stay from three to four hours (23 mentions) that includes a guided tour through cellar (20 mentions) and vineyard (20 mentions). An overwhelming majority of participants preferred to visit a single winery instead of engaging in any type of winery hopping. As we directly asked participants to state openly their willingness-to-pay, the results can only be interpreted as tendencies, but they give first valuable indications for the pricing of WTEs. The willingness-to-pay for ‘perfect’ wine experience shows a median value of 50 euros. Analysing subgroups, we see that especially the younger group with wine tourism experience shows an extraordinarily high willingness-to-pay with median value of 100 euros ($n = 8$), while the lowest willingness-to-pay with a median value of only 32.50 euros pertains to the older group with wine tourism experience ($n = 5$). The younger group without wine tourism experience shows a median value of 42.50 euros ($n = 6$), while the older group without wine tourism experience shows a median value of 50.00 euros ($n = 8$). Moreover, participants would appreciate the ability to attend wine tastings spontaneously for a small fee. This well-known concept from countries such as the U.S. is currently not popular in Germany, but could help overcome the reluctance of tourists to visit wineries.

4.4 Target-group specific differences: Four persona profiles

The results were then used to identify target groups and develop typical personas for WTEs that allows German wineries to design WTEs in a customer-oriented manner. The need to develop specific personas arises from the fact that trends such as digitalization, sustainability, and experience orientation, as well as the Covid-19 pandemic have changed travel behaviour. The results show that the different target groups differ with respect to WTE related expectations and willingness-to-pay for a WTE. The younger target groups show a strong “experience orientation”, tend to focus more on sustainability aspects and consider a stay in nature, outdoor activities and active participation as more important than the older groups. The older target groups are more interested in wine in combination with food and are characterized by their rather low willingness-to-pay for WTEs.

5. DISCUSSION

In Germany, we can see a trend towards sustainable tourism. Many tourists want to discover the vacation region in a sustainable way, i.e., spend vacations in a socially acceptable, resource-conserving, and environmentally friendly way (FUR, 2020). Wine tourism in Germany can benefit from this trend, but still falls short of its potential. Thus, it is necessary for wineries to design WTEs in a more professional and customer-oriented manner to overcome the reluctance of tourists to visit wineries.

To design attractive WTEs, it is necessary for wineries to understand tourists' motivations for and expectations of participation in WTEs during their stay in a wine-growing region. Against this background, this study examines German tourists' expectations regarding WTEs along the customer journey. Following a qualitative research approach, we generate first exploratory insights and show that the 'perfect' WTE goes far beyond just tasting the wine. Our findings can guide German wineries in establishing more customer-oriented WTEs.

Our results show that German tourists tend to increasingly obtain their information via social media channels, especially Instagram, apps, and the Internet in general, when planning and booking trips. Thus, wineries need to provide WTE related information online and should increasingly consider digital channels when advertising their WTEs to all age groups. In parallel, this more digital communication approach should be combined with local advertising in hotels or tourist information points. Secondly, German tourists' 'perfect' WTE goes far beyond just tasting the wine. As a recommendation, wineries should strengthen the experience character of their offerings, facilitating an authentic discovery of the wine culture, including the wine production process, the local way of life, and the philosophy of the winemaker. In addition, the experiential character of a WTE can be improved by joint projects with local restaurants as well as by combining WTEs with other touristic offerings, e.g., hiking tours in the nature. Third, the younger people in our sample do not want to contact a winery actively to book an event. Therefore, besides making events bookable online, it is necessary to establish easy access WTEs such as tasting '5 wines for 5 euros' as a permanent walk-in offering. At the same time, the concept of winery hopping – a widespread wine tourism activity in New World countries – cannot easily be transferred to Germany due to different cultural expectations. Fourth, German tourists appreciate a combination of wine experiences with other culinary offerings, especially with other regional products. A combination of tasting and knowledge transfer seems desirable for customers instead of purely focussing on the product itself.

Overall, our study is in line with previous findings about tourists' expectations of WTEs (e.g. Bruwer and Rueger-Muck, 2019; Carlsen and Boksberger, 2015; Madeira et al., 2019; Quadri-Felitti and Fiore, 2012; Thanh and Kirova, 2018), but highlights recent developments regarding tourists' expectations with respect to digitalization (online availability of information and online booking options), a strong experience orientation in the younger target groups, and the special expectations of German tourists, e.g., regarding the duration of a 'perfect' WTE and the negative attitude towards winery hopping events.

The limitations of our study stem from the exploratory nature of our study. Thus, the transferability of our results to other regions is limited due to the focus of our study on German tourists as well as different levels of wine tourism development and culture differences among regions.

Acknowledgement: This research project was financially supported by the German Federal Ministry for Economic Affairs and Climate Action.

Supported by:



on the basis of a decision
by the German Bundestag

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Differentiated Pleasure and the Wine Tourism Experience

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Abstract

◦*Purpose* – Holbrook & Hirschman's (1982) seminal paper pointed out that consumers are often motivated by desires outside of the economic or transactional. In pointing out the importance of fantasies, feelings, and fun, their work heralded a new way of looking at consumption. Subsequently, the popular text published by Pine and Gilmore (1999) proffered advice to marketers on how to transform their offerings, moving away from fungible commodities, tangible products, or intangible services towards a focus on memorable experiences. The nature of memorable consumption experiences was recognized as being multifaceted in these early works with authors noting the symbolic, hedonic, and esthetic nature of consumption through models such as Pine and Gilmore's entertainment, education, esthetics, and escape or Schmitt's (1999) sense, feel, think, act, relate.

Later research measured the dimensions of hedonic consumption experiences and determined that pleasure is not summative. Instead, there are four pleasure types: sensory (involving the senses); social (interactions with others); emotional (experiences that move us); and intellectual (involving learning). These pleasures differ qualitatively, and one tends to dominate in any hedonic consumption experience (Dubé & Le Bel, 2003; Le Bel, Sears, & Dubé, 2004; Sears, 2003; 2011).

Although the hedonic nature of wine tourism is recognized (Bruwer & Alant, 2009; Charters & Pettigrew, 2005; Hall, Johnson, & Mitchell, 2002) and wine tourism researchers have embraced the notion of wine tourism as a consumption experience (for a review see Santos, Ramos, Almeida, & Santos-Pavón, 2019), to date research exploring the Wine Tourism Experience (WTE) is largely confined to using the dimensions derived from Pine and Gilmore's circumplex (Quadri-Felitti & Fiore, 2012, 2016; Sigala, 2019). Thus, the measurement of the WTEs is either summative (e.g., through measures of satisfaction or enjoyment) or only indirect (e.g., through measures associated with the winescape) and fails to capture the differentiated nature of hedonic experience.

◦*Design/methodology/approach* – The differentiated pleasure scale developed by Sears (2011) was adapted for the wine tourism context and administered in an online survey of wine tourists who had participated in an organized, guided wine tour.

◦*Findings – Consistent with previous research, all four pleasure types were present in the WTE and one pleasure type dominated the hedonic consumption experience of survey respondents. In descending order of strength, the reported pleasures were emotional, sensory, social, and intellectual. Of the four pleasure types, emotional pleasure alone predicted wine tourist's reported happiness with the wine tour. These findings build on the previous literature regarding wine tourist behaviour and segmentation. The pleasure types are differentially related to the commonly used measures for segmentation; wine knowledge and interest (Charters & Ali-Knight, 2002) thus serving to further our understanding of WTE's as hedonic consumption experiences.*

Key words: wine tourist experience, hedonic consumption experience, wine tourism

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How German Wineries Can Improve Their Tourism Offer

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Abstract

◦*Purpose* – The aim of this paper is to identify gaps in the wine tourism offer in Germany in order to better satisfy demand. Wineries can derive strategies to successfully participate in the tourism market.

◦*Design/methodology/approach* – For this study, two winery surveys and a tourist survey were conducted in all 13 German wine regions. By comparing the supply and the demand side, this work can provide important insights into some neglected features.

◦*Findings* – Results show that winery operators are aware of some of the most important elements, yet not of all of them. Especially the highly demanded culinary experiences are strongly underestimated.

◦*Practical implications* – German wineries can better meet their visitors' expectations which allows them to better exploit the market's potential. This way, the decline in the number of wineries could be slowed down, preserving an important part of Germany's cultural heritage.

Key words: wine, tourism, success factor, Germany



STRATEGIC PLANNING

The Internationalization Strategies of Corporate in Emerging Countries: the case of Moët Hennessy Brazil

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Abstract

◦Purpose – The purpose of this paper is to understand the process of decision making, regarding strategies, once the internationalization of the corporate has been acted. More specifically the light is made on the particularities of the emerging countries as markets for business opportunities. In order to have a practical example, the corporate Möet & Chandon based in France with subsidiaries in Brazil named Möet Hennessy and Chandon Brazil are the focus of the case study. The research is mainly realized in Brazil, through a literary review, and a data collection about the corporate in form of interviews at the headquarter and sites of production.

Key words: International strategies, emergent countries, corporates.

1. INTRODUCTION

Many scholars have been studying international strategies in the context of emerging countries (i.e. Meschi and Prévot, 2016). However, the impact that international corporates have on those countries helping the development and the integration into the globalized market as yet to be taken in a specific view; consequently, how emerging countries represent opportunities of business is less researched. The particular case of Moët Hennessy Brazil is relevant because of the ascending path that the corporate took over the 40 years of presence in the Brazilian territory; becoming the 1st Brazilian estate to produce only sparkling wines – since late 90s – representing 52% of the estate's share of the Brazilian super premium sparkling wine market (LVMH, 2019).

2. PRELIMINARY LITERATURE REVIEW

Globalization is the process of integrating nations and peoples into a larger community through culture, economics and politics (Levitt, 1981). From the economic point of view, it's the opening and deregulation of commodity, capital and labor market that lead towards present neoliberal globalization (Fotopoulos, 2016). Thereby corporates, as economical actors, understood the globalization of markets as an opportunity to extend their businesses seeking to increase profits.

Corporates involved in the globalization system are corporate with pre-established business strategies and strategic decision-making. Basically, a strategy is a long-term vision of an organization. However, more technical features can provide a broader description: the long-term direction of an organization which seek to overcome competition thanks to its resources and advantages in different environment with the purpose of satisfying stakeholder expectations (Johnson et al., 2009). At the international scale, the definition and determination of strategies can suffer modification due to the risk incurred by investing in unknown markets with different business and cultural methods. Based on those features the concept of a multicultural strategic management is essential. Considering that behavior can be different countries from countries, those behavior must be studied and including into managerial strategy. In our case study, the choice of production method, for instance, can be seen as part of this strategy.

One of the main challenges of internationalization strategies is the choice of the country; based on the ratio added value and risks it can bring to the corporate in its market of operation. The emerging countries have an undefined and unprecise terminology (Meschi and Prévot, 2016). Commonly, “emerging countries” is the denomination used. It's in the early 1980s that the expression has been employed for the first time, developed by the World Bank but initially created by Antoine Van Agtamael. Emerging countries are countries in the process of industrialization with a rapid transition and high growth rates which reflects opportunities of investment but in an economic environment riskier than in countries defined as developed (World Bank). Along this definition criteria have been established: Gross National Product (GNP), or the level of integration in the world economy. Regarding the countries concerned there isn't an official list, however international economic institutions as International Monetary Fund (IMF) created acronyms in order to gather the emerging countries the best-known being BRICS (Brazil, Russia, India, China, South Africa).

In 1973, in *Garibaldi, Rio Grande do Sul* Brazil, was inaugurated *Möet Hennessy do Brasil – Vinhos e Destilados Ltda* from the mother company *Maison Moët & Chandon*. Today, the company is an absolute leader in the segment of luxury natural sparkling wines. Besides being producer, *Möet Hennessy do Brasil – Vinhos e Destilados Ltda* is acting as a retailer, distributing the other recognized beverage of the group like champagne, wines, distilled beverages, into the Brazilian market.

3. MAIN PROBLEM

The main problem to be investigate in this case study is to understand how the Möet Hennessy internationalization strategy was successful and led to a long-term subsidiary in an emerging country. This problem provides various sub-problems which are related to the analyze of the Brazilian market, to understand to entry mode chosen, and the evolution of the winery market and its impact on the corporate's strategies.

4. RESEARCH METHODOLOGY

We conducted a qualitative research, based on documents and interviews. The documental analysis will provide an overview of the historic trajectory of Möet Hennessy Brazil. Interviews will be realized with individuals in direct connection with the corporate object of the case study in order to understand the internal process and strategic decisions.

5. PRELIMINARY FINDINGS

After a first interview conducted in May 2019 with Philippe Mevel, Chandon Brazil Chief-Director, regarding the representation of the product – wine – into the Brazilian imaginary, we were able to point out some of the strategies adopted by the corporate in order to adapt to this market. The choice to no longer produce still wines to focus on the main sector of sparkling ones; the choice to use the Charmat method to produce its sparkling wines differing from the method used in its headquarters in Champagne, called traditional or champenoise; the agricultural management installed to avoid fungus disease by harvesting greener grapes providing more freshness into the final product with the cost of lack of body. These decisions lead to very different product from the ones produced in France, even though, it helped to build a strong brand identity – regarding the taste of the wine.. In this case, very similar to the strategy adopted by the big players in Champagne.

As the research is at its initial stage, the findings are limited to the documents previously mentioned and to hypothesis made based on the information's made available by the corporate waiting for the scheduling of the next interviews to explore other axes related to its strategy in the Brazilian emerging market.

6. CONCLUSION AND MANAGERIAL IMPLICATIONS OR RECOMMENDATIONS

The preliminary results have arisen three points to focus on for the further steps. First, the processes and the decision-making regarding the selection of the market to invest on. Secondly, based on the entry modes provides by the literature the purpose is to understand the one chosen

by Möet Hennessy to settle in Brazil. Finally, the interest will be focused on the trajectory followed by the corporate through the local market evolution and its particularities.

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Premiumization Strategy “à l’ukrainien”: Case Study of Sparkling Wine Producer

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Abstract

◦ *Purpose – The purpose of this study is to investigate how “Artwinery”, the biggest Ukrainian producer of sparkling wines, adjusts its strategy to changes in external environment caused by eurointegration and wine market liberalization*

◦ *Design/methodology/approach – Institution-based view and case study method have been applied to investigate which strategic response has been selected in this context*

◦ *Findings – Premiumization strategy is the company’s reactive response to “push’ factors like increased competition with producers from EU on domestic market, cost base enlargement, impossibility to maintain price level - and, by contrast to conventional views, is not driven by “pull” factors like high prices and marginality of high-quality sparkling wines that attract new incumbents*

◦ *Practical implications – Quality of products, access to financial resources and competitive cost of borrowing in the context of Ukraine’s eurointegration could be considered as key success factors when implementing premiumization strategy in wine sector*

Key words: Ukraine; eurointegration; sparkling wine; premiumization strategy

In 2014 Ukraine signed Association Agreement (AA) with EU. The process of eurointegration resulted in new “rules of the game” [North, 1990] - market liberalization, full accessibility and openness to EU wines. According to preliminary official statistics (<http://www.ukrstat.gov.ua/>), with the abolishment of import duties since January 1st of 2021, by the end of 2021 the import of sparkling wines to Ukraine jumped by 44% and achieved USD 54.7 million - 44% more comparing to 2020 and 2.6 times higher than 5 years ago. Local wine production in 2020 was circa ten mln decaliters (of which sparkling only 2.7 mln decaliters) comparing to 19.6 mln decaliters in 2018. Over the last past 5 years, local wine production has decreased by 39%. In fact, Ukrainian wineries are losing their competitiveness, market shares and positioning to competitors from EU.

This paper is a case study dedicated to the strategy of “Artwinery”, the biggest Ukrainian producer of sparkling wines in the country after the loss of Crimea, and the purpose of the study is to investigate how the “Artwinery” adjust its strategy to new challenges (<https://artwinery.com.ua/>) and responds to negative impacts provoked by the eurointegration. Winery’s annual production capacity is around twenty-five million bottles based on the “méthode champenoise. And “Artwinery” is intended to protect its current market share of 24-25% against producers from EU that are aggressively exploring opportunities in Ukraine. In addition, due to Russian embargo to import Ukrainian wines, “Artwinery” must offset occurred losses in sales by looking for alternative export markets. However, European market is not so freely accessible for Ukrainian wine because of protectionist measures – requirements for quality’s certification and other barriers.

The literature focused on the problem of dealing with changes in external environment through the choice of an appropriate strategy is quite extant and provides various conceptual frameworks and perspectives that could be used for this case analysis. First of all, the institutional perspective or “institution-based view of strategy” [Peng, 2003; Peng et al., 2008] is the most relevant to investigate and explain how firms respond, what strategic choices were made and why. The institutional perspective gained popularity and various institutional strands were integrated in nonmarket strategy (NMS) literature [Henisz & Zelner, 2003]. Among the stream of literature focused on “strategic responses” there are few seminal works [Oliver, 1991 ; Dorobantu et al., 2017 ; Khanna et al., 2010 ; Doh et al., 2017 ; Pache & Santos, 2012]. Frameworks and lenses from those works will be used to see how “Artwinery” responds and understand its strategic response. The most interesting is to check if the response fits to already known typologies or not and why. As well, to benchmark it with responses of other companies.

In addition, the mentioned typologies could be useful for theories testing in Ukrainian context and further theorizing especially if responses differ significantly from various benchmarks.

Case studies method is chosen [Yin, 2014]. Research designed as exploratory single in-depth qualitative interpretive case. To answer those research questions, archival documents and various sources of qualitative and quantitative data were collected. Data collected at interviews was analysed according to Gioia methodology [Gioia, 2013].

Obtained data and the preliminary results show that the applied technology (méthode champenoise) seriously affected its business model with those key elements: long production cycle, “make-to-stock” approach with important level of inventories. Therefore, such business is quite “capital intensive.” However, the prohibitive cost of short-term and medium borrowing from local banks in Ukrainian currency – UAH (hryvnia) - within the market range 17-25% over last few years represents a big disadvantage while the access to a cheaper foreign capital is extremely limited. Available equipment is quite old and requires modernization which is done at extremely low pace because of financial constraints.

Previously, high quality grapes and wine materials were supplied from the Crimea. Now, due the disruptions in supply chain, “Artwinery” uses alternative sources of supplies but with unstable quality. As the surface of vineyards in Ukraine is decreasing (currently – about 41.5 thousand ha), competition for best materials pushing purchasing prices up. According to “Ukrvinprom” (<https://ukrvinprom.ua/>), from 2019 to 2022 overall increase of costs was circa 160% and was driven by the prices of energy, transportation, labour costs, raw and other materials (corks, caps, bottles etc.). With such cost base it is not possible to maintain the price level and profitability. Those are “push” factors for shifting to premiumization strategy and moving to a premium sparkling wine segment where higher costs are easier accepted by customers but require higher quality which is problematic with old equipment and issues with the supply of grapes and wine materials. So, in such context “pull” factors - higher prices and marginality of premium quality sparkling wines – are not key reasons for selecting premiumization strategy.

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The Importance of Brand Heritage Identity: An International Study of Family-Owned Wineries

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Abstract

◦*Purpose* – The brand heritage identity (BHI) of a firm can be nourished by product features, historical events but also family heritage. However, the impact of family in defining BHI has yet to be empirically tested. This study examines how BHI is positively driven by family dynamics and specifically by increased involvement in a firm by family members. The objective being to highlight if BHI can be a critical marketing argument.

◦*Design/methodology/approach* – A quantitative study of almost 250 wineries in France and Italy was conducted.

◦*Findings* – The results demonstrate that family firms with more family involvement put more emphasis on their BHIs and this positively influences brand performance. Age of the firm is an important factor through which BHI influences brand performance of family-owned firms.

◦*Practical implications* – This comparative cross-cultural study highlights the importance of family in the creation, development, and continuity of BHI of firms and the marketing strategies they adopt.

Key words: Brand Heritage Identity; Wine; Family Business; Origin; Communication

Are Central Coast (California) Wineries Prepared for an Unexpected Crisis or Disaster?

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Abstract

◦*Purpose – This paper examines the perception of winery personnel in a major wine region of the U.S. on their winery's level of preparedness for an unexpected crisis or disaster and ability to recover should such an event occur. This paper developed out of a project in an undergraduate capstone Senior Project course.*

◦*Design/methodology/approach – We administered a survey instrument in in-person interviews with winery personnel and employed ANOVA analysis to analyze and interpret the results.*

◦*Findings – While we are still in the process of interviewing winery personnel, employee level (owner or senior manager, manager, staff) seems to have the largest effect on the perception of winery preparedness. Although the employee level differences remain, employees across the board indicate a higher perception of preparedness for changing COVID pandemic conditions than for other crises or disaster or for questions about an unspecified crisis or disaster.*

◦*Practical implications – This study has the potential to identify areas in which wineries would benefit from developing better plans to prepare for or address a crisis or disaster and for offering better training for the winery personnel.*

Key words: crisis, disaster, preparedness, resilience

1. INTRODUCTION PROVIDING A BRIEF BACKGROUND TO THE NATURE OF THE PROBLEM/CASE STUDY

Wine regions around the world have been hit with sudden, unexpected crises and disasters—e.g., wildfires in multiple wine regions of Portugal, Spain, Australia, and the United States, earthquakes in Napa Valley, New Zealand, and Chile, and volcano eruptions in the Canary Islands. The COVID pandemic affected every wine region—that have collectively resulted in billions of dollars of losses.

This paper examines the perception of winery personnel in a major wine region of the U.S. on their winery's level of preparedness for an unexpected crisis or disaster and ability to recover should such an event occur. This paper developed out of a project in an undergraduate capstone Senior Project course.

2. PRELIMINARY LITERATURE REVIEW

Disaster preparedness for organizations has been studied from numerous perspectives and using both theoretical and empirical approaches. For example, Pearson and Clair (1998) offers a comprehensive theoretical treatment of crisis management, and Nathan (2000) examines the paradoxical nature of a crisis as creating both threats and opportunities. Penrose (2000) studied the role of perception in crisis planning, and Fowler, et al., (2007) develop a scale to measure perception of organizational preparedness.

Research in this area focused on the wine industry is much more limited. Gilinsky, et al., (2020-a) conducted an exploratory investigation into strategic resilience in the wine industry, developing and comparing multiple case studies via content analysis using four bonded wineries in Napa and Sonoma counties to develop four conceptual constructs of organizational resilience. Gilinsky, et al., (2020-b) conducted an online survey of the perceptions of winery personnel based on the survey instrument in the Fowler et al. (2007) study and used factor analysis to distinguish between preparedness and resilience, similar to what McEntire, et al., (2002) refer to as disaster-resistant and disaster-resilient communities. This study is a replication and extension of the survey in Gilinsky, et al. (2020-b).

3. A CLEAR FORMULATION OF THE MAIN PROBLEM(S) TO BE INVESTIGATED

This paper examines the perception of winery personnel in a major wine region of the U.S. on their winery's level of preparedness for an unexpected crisis or disaster and ability to recover should such an event occur. We investigate differences in the characteristics of the winery and the level of the winery personnel to identify factors that affect the perceived level of preparedness.

4. ENVISAGED RESEARCH METHODOLOGY

We administered a survey instrument in in-person interviews with winery personnel and employed ANOVA analysis to analyze and interpret the results.

5. PRELIMINARY FINDINGS

We are still in the process of interviewing winery personnel. Based on the results from the initial 53 respondents from 18 different wineries, employee level (owner or senior manager, manager, staff) seems to have the largest effect on the perception of winery preparedness. Most other factors, such as the size, age, or ownership structure of the winery, have not produced statistically significant results, but we believe that the small sample size to date has influenced these results. Although the employee level differences remain, employees across the board indicate a higher perception of preparedness for changing COVID pandemic conditions than for other crises or disaster or for questions about an unspecified crisis or disaster.

6. CONCLUSIONS AND MANAGERIAL IMPLICATIONS OR RECOMMENDATIONS

We believe our paper has to potential to identify areas in which wineries would benefit from developing better plans to prepare for or address a crisis or disaster and for offering better training for the winery personnel.

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RETAIL & HOSPITALITY

Wine selection in Austria's Leading Discount Supermarkets Changes in Offerings, Origin and Price Between 2006 and 2018

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Abstract

◦*Purpose* – The purpose of this study is to explore grocery discount stores as a distribution channel for wine in Austria. A comparison of wine assortments in discount stores in regards to assortment size, wine colour, style, alcohol content, grape variety, country and region of origin, price and bottling is made to identify trends within discount supermarkets wine selection.

◦*Design* – Through a quantitative content analysis the current wine assortment in pre-selected discount stores was made. The findings were compared to data from a previous study in 2006, to examine the main changes and trends of the wine assortment of Austria's leading discount stores.

◦*Findings* – Major findings include the range and size in wine selection, with an increase by more than 100% in the overall wine assortment in the analysed discount stores. Changes in colour preferences; red wine significantly decreased and the white wine share increased. This research shows a shift from foreign to domestic wines, where consumers are more aware of regional products. Nevertheless, important players of foreign wines include Italy, France and Spain. The major trends show a focus on origin, acceptance of specialties and pricing.

◦*Practical implications* – Results are meaningful for Austrian and foreign wineries, in order to successfully distribute their wines in Austria's leading discount stores.

Key words: Austrian wine, wine assortment, discount supermarkets

1. INTRODUCTION

The rise of discounters is a key driver of structural change within the grocery retailing (The independent, 2014). The growing popularity is not just based on fads and fashion, discount retailers have become a sustainable player of the grocery market. The idea behind discounters consists of low prices and the abandonment of big assortments, brand articles and services (Planet Retail, 2014, p.39). However more discounters trust in the enlargement of their assortment, the addition to services and brand articles, as well as upgrading store design (Rose, 2017a, pp13.14).

According to the Austrian Wine Marketing board (2018), the domestic grocery retail market represents one significant and strong distribution channel for Austrian wine business, from which cellar door sales suffer. The share of direct wine sales decreased by more than 7% from 2009-2016, and the shares of wine sales by grocery retail supermarkets increased by 12.2% (Austrian Wine Statistics Report, 2018). Due to these trends one can assume that discount stores are becoming an important distribution channel for Austrian wine.

2. THEORETICAL BACKGROUND

In 2018, an average of 242 million litres of wine was consumed in Austria. The majority (135.0 million litres or 55.7%) was consumed on-trade or at events. A further 94.8 million litres (39%) was consumed by Austrian households and mainly purchased in multiple supermarkets. Tourists purchased approximately 12.1 million litres (5%) of wine. (Austrian Wine Statistics Report, 2018)

Although Austria is only a small European wine consumer in terms of volume, per capita wine consumption is relatively high at 27.1 litres. This is well above the average European per capita wine consumption of 23.9. litres in 2015 (CBI Ministry of Foreign Affairs, Austrian Wine Marketing). Consumption at home includes all wine purchases bought at wineries, in multiple grocers, or in other outlets such as specialist retailers. In 2018, home consumption in Austria accounted for 53.2 million litres of Austrian wine (+3,91% compared to 2017), and sales revenue amounted to EUR 271.3 million (+5,6% compared to 2017) (Austrian Wine Statistics Report, 2018).

The grocery retailing has gone through significant changes during the last 30 years. A variety of grocery store alternatives has emerged, including supermarkets, hypermarkets, discount stores, convenience stores, specialty retailers, gas stations, and online supermarkets. This

development has made a significant impact on the sectors and the concept has experienced considerable expansion (Denstadli et al, 2003).

Recent figures show that discount grocery retailing is present in all Western European Countries, with approximately 30,000 outlets trading under 72 brand names and with an overall market share of 15% of total food sales (Colla, 2003). Western retailers have become involved in a market share battle, from which the discount format emerges as one of the few formats that manages to consistently grow. In 2002, all regular German grocery retailers experienced a considerable sales drop, while leading discount chains such as Aldi and Lidl grew by 15% (IGD Research, 2002). This success has led to an expansion of the discount format across European markets, where Aldi and Lidl operate thousands of outlets in more than ten countries (Deleersnyder, et al. 2007). According to Nielsen, the most important Austrian food retail companies measured by the number of outlets in 2016 included Rewe, Spar, Markant Austrian, Hofer, MPreis and Lidl (Nielsen, 2017a). Rankings in 2016 based on the largest Austrian Food Retail Companies by turnover, market share, and from the “Austrian Top 100 Retailers” by turnover; **Hofer, Lidl, and Penny Markt** represent the three most popular and leading discount stores in the Austrian food and retail market (Statista Austria, 2017). Hofer is the most important Austrian discounter with an estimated turnover of four billion Euros in 2016, followed by Lidl with 1.36 billion Euros and Penny Mark with 0.9 billion (Statista Austria, 2017a).

Researchers have described consumer wine research as follows “wine is an information intensive experience product and by virtue of this, the buying situation is often regarded as a complex one in which a high degree of associated risk is perceived” (Bruwer et al., 2010, p.5). Depending on the wine involvement level of a customer, Bruwer and Hirche (2014), studied the customers behaviour in the retail environment, knowing the customer base and their level of wine involvement is important for wine retailers, since factors influencing the wine buying decisions differ between low involved and high involved customers. Low involved consumers spend less money on wine on a monthly basis and purchase wine less frequently than high involved wine consumers. The most important factors to low involved consumers include wine style, country of origin, and price. Following these factors the brand and grape variety are considered. (Bruwer and Hirche, 2014, pp295-310)

Based on a wine buying behaviour study in supermarkets, Ritchie et al. (2010) concluded that wine is bought like any other grocery item and the purchase motive is largely driven by price considerations and discounts offered (Ritchie et al., 2010).

In 2014, (Hoffmann and Szolnoki, 2014b) dealt with the typical supermarket wine consumer in their research on German wine consumers. Their research includes those customers, who mainly purchase wines in supermarkets, discounters or wholesales. The most crucial factor influencing the buying decision of a German supermarket consumer are price and taste. (Hoffmann and Szolnoki, 2014b)

Also, country of origin considerations places a lot of value on the image of the country the product is associated with (Erickson et al, 1984). Packaging and labelling of wine are an important consideration for consumers (Lockshin et al., 2012). Other studies reveal the importance of label image and colour in influencing consumers wine preference (Barber et al, 2007).

The first official study analysing the wine assortment of Austrian discounters was conducted by Kirchberger and Stöckl in 2006/2007. The wine offerings of Hofer, Lidl and Penny Markt were analysed due to an increasing competition in wine retail, especially regarding the lower priced wine segment. The authors concluded that discount stores are extremely fast in adapting their consumers demands and studying their assortments provided deeper insights in discount wine consumers preferences. Findings from the 2006 studies revealed that the three discounters include a total offering of 113 wines, excluding rosé, sparkling, Tetra Pak and fortified wines. Penny Markt provided the largest offer (38.9%). Illustrations also showed that over half of the offerings (52.7%) consisted of foreign wines, Italy being far ahead. Further listings included Spain, Australia, USA, France, Chile and South- Africa (descending order). Kirchberger and Stöckl (2007a) compared pricing; more than three fourths of the wines offered were priced below EUR 3,- and almost all of the wines offered cost less than EUR 5,- Only 1.8% analysed lay above EUR 7,- (Kirchberger, T. and Stöckl, A., 2017)

3. RESEARCH OBJECTIVES

The aim of this study is to analyse the wine selection of Austria's leading discount stores compared to the product range of a previous study from Kirchberger and Stöckl (2006). The stores Hofer, Lidl and Penny Markt were chosen as these retailers are leaders in discount food retailing in their domestic markets holding substantial market share. They are also present in other European countries. They can especially be found in those countries where there is high purchasing power, and supermarkets are key formats (Colla, 2003).

What is the product range assortment of wine offered in Austria's leading discount stores Hofer, Lidl and Penny Markt in terms of package size, colour, wine style, alcohol content, country and region of origin, price policy?

Rose (2017b) pointed out that the grocery retail environment, especially those of discount stores, constantly change. Discount stores have to adapt to market changes in order to be successful. “therefore the discount retail experiences a paradigm changes and thus enables a stronger adaption to actual developments and altering consumer needs (Rose, 2017b, p.52). Hence, the second question:

What changes can be found in the assortment of wines in Austrias leading discounters Hofer, Lidl and Penny Markt between 2006 and 2018?

4. RESEARCH PROCESS / METHODOLOGY

Content analysis is an increasingly used method in today's social research (Bowen, 2009) and is regarded as a flexible method for the analysis of data resulting from a text (Cavanagh, 1997). It is an empirically grounded method, it transcends traditional notions of symbols, contents, and intents, and it has been forced to develop a methodology of its own (Krippendorff, 2004). It is not only based on written material, but data such as works of art, images, maps, sounds, signs symbols, and even numerical records. The media must “speak to someone about phenomena outside of what can be sensed or observed” (Krippendorff, 2004, p.19). The analysed contents can be used to track messages over time, to asses changes or detect trends” and are useful for building a database (Amundsons et al., 2002, p.227). The basic principle of content analysis is the analytic procedure which entails finding, selecting, appraising and synthesizing data (Labuschafne, 2003).

A detailed investigation on Austrian wine production, wine consumption, wine imports and the Austrian food retail market was made, including a comparison to data from 2006 (Kirchberger and Stöckl, 2007) in order to examine if there are any changes within the wine assortments of Austrian's leading discounters.

4.1. Selection and Sampling

Information provided by Hofer, Lidl and Penny Markt and their assortments were evaluated. Lidl and Penny Markt reported that slight differences may occur from stores located in rural compared to urban areas, like Vienna. Hofer indicated that the wine assortment in all Austrian Hofer stores is equally equipped. Therefor Hofer, Lidl and Penny Markt located in the city of Krems as well one of each located in Lienz and Vienna were chosen. The content was chosen

by full size sampling, meaning that entire wine assortment of the chosen discount store was collected for data analysis with exclusion of sparkling and fortified wines.

In order to observe and quantify categories of content, relevant variable representation was defined, following a store visit for documentation of the entire wine assortment. The use of Excel pivot tables provided overviews of frequencies and correlation. In total 262 wines were recorded and analysed.

5. RESULTS FINDINGS

Hofer offered 87 (33,2%), Lidl 88 (33,6%), and Penny Markt 87 (33,2%) different wines. Compared to the analysis in 2006 (Kirchberger, Stöckl, A. 2007a,) an increase in terms of assortment size was detected. All three discounters expanded the size of wine assortment by an average 53,3% from 2006 to 2018. Largest increase could be observed at Lidl (+55 wines), Hofer (+42 wines) and Penny Markt (+34 wines). The results in 2006 did not include rosé and Tetra Pack wines, which are included in these results. From the 262 different wines offered by the three chosen stores, 215 wines (82,1%) were offered in 0,75 l bottles, 12,6% (33 wines) in 1, 1.5, or 2 l bottles and 14 wines (5,3%) in bottles smaller than 0,75l. No comparisons exist to 2006 as the previous study did not include size and type.

From the total, 50% (131 bottles) accounted for red and 46,2% (121 bottles) accounted for white wine. Also, one orange wine (offered by Hofer) which was included in the category white wine. The remaining ten bottles (3,8%) was rosé wine. Compared to 2006 an increasing trend towards white wine could be observed. From then the share of white wine increased by more than 8%, which equals almost the overall assortment size of red wine in 2018. Regarding the wine style, 218 bottles (83,2%) of all wines offered were dry, followed by 12% (32 bottles) of semi-dry wine and ten bottles (3,8%) sweet wine. The wine assortment offered by Hofer included the highest share of dry wines (78 bottles), followed by Lidl and Penny Markt (70 bottles each). The biggest assortment of semi-dry wines was found at Lidl (15 bottles) followed by Hofer (9 bottles) and Penny Markt (8 bottles).

The total assortment of wines dominated with an alcohol content of 12,5% and 13,0% vol. (108 bottles). The second strongest were those with an alcohol content of 11,5% and 12,0% vol. (85 bottles). The overall assortment of wines can be divided into four categories of grape varieties. Single varietal wines (55,9%, 146 bottles), representing the largest category, followed by Wine blends (24,4%, 64 bottles), wines with no indication of variety or blend (17,2%, 45 bottles) and wines from Gemischter Satz (2,7%, seven bottles). All together diversity of 33 single wines

were offered. The leading ones included Grüner Veltliner and Zweigelt with a share of 9,2% each. Compared to the findings of Kirchberger and Stöckl (2007a), the overall wine offer increased from a choice of 23 to 33 different single varieties.

Each of the three discount stores offered more than 50% Austrian wines within their product range. Besides Austrian wines, wines from twelve other countries and wine with no single country indication were offered. Italian wines were the far most offered foreign wines, followed by Spanish and French wines. Remaining countries of origin included South Africa, Chile, USA, Australia, Hungary, Croatia, Slovakia, New Zealand and Germany. (listed in decreasing order) Compared to figures of 2006 (Kirchberger & Stöckl, 2007a) one can conclude that in the past twelve years, the Austrian discount retail underwent a significant change in terms of wines of origin. All three discounters offered 53% of wines from abroad. Today, the offer of all three discounters is dominated by Austrian wines. Most indicated regions of Austria were Burgenland (82 bottles) and Lower Austria (65 bottles), from Italy; Tuscany and Veneto (eight bottles each), Spain; Castilla-La Mancha (three bottles) and Valencia (two bottles) and France with Bordeaux (four bottles). Altogether 24 different regions of origin are found at Hofer, Lidl and Penny Markt.

The discounters wine prices were analysed on the base of Hoffmann's (2008) price segmentation and included generics (below EUR 3,-), Basis (EUR 3,- to EUR 5,-) Premium (EUR 5,- to EUR 10,-). Most of the wines fell into the category Generics (40,4% and 106 bottles) and cost less than EUR 3,- Generic wines were almost equally distributed at Hofer (35 bottles), Lidl (35 bottles) and Penny Markt (36 bottles). The Basis price segment included an overall 85 wines (32,4%) and represented the second most important price segmentation of the overall assortment of discount wines. The third most strong price segmentation represented Premium wines (25,2% and 66 bottles) ranging from EUR 5,- to EUR 10,- accounting to one fourth of the entire wine selection. The smallest wine segmentation fell into the price segment Super premium, with a price range from EUR 10,- to EUR 25,- and only five wines could be detected in this segment. Compared to the results from Kirchberger and Stöckl (2007a), the wine prices at all three discount stores have increased. In 2006, all three discounters supplied 77% of their wines at prices EUR 3,- whereas in 2018, this share of 77% decreased to 40,5%.

6. THEORETICAL AND MANAGERIAL IMPLICATIONS

With the help of these results, it seems worthwhile exploring additional trends in discount food retailing to also observe how the wine market will further position itself in discount stores, as

well as at what price range. According to Anchor et al, (2009) it is argued that the range, quality of product, ease and efficiency of shopping (knowing the store layout) and price are the key factors for regular supermarket shoppers. Trust grows with a regular shopping experience (Anchor et al., 2009). Therefore it would be interesting to look into service level of shop assistant helpfulness, physical facilities such as waiting time, layout, quality level, recommendations which are based upon acceptance of store reputation. Analysing further trends in Austria's leading discount supermarket stores would be beneficial, especially when using discount retailing as a point of sale.

7 CONCLUSIONS

The wine assortment of Austria's leading discounters showed significant increases by more than 100% between 2006 and 2018. This study shows a strong increase of the average price between 2006 and 2018. Half of the wines in 2006 were below EUR 3,- and in 2018 vice versa. The average price for a bottle of wine in 2018 at Hofer is EUR 4,46 (compared to EUR 2,83 in 2006), at Lidl the average price is EUR 4,34 (compared to EUR 2,45 in 2006) and Penny Markt EUR 3,97 (compared to EUR 2,82 in 2006). In 2006 the average price for a bottle of wine at these supermarket discounters was EUR 2,70 compared to 2018 at EUR 4,26. This represents an increase of 58%. These results are because of general price increases, and due to more expensive wines added to the product assortment in 2018 and hence the average price is significantly higher. Noticeable is the strong presence of domestic wines in comparison to foreign wines. Changes also occurred in regards to colour preferences, where an almost equal distribution of white and red wine is noticeable, which follows the trend of domestic wine consumption. The alcohol contents of the overall wine assortment increased. In 2006 the foreign wine offer was dominant, and in 2018 more than 60% of the overall wine offer in Austria's discount supermarket consisted of Austrian wine. Nevertheless important players of foreign wines include Italy, France and Spain. Currently the most important grape variety wines are Grüner Veltliner and Zweigelt, followed by Welschreisling and Blaufränkisch. The overall assortment range is more diverse and niche products and specialties were added to the discounters' wine selections.

The findings indicate that along with the overall paradigm changes of Austrian discount stores, the wine assortment has changed to a larger assortment, more diversity and larger price span.

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Price Dispersion of Wine in U.S. Michelin Starred A Developmental Research Paper

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Abstract

◦*Purpose* – This study investigates price dispersion of wine among competitive, highest rated restaurants in the U.S.; 2021 fourteen “Three Michelin Stars” restaurants. The objective is to gain an understanding of the underlying strategies restaurateurs use to determine the selling price advertised on their wine list. Specifically, we investigate the potential influence factors including exclusive wine inventory e.g.: wine styles, varietals, country of origin; ratings and points awarded, wine cellar management, menu items, demand forecast, and economic risk factors such as wine vintage, potential aging, and longevity.

◦*Design/methodology/approach* – This is the first study that investigates and contributes to the body of knowledge of Wine Pricing Strategies, Wine Pricing Modeling, Wine Pricing Discrimination, and Wine Price Dispersion in “Three Michelin Starred Restaurants in the U.S. Within this context, we focus on the “wine price dispersion” between fourteen highest rated U.S. restaurants according to the Michelin Restaurant Rating System’s criteria. Accordingly, the quality of the wines, the scope, and breadth of the exclusive inventory, the sensory evaluation of wine and food for pairing strategies are some of the important factors considered to receive a three-star award.

This research is based on various qualitative and quantitative methodologies including investigative triangulation techniques. We collect data directly from restaurants that are readily available online and through written requests from the operations. We use the hedonic price model with fixed effects to control for city and state effects as well as regulatory differences resulting from the three-tier system.

◦*Findings* – This is a work in progress. To date, we have collected data from eleven of fourteen three Michelin starred U.S. restaurants, a participation rate of 78.6%. Due to the challenge in

investigating price discrimination of wines for sale in participating restaurants where wine prices constantly change, usually a change in price increase, we use exclusively the data collected during the month of February 2020 to conduct the analysis. Given the fact that prices fluctuate, the results of this analysis will enable us to provide a baseline framework defined as “that point in time” reference for future research. Preliminary results show that wine lists’ content of participants ranges from 35 to 192 pages. The estimated total number of wines offered ranges from 800 to 4,900; the largest physical cellar inventory is estimated to consist up to 22,000 bottles and selling prices ranging from \$50.00 to \$15.500 for a 750 ml. bottle. Table 1. Shows a sample analysis of the selling price variability of the same Champagne extrapolated from the data of seven restaurants that sell the same. The selling price ranges from \$315.00 to \$5,125.00, while the average retail price is \$139.00 hence, there is evidence of price dispersion/ discrimination.

Table 1. Sample Price Dispersion from preliminary data analysis

Wine Sample	Wine Description	Wine bottle size	11/14 Participating Restaurants 78.6% participation rate - identity omitted														
			1	2	3 = NP	4	5	6	7	8	9	10	11	12	13 = NP	14 = NP	Retail Price Average
			Prices expressed in USD														
1	Champagne Agrapart & Fils, L'Avizoise 2012	750 ml	335.00	425.00	0.00	0.00	320.00	355.00	315.00	360.00	0.00	0.00	325.00	0.00	0.00	0.00	139.00

◦Practical implications – The final results of this research will contribute to the body of knowledge of general wine marketing management, global trade and global pricing strategy within the framework of wine production, operation, and global competitiveness.

Key words: price dispersion; price discrimination, pricing strategy, wine pricing competitiveness

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A Large-scale Investigation into Drivers of Effective Retail Strategies for Wine

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Abstract

◦*Purpose* – Little is known about the relationship between distribution and market share in the wine category. Understanding the pattern of the relationship, and subsequently examining the market share variations of individual wine stock-keeping units (SKUs) from expected market share, has the potential to improve the market outcomes of wine brands. Understanding the influences of product and distribution characteristics at the SKU level and incorporating them into marketing strategy and planning has important managerial implications.

◦*Design/methodology/approach* – Sales of 3,524 wine SKUs across 4,218 stores and 4 states in the US for the year 2014 are analysed. We use the Reibstein-Farris equation (Reibstein & Farris 1995) to model the relationship between distribution and market share. We then use the market share deviations from the expected values and apply a secondary robust regression to investigate possible relationships between various product- and distribution characteristics and those market share deviations.

◦*Findings* – The results show that the distribution and market share relationship in the wine category is convex and increasing, in line with previous findings for other consumer-packaged goods in the marketing literature. Beyond distribution breadth, we find that overall brand performance (above), unit price (above), packaging type (above), country-of-origin, grape

variety, sales consistency (above) and store specialisation (below) are associated with above or below expected market performance of wine SKUs.

Key words: distribution, wine, retail, channel, strategy

Brokering the Wine Tourism Experience: Tours, Guides, and the Winescape

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Abstract

◦*Purpose* – The winescape construct (WC) has become an important device for investigating the various destination characteristics affecting the wine tourism experience (WTE). Whether measured using freeform respondent descriptions (Bruwer & Joy, 2017) or scales applied at either the micro (Thomas, Quintal, & Phau, 2018) or macro levels (Bruwer & Gross, 2017), the WC surfaces the ways in which wineries and/or the region impact perceptions of the WTE by different tourist segments (Quintal, Thomas, Phau, & Soldat, 2017, 2021). However, extant studies using the WC measure only unmediated WTEs.

While the mediating role of guided tours on tourism experiences is recognized in both the tourism (Reisinger & Steiner, 2006; Weiler & Davis, 1993) and wine tourism literatures (Carlsen & Dowling, 1998; Hall et al., 2009; Joy, Belk, Charters, Wang, & Peña, 2018) there are few studies looking at the mediation of the WC in the WTE (cf Robertson, Sears, & Weatherbee, 2018; Terziyska & Damyanova, 2020; Weatherbee & Sears, 2021).

A guided tour is “a form of tourism [with] ...direct participation by agents apart from the tourists themselves.” (Schmidt, 1979, p. 441). Hence these agents may be considered as brokers mediating the tourist experience (Weiler & Black, 2015). Brokering is multidimensional and guides therefore mediate the physical (routes, landscape views), social (encounters and interactions with locals and others on the tour), intellectual (providing knowledge of the destination and activities within it), and emotional (facilitating empathy and affinity with the landscape, locals, and tour activities) dimensions of the tourist experience (Weiler & Black, 2014). Consequently, guides mediate most of the elements of the winescape and the WTE that WC scales are designed to measure.

Do guided tours mediate the relationship between the winescape and the WTE and, if so, in what ways?

◦*Design/methodology/approach* – The Bruwer-Gross (2017) macro-winescape measure was incorporated into a survey of participants of a guided WTE

◦Findings – Mediation of the WTE was tested using regression analyses (MacKinnon, Fairchild, & Fritz, 2007). The presence of guides was found to partially mediate the wine tourists' perception of the winescape.

Key words: winescape, wine tourist experience, guides, guided tours

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GRAPES & STYLES

Consumer Perceptions of Chenin Blanc

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Abstract

◦Purpose:

The purpose of the study is to identify consumer perceptions and attitudes towards Chenin Blanc and determine recommendations to increase sales in the U.S. market for Chenin Blanc as a category.

◦Design/methodology/approach:

The methodology involves a combination of different techniques: (1) a short survey followed by a (2) wine tasting where the consumers will taste 4 Chenin Blanc, 1 Riesling and 1 Chardonnay, followed by (3) a focus group discussion.

The focus groups were organized and conducted by Cal Poly students in WVIT 460, Senior Project – Wine Business during the Fall 2019 quarter. Students recruited people to participate in the focus groups.

(1) The Survey

Participants were asked to fill out a short questionnaire. The questions asked in the survey provide data to segment the respondents in terms of demographics (age and gender), wine

knowledge, and wine drinking habits (frequency, typical price paid per bottle, off-premise vs on-premise habits, variety preference, and importance of wine attributes).

(2) The Tasting

Six wines were presented blind. The order of the wines was randomly determined for each focus group. The respondents tasted six unidentified wines (a blind tasting) and rated each wine on a scale of 1 (very bad) to 5 (very good), detailed its strengths and weaknesses, their willingness-to-pay and their preference in comparison with each other (rank). Four of the wines were different examples of Chenin Blanc. The remaining two were other white wines, Chardonnay and Riesling.

The four different Chenin Blancs and two other whites were:

(a) one from Loire Valley in France (higher in acidity)

2018 "Cuvee du Silex", Pascal Janvier from Jasnieres, France, \$23.00 at K&L.

(b) one from Swartland in South-Africa.

2018 Terre Brulee - Tania and Vincent Careme South Africa, \$13.00 at K&L

(c-d) two from Clarksburg AVA (Southern Sacramento, California, USA)

2018 Fellow Chenin with a retail price of \$15.99

2017 Silt Wine Company with an approximate retail price of \$25.

(e-f) two different white grapes (a chardonnay and a riesling)

2017 Chardonnay from Chamisal, Edna Valley, California, USA, with an approximate retail price of \$14 at a local grocery store.

2017 Riesling from Chateau St. Michelle, Washington State, USA, with an approximate retail price of \$7 at a local outlet of a national general retail store.

All prices are in US dollars per 750 ml bottle.

(3) The Post-Tasting Group Discussion

The focus group discussion was split into three parts and covered the following dimensions:

- First, the participants exchanged impressions about the wine perceptions for the six wines, the opportunities for food and wine pairing, the wine description, and guessed the variety.

- Second, the focus group leaders then revealed the wine, origin, variety and price for each wine and discussed their selling points, the price perception, and the willingness to buy.

- Third, the discussion after all six wines are discussed individually focused on the Chenin Blanc varietal, especially on how familiar the participants are with the variety, the willingness-to-purchase, the overall perception of the grape variety and the last time they had purchased the grape variety, if ever.

Each focus group session lasted about an hour. Eight focus group sessions were conducted, with 7 – 11 participants in each. A total of 64 people participated in the focus groups. Most participants were Cal Poly students, who came from 15 different majors. Overall, there were almost two female participants for each male participant. More than half of participants described themselves as “beginners” regarding wine knowledge, although over 70% reported drinking wine at least once a week. Also, over half of participants said they are comfortable picking a bottle of wine to purchase. Over 70% reported typically paying less than \$15 per 750 ml bottle of wine, and only one participant reported typically paying (\$30 - \$50). Price was the

most important factor in deciding which wine to purchase. All but two of the participants reported that they typically purchased wine off-premise.

◦Findings:

The South African Chenin Blanc had the highest average rating (3.18) and ranking (2.93). Around 40% rated it “good” to “very good.” The majority of Intermediate/Advanced ranked in top 2 (56%), and the majority of Beginners put it in top 3 (53%).

One of the Clarksburg Chenin Blancs (Fellows) had the second highest average rating (3.08) and ranking (3.21); 37% rated it “good” to “very good;” majority of Beginners ranked it 2nd or 3rd (51%). A plurality of Intermediate/Advanced ranked it #5 (29%).

The French Chenin Blanc had the 4th highest avg. rating (2.98), with 34% rating it “good” to “very good.” It had the 3rd highest average ranking (3.23). A plurality of Beginners ranked it 1st (32%), and a plurality of Intermediate/Advanced ranked it 2nd or 3rd (41%).

The other Clarksburg Chenin Blanc (Silt) had the lowest average rating (2.61) and was 5th in average ranking (4.16). A plurality of Beginners ranked it #5 (25%), and a majority of Intermediate/Advanced ranked it #5 or #6 (58%).

The Dry Riesling had the 3rd highest average rating (3.03) and was 4th in average ranking (3.33). A plurality of Intermediate/Advanced ranked it as their favorite wine (37%), while 26% of Beginners ranked it #1 (although the same % ranked it 5th). The unoaked Chardonnay had the second lowest average rating (2.63) and the lowest average ranking (4.18). Although 25.4% rated it “good” to “very good,” a plurality of Beginners and Intermediate/Advanced ranked it last (45% and 33% respectively); still, 20% of Intermediate/Advanced ranked it #1.

◦Practical implications:

The study may help the U.S. Chenin Blanc industry to better know their current clients and new segments to target. Awareness is a key consideration. Focus group participants were mostly unfamiliar with the varietal, and many of those who knew about it reported not ever thinking about purchasing it.

The focus group participants thought that Chenin Blanc should be marketed as good for warm summer days, beach outings, lunch, and relaxing settings. Many participants mentioned the acidity and refreshing aspects of Chenin Blanc.

For Clarksburg in particular, participants thought that there is an opportunity to develop a niche market. Since both the grape and the Clarksburg AVA are minor players in the California wine industry, participants expressed the need for producers to band together to promote the Clarksburg AVA as a whole.

Key words: Chenin Blanc, attitudes, willingness-to-buy, price perception, segmentation

The Status Elevation of South African Chenin Blanc: Old Vines as a Category Reinterpretation Schema

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Abstract

◦*Purpose – South African Chenin Blanc accounts for 18% of South Africa’s vineyard area, 53% of global Chenin Blanc production and 53% of South African old vine (OV) plantings (Budd, 2019; SAWIS, 2017). However, the category is stigmatised as a “workhorse” variety globally. In contrast, the OV category is perceived as having high status and recent OV certification has been widely embraced by South African (SA) Chenin Blanc producers. We ask: Why and how wine categories become stigmatised, and whether and to what extent the spanning of wine categories, specifically SA Chenin Blanc and OV, positively influences consumer choice?*

Market categories are socially legitimated baskets of products sharing similar attributes (Durand and Khair, 2016). Objectively evaluable, categories compete for market position, and members of stigmatised categories, with core offerings vilified and subsequently negatively evaluated face reputational challenges (Barlow, Verhaal and Hoskins, 2018; Delmestri and Greenwood, 2016). Category reinterpretation and status-change literature informed the extant understanding of category spanning, or multi-category membership, and its role in category reputation and value change (Negro, Hannan and Rao, 2011). Two divergent views illustrate the research problem. Delmestri and Greenwood (2016) argue that category status can be radically elevated by allusion, involving decoupling from the stigmatised category and associating with higher status categories. In contrast, Negro et al. (2011) argue that category reinterpretation, whereby existing categories are associated with new schema, leads to loss of consumer appeal.

◦*Design/methodology/approach – Wine media netnographic analysis, the ethnographic study of online communities (Kozinets, 2002), framed the problem. Qualitative coding of a broad sample of relevant articles raised concepts to constructs (Gioia, Corley, and Hamilton, 2012). The resulting data structure was abductively transitioned into a theoretical model explaining stigmatisation of the global Chenin Blanc category and status-elevation of the OV category. A discrete choice model (DCM), or choice-based conjoint analysis will analyse consumer preference trade-offs (Lockshin, Jarvis, d’Hauteville, and Perrouy, 2004). A set of optimal profiles with different combinations of vine age, origin, grape variety and price attributes were*

converted to digitized wine bottle images and are being presented to wine drinkers. A DCM analysis model will compute comparative utilities, importances and market simulation models.

◦Findings – Qualitative data analysis revealed three stigmatising constructs for Chenin Blanc (Figure 1). Commodifying refers to rendering of Chenin Blanc identity as a “workhorse” variety with neutral taste. Commodifying influences doubting or nagging perceptions of Chenin Blanc as mediocre, influencing market obscurity. These two constructs influence low category reputation and price (Figure 2). In contrast, three status-elevating constructs framed perceptions of OV wines (Figure 3). Premium refers to perceptions of rarity, influencing high quality and critical acclaim. Legacy involves the proud veneration of OV’s. These two constructs influence inspiration, preservation and category growth, thereby unlocking value (Figure 4). Incomplete netnographic and DMC findings preclude fully answering the question.

◦Practical implications – Theoretically, the study will provide insight into the effect of spanning wine categories with different reputations and value, specifically SA Chenin Blanc and OV. Practically, the study will provide insight into the relative demand-side utility, importance and potential market value of SA OV Chenin Blancs.

Key words: -

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Figure 1. Chenin Blanc data structure

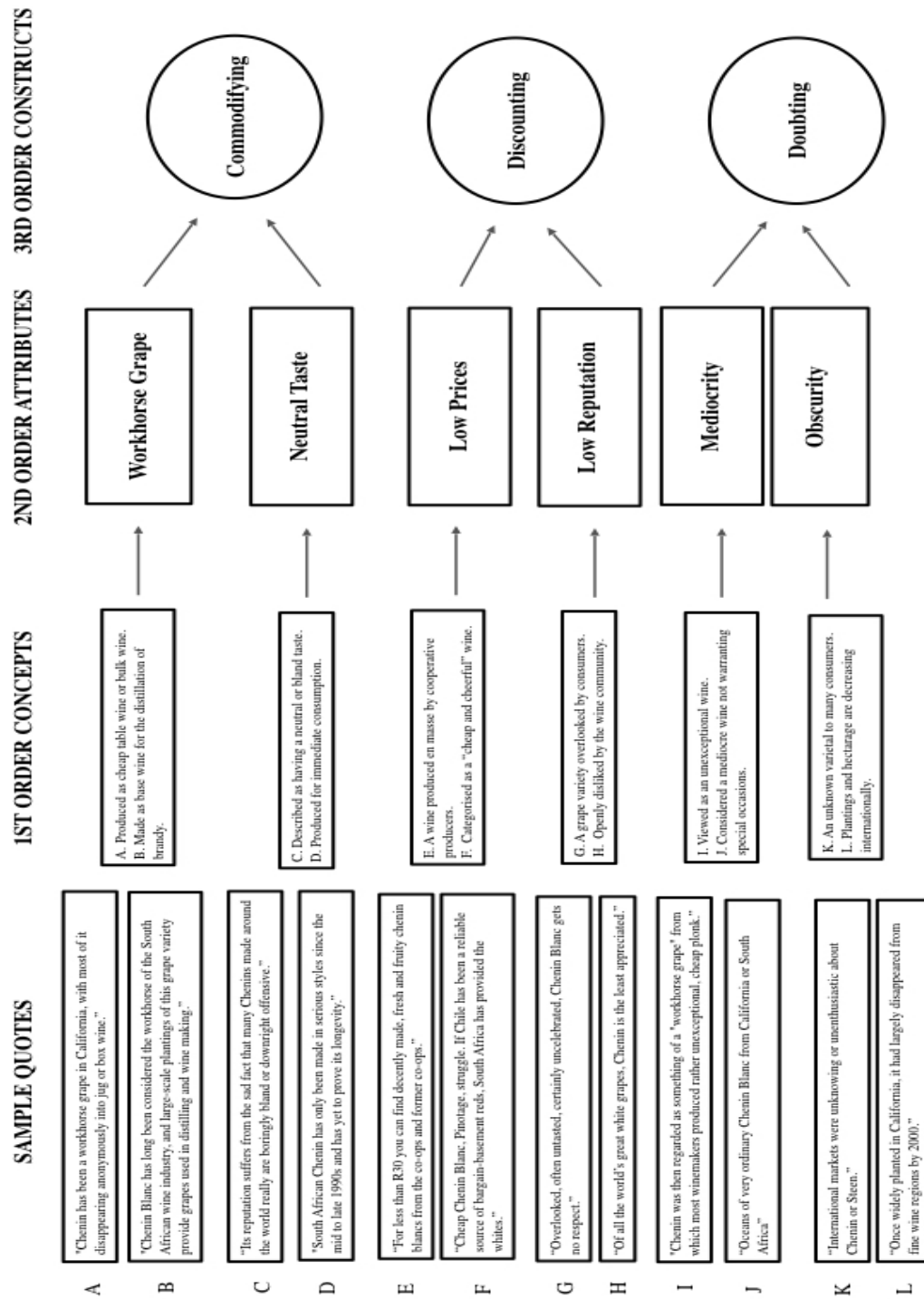


Figure 2: Stigmatisation drivers for Chenin Blanc

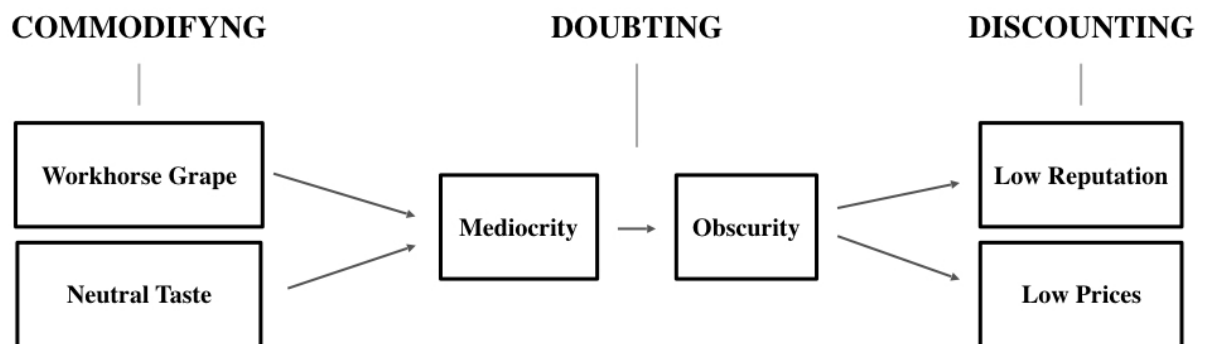


Figure 3: OV data structure

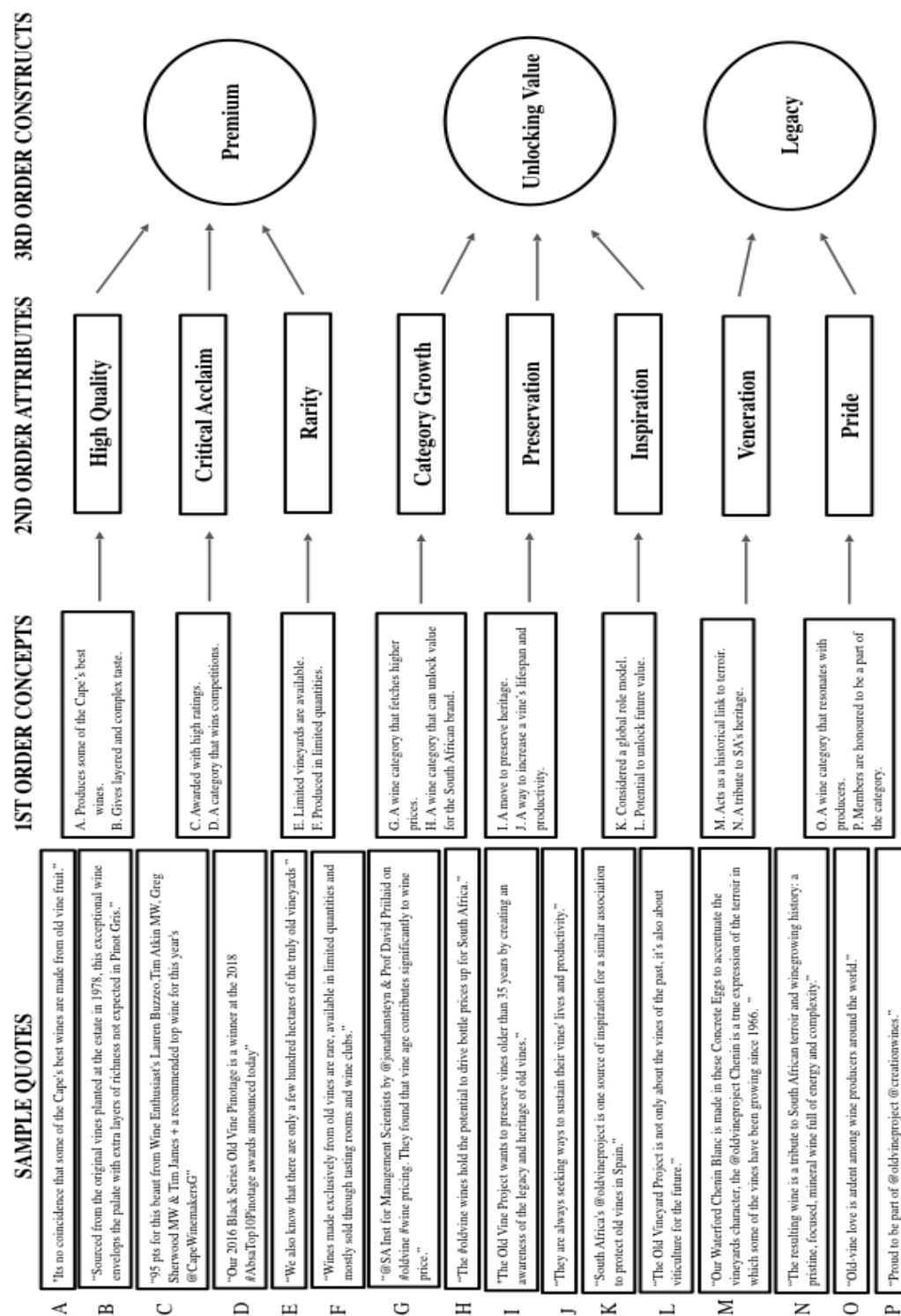
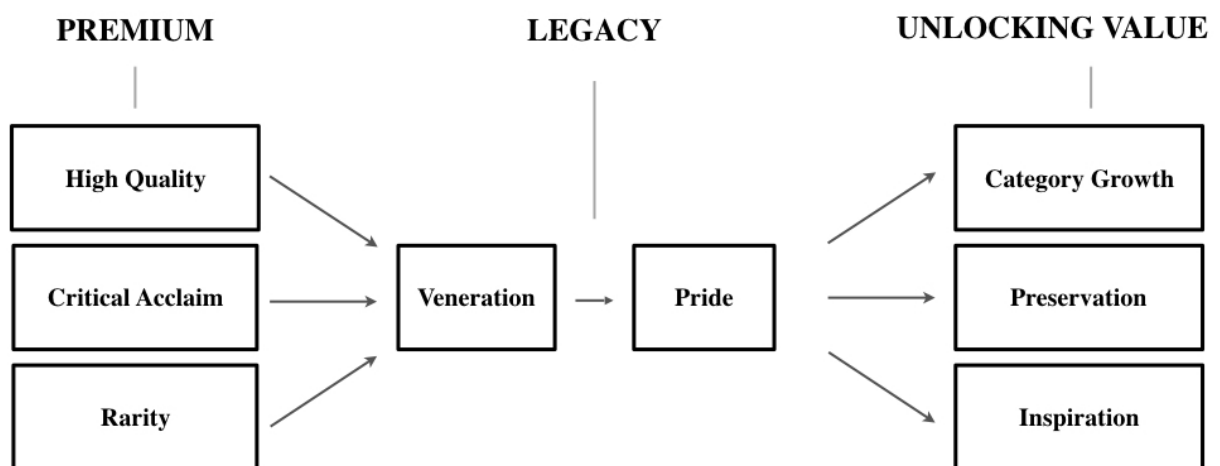


Figure 4: Status-elevating drivers for OV



A Question of Style.

An Analysis on the Use of the Concept of Style in the Wine Industry

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Abstract

◦*Purpose* – The aims of this research are to understand to what extent and how the concept of “style” is used by researchers and professionals involved in the wine business and to identify how the concept of “wine style” can be approached both in research and practice.

◦*Design/methodology/approach* – An extensive review on academic literature has been carried out, followed by on-field research by means of semi-structured interviews to renowned wine professionals and a netnographic research on wine blogs in the US, France and Italy.

◦*Findings* – Although the concept of wine style is widely used by scholars and professionals, no systematic attempts to develop a shared and consistent approach have been carried out to date; moreover, the existence of radically different ways of approaching the concept of wine style in the three markets studied emerged.

◦*Practical implications* – Stylistic consistency can play a key role in defining wineries’ production and marketing strategies and policies; research can be of help in developing tools that allow codifying and better managing a wine style

Key words: Wine Style, Identity, Marketing, Communication, Content Analysis

Rosé Wine Social Representation over three Generations: Provence Rosé Wine as a Case study

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1. INTRODUCTION AND PURPOSE

Between 2002 and 2018, world consumption of rosé wine increased from 484.1 to 677,2 million gallons (World Rosé Observatory, 2020), an increase of about 40%, France is the world leader in rosé wine; it accounts for nearly 31% of world production and 34% of world consumption. In France, rosé wine has enjoyed considerable success, increasing from a market share volume of 11% in 1992 to 34.3% in 2020 (Nielsen, 2020). A three folds consumption increases means that now one out of three bottles of wine sold in France is rosé. Provence rosé wine, with its pale salmon color, is the leader in terms of turnover in France and internationally. It is also the leader on the AOC/AOP segment, i.e. the most premium segment.

Attempts to explain this fast rise of rosé wine consumption in France are, to our knowledge, few. For Delerins (2016), rosé wine consumption increase is driven by Millennial Generation while Author (2021), suggests that it is due to the emergence of new representations of rosé wine among the Millennials, out of step with the traditional codes of red wine.

To further investigate the possible causes of rosé wine popularity, an in-depth qualitative analyse of the representations of Provence rosé wine was conducted over three generations. Based on the identification of these representations, we highlight the key factors that could provide explanation to the Provence rosé wine success in France.

2. LITERATURE REVIEW

2.1. Social Representation & core nucleus theory

Social representation concept provides an understanding of social transformations taking place in a given social group (Moscovici, 1984, Abric, 1994). This concept has been widely used in the study of the evolution of wine representations in France (Author, 2011, 2015, 2017, 2021), and the dynamics of brand image (Michel & Donthu, 2014). According to (Abric, 1994), the social representation of a given object (e.g. rosé wine from Provence) is organized around a core nucleus and a peripheral system. The central core is composed of stable, long term and consensual associations: it represents the heart of the brand image. The peripheral system is composed of secondary, short term and evolving associations: it allows the brand image to evolve.

2.2. Social representation of rosé wine

In an international study covering four countries (France, USA, UK, and New Zealand), Velikova et al. (2015) showed that rosé wine has three main representations: unsophisticated, seasonal, and feminine. Specifically in France, rosé wine is perceived as convivial and easy drinking, but not profound nor sophisticated. Author (2021) show that the representations of rosé wine for Millennials are based on five dimensions: (1) product quality and refusal of sophistication, (2) color of the rosé wine, (3) freedom, (4) immediate pleasure and sharing with friends, and (5) its feminine personality.

Yet, these studies limited to millennials do not provide information on the evolution of the representations across generations.

2.3. Generations

The present study focuses on specific social group, from the generation as described by American sociologists (Howe & Strauss, 2007; Strauss & Howe, 1991). These authors define the concept of generation through four factors: two are quantitative (i.e., first one: date of birth, second one: four life cycles of 20 years each) and two are qualitative: (1) the historical factor; and (2) the specific identity factor. The three generations of interest were identified: the Z Generation (1996-2010), the Millennial (or Y Generation) (1977-1995) and Baby Boomer (1942-1967).

3. METHODOLOGY

In a qualitative analysis run in November 2021, 36 semi- structured interviews, i.e. 12 interviews for each of the three generations were conducted. Half of these interviews were performed in Paris, and half in Provence in Vidauban and Marseille. The interviews were recorded and transcribed. They lasted on average one hour. A manual thematic content analysis was conducted through the categorization of the speeches from which the merging units of sense were identified (Miles & Huberman, 1994). This study was ethically approved.

4. FINDINGS

We present below only the results for the people interviewed in Provence, i.e. 18 interviews.

Preliminary results show that the representations of Provence rosé wine for these three generations are based on 8 dimensions: (1) Improvements of product quality; (2) Clearly identified organoleptic characteristics: fresh, fruity, light; (3) The pale color is a key criterion of choice ; (4) An accessible price, even if the consumer is aware of a market premiumisation; (5) Conviviality, sharing with friends, and different consumption opportunities; (6) Its original feminine personality, and the prerogative of generation Y; (7) The attitude towards partnerships between brands and stars; (8) The attitude toward organic rose wine.

The similarities (see table 1) between the 3 generations are about quality (1) and the evocation of conviviality, sharing and simplicity (5). The main differences (see table 1) are about organoleptic characteristics (2), occasions of consumption (5), the target of Provence rose wine (women, Y generation) (6), the attitude towards Brands/stars partnerships, social networks & influencers (7), the appreciation about organic rosé wine (8). For both generations, the color is a criterion of choice, but the different criteria taken into account are different (ex: the brand).

5. THEORETICAL CONTRIBUTION AND PRACTICAL IMPLICATIONS

Our main theoretical contribution is firstly to propose a new comprehensive model of social representation of Provence rose wine through the core nucleus theory. Some representations are consensual across the three generations (they therefore belong to the core nucleus), and others are less important, different and evolving (they therefore belong to the peripheral system).

Our main practical implications is the identification of key success factors of Provence rose wine in France: (1) Continuous improvement on quality; (2) Clearly identifiable organoleptic characteristics; (3) A consumer-driven color choice; (4) Price accessibility & premiumisation; (5) A strategy of valorization by the price and the brand Provence.

Table 1: Comparison of the representations of Provence rosé wine over 3 representations

Topics/Generation Age in 2021	Baby Boom (54-79 y.o)	Y (26-44 y.o)	Z (18-25 y.o)
0/ Global representation, consumption & knowledge	Detailed Representations The historical generation	Detailed Representations The pivotal generation, which has adopted the new codes of Provence rose wine	Simplified representations The new generation Predominance of beers, spirits & cocktails
	Occasional consumption of wine, beers and spirits	Occasional consumption of wine, beers, and spirit-based cocktails	Rite of induction into the world of rosé
	Good knowledge of appellations, denominations, and partially of grape varieties	Knowledge of appellations, but not necessarily of denominations and grape varieties	No knowledge of appellations, denominations, grape varieties
1/ Improvement of the product quality	Past memory of a bad quality : “la piquette”	Quality has improved	Quality is a given. It is affordable
2/ Organoleptic characteristics and pleasure of consumption	Fresh, fruity, light	Fresh, fruity, light	A focus on “softness”, in terms of taste and color
	Pleasure : fresh, sharing, taste	Immediate and direct pleasure	No description of the tasting pleasure
3/ Color & choice criteria	Color, price, terroir	Color, price, local producers	Color, brand, design packaging, price
4/ Price and premiumisation	Affordable price Psychological price of 10 € & 15 €	Affordable price Premium price is due to marketing	Affordable price Future price increase due to global warming
5/ Conviviality, sharing with friends, consumption opportunities	Conviviality, sharing, simplicity	Idem	Idem
	Holidays, relaxation, good mood - No authenticity	Idem	A consumption centered on the apéritif
	Summer consumption	Summer consumption, with Mediterranean cuisine, and even in winter	Idem
	Consumption without ice	Consumption without ice	Consumption with ice: “pool pink”
6/ A feminine personality	A clearly feminine wine	A feminine rose wine that has become universal, multi-generational and consensual The prerogative of generation Y	Rosé wine perceived as being the prerogative of generation Y, for individuals who are more established in life
7/ Brands, partnerships with stars, and social networks	Rejection of Brands/stars partnerships	Low sensitivity to brands and partnership with stars	Strong trust in brands and brand/star partnership
	No presence on social networks, except Facebook	Presence on social networks (Facebook, Instagram, Twitter), but no subscription to rosé wines	Presence on social networks (Instagram)
	No sensitivity to wine influencers	Low sensitivity to influencers	Positive sensitivity to influencers
8/ Organic rose wine	A critical view of organic wine	A positive appreciation of organic rose wine with limited willingness to pay	A positive appreciation of organic rose wine, event without having tested it

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