

How do retail distribution and market share measures relate in the wine category? A conceptual outline and speculation based on current knowledge

Martin Hirche¹

martin.hirche@unisa.edu.au

Larry Lockshin¹

larry.lockshin@unisa.edu.au

Luke Greenacre¹

luke.greenacre@unisa.edu.au

Magdalena Nenycz-Thiel¹

magdalena.nenycz-thiel@unisa.edu.au

¹ *Ehrenberg-Bass Institute for Marketing Science, University of South Australia, Australia*

Abstract:

Purpose - This paper attempts to draw a conceptual outline of how the market share – distribution relationship may be characterised in the wine category. The aim of this paper is to explain the potential contribution of future research in this area.

Design/Methodology/Approach - Current knowledge of the market share – distribution relationship is presented and its relevance regarding the wine category discussed. The paper establishes a range of speculative ideas and assumptions based on relevant concepts and market as well as category characteristics.

Expected Findings - We expect a typical convex pattern to hold across markets. It is likely that the convex curve in the wine category is more pronounced compared to less dense and lower revenue categories {Wilbur, 2014 #13}. The occurrence of outlier brands, which do not fit the typical pattern is very likely. These could potentially be private label or iconic low-quantity brands, for example. Factors possibly associated with the relationship are regional/national circumstances, market and retail structure, retailer and store characteristics such as store performance, or the density of brands/SKUs in the category.

Keywords - Distribution, market share, retail, wine, physical availability

INTRODUCTION

The distribution of products is one of the key drivers for sales growth {Ataman, 2008 #12;Ataman, 2010 #23;Kucuk, 2008 #33;Sharp, 2010 #22;Srinivasan, 2010 #25}. Therefore, the relationship between market share and distribution continues to be of interest to marketers and academics alike. Typically, this relationship is characterised by an increasing and convex pattern {Borin, 1991 #38;Farris, 1989 #15;Kruger, 2006 #14;Verbeke, 1994 #29;Wilbur, 2014 #13}. See (Figure 3) for an illustration of how brands or stock-keeping-units (SKUs) scatter according to the typical relationship pattern.

Even though this convex relationship pattern holds across the majority of product categories, there are some categories where this pattern does not apply, for example, in small and sometimes sub-categories of larger categories {Kruger, 2006 #14}. Furthermore, the degree of “convexity” (how steep the pattern evolves) differs across product categories {Kruger, 2006 #14;Wilbur, 2014 #13}.

Amongst others, wine represents a product category being widely available and consumed in its major markets and commonly comprising a plethora of different brands and Stock-Keeping Units (SKUs). Even on a brand-level, SKUs may differ based on grape varieties, vintage, their provenance, or style among others. The spectrum ranges from very small boutique brands with limited availability to big international high-volume brands.

This paper attempts to draw a conceptual outline of how the market share – distribution relationship may be characterised in the wine category across major wine markets.

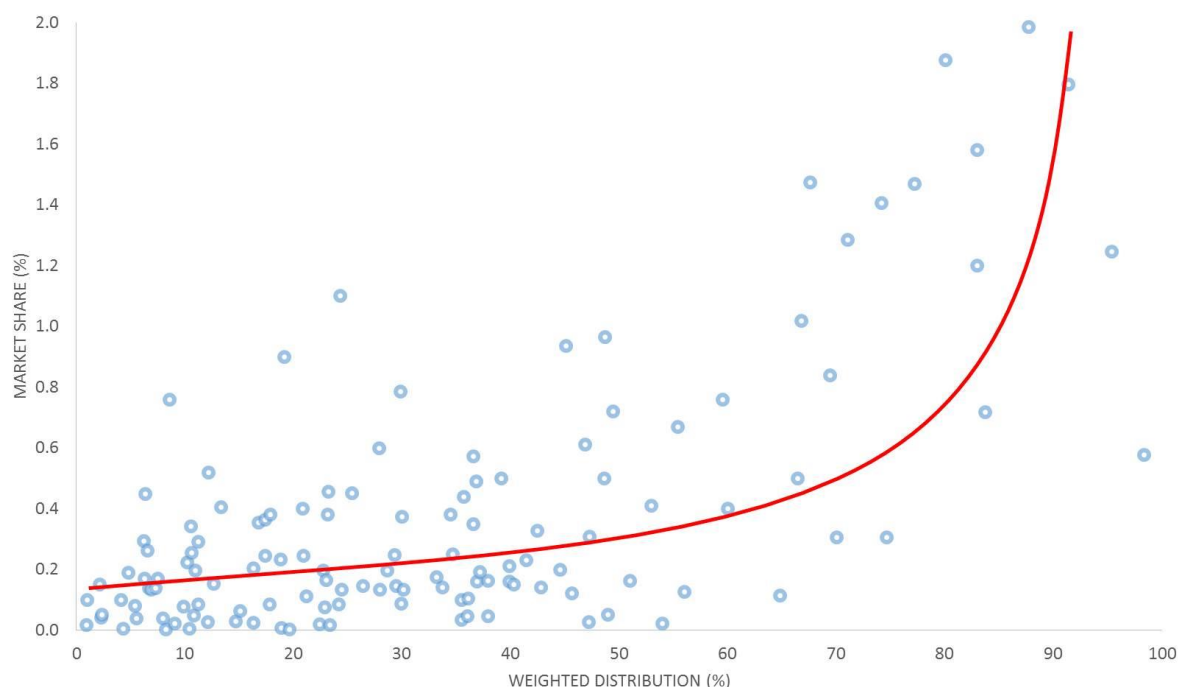


Figure 3 Scatter Plot of the Typical Convex Market Share - Distribution Relationship (Source: author's own illustration)

2. DEFINITIONS OF METRICS

One of the most important and most commonly used brand-size related brand performance measures (BPMs) in marketing is market share {Ehrenberg, 2004 #20}. Market share can be expressed as either volume or value-based percentage and is commonly calculated as

$$\text{Market Share (\%)} = \frac{\text{Total purchases of the brand}}{\text{Total purchases of the category}}$$

Distribution can be measured in different ways. The most common distribution metrics are:

Physical Distribution: % of outlets carrying the brand

ACV (All Commodities Volume): % of total commodity volume sold by stores that stock the brand

PCV (Product Category Volume): % of total category volume sold by stores that stock the brand

A brand's weighted distribution of 80% PCV means that the stores stocking the brand account for 80% of the Product Category Volume (sales) in the sample of stores compared to All Commodities Volume (ACV) which is the equivalent measure accounting for the total store sales of all product categories {Farris, 1989 #15}. Therefore in the case of specialty stores the measures of ACV and PCV would most likely be almost identical {Farris, 1989 #15}.

3. LITERATURE REVIEW

3.1. The market share – distribution relationship

The empirical relation between market share and distribution has been investigated as early as the 1960's. {Nuttal, 1965 #37@@author-year} publication on the confectionary category in the UK market is considered to be one of the first on this relationship. In the following decades the research in this area has been extended to multiple markets and product categories. For example, those studies looked at tortilla chips and instant coffee in the USA {Farris, 1989 #15}, shampoo in Japan {Borin, 1991 #38} or detergents in Holland {Verbeke, 1994 #29} amongst others {Ataman, 2010 #23; Kruger, 2006 #14; Reibstein, 1995 #28}.

Over the past years, various methodological approaches to analyse the relationship have been applied, using cross-sectional time-aggregated data {Borin, 1991 #38; Wilbur, 2014 #13} or cross-sectional time-series data {Bronnenberg, 2000 #41; Bruno, 2008 #42; Farris, 1989 #15; Kruger, 2006 #14; Reibstein, 1995 #28; Verbeke, 1994 #29}.

{Kruger, 2006 #14@@author-year} found the convex relationship in 95% of the time across 143,356 brands in 263 product categories. Importantly they observed that the 5% of the categories where the model does not fit are small and sometimes sub-categories of larger categories. Similarly, {Wilbur, 2014 #13@@author-year} identified an increasing and convex relationship in 86% of the 37 CPG categories on SKU-level.

As can be seen in Figure 3, this specific relationship pattern entails a Double Jeopardy phenomenon where high-share brands tend to sell more “per point” of retail distribution than small-share brands in several categories {Farris, 1989 #15; Kucuk, 2008 #33; Reibstein, 1995 #28}.

In regard to future research needs in this field, {Farris, 2004 #30@@author-year} asked for a “[...] broader, more systematic comparison of distribution share relationships in different product categories [...]”. Furthermore, {Wilbur, 2014 #13@@author-year} expressed the need to continue studying the causes and consequences of best versus worst performing brands and SKUs. Hence, a more systematic approach to investigate the share-distribution relationship and associated category, brand and SKU characteristics, is needed.

3.2. The nature of retail distribution of wine

The retailing industry is one of the most important sales channels for wine brands. Store-based retailing remains to be the most significant contributor to overall retail sales in the major wine markets. In 2014 of the total wine sales, store-based retailing of wine accounted for 81.5% in the USA, 73.4% in Germany, 66.5% in China, 65.6% in France, or 60.3% in Italy {Euromonitor, 2015 #75}. Despite the strong increase of non-store based retailing (i.e. e-commerce, mobile) in the past years, traditional “brick-and-mortar” stores are important and ever growing in the sector, partly adopting new technologies {Euromonitor, 2015 #18}. Therefore, making products physically available in the market represents a necessary and continuing challenge.

To date researchers rather broadly discussed the reasons of the convex pattern, for example, as potentially being explained by the general structure of retail distribution with few large stores carrying a wider category assortment and many small stores with limited shelf capacity mostly carrying the major (high market share) brands {Farris, 1989 #15}. Wine markets have their distinct retail structure and the share of supermarkets, discounters or specialised retail stores varies. Structural differences across markets may have implications on how the market share – distribution pattern evolves in the wine category. In this regard, the conceptual assumptions are presented in the following.

4. CONCEPTUAL ASSUMPTIONS

Given the typically high breadth and depth of brands and SKUs in the category of wine, one would expect a confirmation of the typical convex pattern across markets. {Kruger, 2006 #14@@author-year} illustrate the relationship pattern for wine in the US market. In this market the pattern can be identified as being typically increasing and convex. It shows that the slope is more pronounced compared to other beverages categories such as spirits/liquor, premixed cocktails/coolers or cocktail mixes. This indicates that wine brands need to reach relatively higher distribution levels in order to grow, compared to other mentioned categories. {Wilbur, 2014 #13@@author-year} found that the degree of convexity can be higher in dense (competitive) and high revenue categories.

But past research also showed that there are exceptions in the form of outlier brands, which are able to gain above average market shares despite their relatively low distribution. The occurrence of such brands that do not fit the typical pattern can be expected in wine. Private label brands or scarce iconic brands (e.g. from Champagne) may appear to significantly deviate from the norm. The distribution of private label brands is naturally restricted due to their exclusivity to respective retailers and their stores. Despite their limited distribution these brands may still perform above average, realising relatively high market shares. In relation to the second example, the scarce iconic brands, similar relationship characteristics may apply. A somewhat special condition of the product wine is the natural variation of produced volume over time. Wine producing countries usually have a disproportionately high number of low and relatively few high volume producers. In Germany, for example, the estimated average size of a wine producing business (total of approx. 10,000 wine producers) is just above 6 ha in 2009 {MWVLW, 2010 #76}. This indicates how many different brands originate from very small producers. Furthermore, the existence of geographically delimited wine growing regions additionally restricts the production (the Champagne region in France being one of many examples). The volume produced may also be restricted by (regional) legal requirements in order to be allowed to use specific quality declarations. {Bhattacharya, 1996 #34@@author-year} note that the market share – distribution relationship may be relative to regional/national circumstances where small brands may have lower distribution levels overall but perform relatively better on a regional level (in their regions). A regional market leader brand may seem to be underrepresented in a national market context, having an overall low distribution but relatively high market share. These conditions may explain the existence of such outlier brands that deviate from the typical market-share – distribution relationship pattern.

Besides the market and retail structure in wine markets, also retailer and store characteristics as well as brand features may help to explain the relationship. Retail store size seems to affect the stocking decision-making due to differing shelf space and budget {Farris, 1989 #15;Kucuk, 2008 #33}. Small stores having less shelf space may only have a small

assortment of SKUs and change this assortment more frequently, likely in response to consumer preference over time {Shah, 2015 #50}.

Another important determinant of effective distribution outcomes is retail store performance. It can be argued that store performance plays a major role when aiming to increasing sales by at least maintaining distribution levels. Store performance may be affected by different market and store characteristics {Campo, 2004 #57; Campo, 2000 #56; Hoch, 1995 #58; Montgomery, 1997 #59}. Factors such as location, assortment and promotion can be important determinants of retail sales generation and performance improvements {Wieringa, 2015 #60}. Z

RESEARCH APPROACH

How the retail distribution and market share measures relate in the wine category will be tested using secondary retail scanner data from major market research data providers. Competitive repeat-purchase markets to be investigated include USA, UK, Germany and France. For comparison purposes it is aimed to include 10 to 20 CPG product categories, including wine. Retail scanner data can potentially be linked to household panel data, which would result in a wider scope of possible determinants of market performance. Weekly scanner data will be aggregated and product categories filtered by appropriate product/brand/SKU hierarchies. Adequate measures of distribution (see 1. above) need to be identified and evaluated before establishing any analytical framework. In order to properly estimate the effects of structural distribution antecedents on market performance outcomes, the market needs to be stationary. Using co-integration techniques {Franses, 1998 #67} and/or persistence models {Dekimpe, 1999 #65} to overcome non-stationary characteristics may be advisable.

The identification of mentioned outlier brands will play a role in this study. One possible way of identifying spatial outliers that do not follow the average market share – distribution line is a Cluster-Outlier Analysis using Anselin Local Moran's I {Anselin, 2013 #69}. This analysis could be exploratory in nature and runs stepwise (including distances of brand points and their respective value for each independent variable at a time). This would result in descriptive characteristics and sales and distribution related performance measures of brands and SKUs in their respective category. Based on these preliminary findings and its indications the objective could be to identify underlying antecedents (drivers) of retail distribution having an effect on market share. On the other hand, brands/SKUs that are part of the average relationship line need to be identified likewise. Standard Deviation (SD) may be helpful in this regard. Subjects that only deviate within a critical SD threshold may be considered to fit the line.

5. CONTRIBUTION

Understanding the market share – distribution relationship enables marketers not just to better understand the distribution related dynamics in the market, but also to better forecast volumes and market shares, for example, of newly introduced products by estimating respective distribution levels {Farris, 2004 #30}. According to a brand's position on the share-distribution map, further strategic decisions as to whether investing in distribution and/or the creation of demand through other marketing activities can be made {Farris, 2004 #30}. {Farris, 2004 #30@@author-year} correctly states: “The importance of distribution in determining market share and market structure is probably most apparent to new and small brands struggling for shelf position.” Such highly competitive conditions for small brands are exemplary for the wine category. Understanding the nature of wine brands and SKUs in relation to their market and distribution ‘position’ will ultimately be a foundation for better strategic decision-making in a retail distribution context. The allocation of resources toward the distribution and/or advertising/promotion of a wine can be targeted more effectively.

6. REFERENCES

- Anselin, L 2013, *Spatial econometrics: methods and models*, Springer Science & Business Media,
- Ataman, MB, Mela, CF & Heerde, HJv 2008, 'Building Brands', *Marketing Science*, vol. 27, no. 6, pp. 1036-1054.
- Ataman, MB, Van Heerde, HJ & Mela, CF 2010, 'The Long-Term Effect of Marketing Strategy on Brand Sales', *Journal of Marketing Research (JMR)*, vol. 47, no. 5, pp. 866-882.
- Bhattacharya, CB, Fader, PS, Lodish, LM & DeSarbo, WS 1996, 'The Relationship Between the Marketing and Share of Category Requirements', *Marketing Letters*, vol. 7, no. 1, pp. 5-18.
- Borin, N, Van Vranken, C & Farris, PW 1991, 'Research Note: A Pilot Test of Discrimination in the Japanese Distribution System', *Journal of Retailing*, vol. 67, no. 1, //Spring91
Spring91, p. 93.
- Bronnenberg, BJ, Mahajan, V & Vanhoner, WR 2000, 'The Emergence of Market Structure in New Repeat-Purchase Categories: The Interplay of Market Share and Retailer Distribution', *Journal of Marketing Research (JMR)*, vol. 37, no. 1, pp. 16-31.
- Bruno, HA & Vilcassim, NJ 2008, 'Structural Demand Estimation with Varying Product Availability', *Marketing Science*, vol. 27, no. 6, pp. 1126-1131.
- Campo, K, Gijsbrechts, E, Goossens, T & Verhelsen, A 2000, 'The impact of location factors on the attractiveness and optimal space shares of product categories', *International Journal of Research in Marketing*, vol. 17, no. 4, 12//, pp. 255-279.

Campo, K & Gijsbrechts, E 2004, 'Should retailers adjust their micro-marketing strategies to type of outlet? An application to location-based store space allocation in limited and full-service grocery stores', *Journal of Retailing and Consumer Services*, vol. 11, no. 6, 11//, pp. 369-383.

Dekimpe, MG & Hanssens, DM 1999, 'Sustained Spending and Persistent Response: A New Look at Long-Term Marketing Profitability', *Journal of Marketing Research (JMR)*, vol. 36, no. 4, pp. 397-412.

Ehrenberg, ASC, Uncles, MD & Goodhardt, GJ 2004, 'Understanding brand performance measures: using Dirichlet benchmarks', *Journal of Business Research*, vol. 57, no. 12, 12//, pp. 1307-1325.

Euromonitor 2015a, *Statistics: Wine Markets*, Euromonitor International, 20/08/2015.

Euromonitor 2015b, *Retailing in the US*, June 2015, Euromonitor International, 14/06/2015.

Farris, P, Olver, J & Kluyver, Cd 1989, 'The Relationship between Distribution and Market Share', *Marketing Science*, vol. 8, no. 2, pp. 107-128.

Farris, P 2004, 'Using Steiner s dual-stage model to develop better measures of retail distribution', *Antitrust Bulletin*, vol. 49, no. 4, pp. 941-954.

Franses, PH, Kloek, T & Lucas, A 1998, 'Outlier robust analysis of long-run marketing effects for weekly scanning data', *Journal of Econometrics*, vol. 89, no. 1-2, 11/26/, pp. 293-315.

Hoch, SJ, Kim, B-d, Montgomery, AL & Rossi, PE 1995, 'Determinants of Store-Level Price Elasticity', *Journal of Marketing Research (JMR)*, vol. 32, no. 1, pp. 17-29.

Kruger, MW & Harper, B 2006, *Market Share and Product Distribution: Re-tested and Extended. (White Paper)*, Information Resources, Inc., Chicago, viewed 08/07/2015, <<http://dx.doi.org/10.2139/ssrn.2157528>>.

Kucuk, SU 2008, 'Can distribution explain double jeopardy patterns?', *International Journal of Retail & Distribution Management*, vol. 36, no. 5, pp. 409-425.

Montgomery, AL 1997, 'Creating micro-marketing pricing strategies using supermarket scanner data', *Marketing Science*, vol. 16, no. 4, p. 315.

MWVLW 2010, *Weinwirtschaftsbericht Rheinland-Pfalz, Deutschland und die Welt*, Ministerium fuer Wirtschaft, Verkehr, Landwirtschaft und Weinbau Rheinland-Pfalz, Mainz.

Nuttal, C 1965, 'The relationship between sales and distribution of certain confectionery lines', *Commentary*, vol. 7, no. 4, pp. 272-285.

Reibstein, DJ & Farris, PW 1995, 'Market Share and Distribution: a Generalization, a Speculation, and some Implications', *Marketing Science*, vol. 14, no. 3, p. G190.

Shah, D, Kumar, V & Yl, Z 2015, 'Diagnosing Brand Performance: Accounting for the Dynamic Impact of Product Availability with Aggregate Data', *Journal of Marketing Research (JMR)*, vol. 52, no. 2, pp. 147-165.

Sharp, BM 2010, *How brands grow: what marketers don't know*, Oxford University Press, South Melbourne.

Srinivasan, S, Vanhuele, M & Pauwels, K 2010, 'Mind-Set Metrics in Market Response Models: An Integrative Approach', *Journal of Marketing Research (JMR)*, vol. 47, no. 4, pp. 672-684.

Verbeke, W, Clement, F & Farris, P 1994, 'Product availability and market share in an oligopolistic market: the Dutch detergent market', *International Review of Retail, Distribution and Consumer Research*, vol. 4, no. 3, pp. 277-296.

Wieringa, JE, Reber, KC & Leeftang, P 2015, 'Improving pharmacy store performance: the merits of over-the-counter drugs', *European Journal of Marketing*, vol. 49, no. 7/8, pp. 1276-1299.

Wilbur, KC & Farris, PW 2014, 'Distribution and Market Share', *Journal of Retailing*, vol. 90, no. 2, pp. 154-167.