

Consumer Purchasing Behaviour for Wine: What We Know and Where We are Going

Prof Larry Lockshin, Wine Marketing Research Group, University of South Australia
John Hall, Victoria University, Australia

Introduction

The area of Wine Marketing has not been recognised as a formal area within marketing or business. However, the number of practitioners world-wide and now the number of academics working in this area has grown. As little as 10 years ago, the major journal in the area, *The International Journal of Wine Marketing*, was the only outlet for publishing in this area. Programs, like the diploma of Wine Marketing at the University of Adelaide (formerly Roseworthy Agricultural College), were limited in number and scope. Most of these programs used standard marketing and business textbooks, with added assignments for the wine industry. This was mainly due to the dearth of empirical research in wine marketing.

In a short period of time this situation has changed dramatically. There are now university programs in various aspects of wine marketing and wine business in most wine producing countries and a few of the major wine consuming countries, like the UK. Many of these programs are offered at postgraduate as well as undergraduate level and are beginning to utilise the growing body of research on this sector.

What do we know empirically about wine marketing? This question is much too broad to answer within the confines of one paper. Wine marketing includes many sub-areas of research. Traditionally, we would speak of the 4 Ps of marketing, product, pricing, promotion, and placement and their concomitant areas in wine marketing, such as branding, new product development, pricing, public relations, managing the sales force, and distribution. Beyond this, the area wine marketing should include specialty topics, such as consumer behaviour for wine, wine tourism and cellar door (direct sales), supply chain management from the vineyard and supplier to the end user, labelling and packaging, wine events, medals and show awards, promotional activities, exporting including market choice and channel within market choice, selecting and managing agents, protecting intellectual property (names and logos), and world regulation of wine and alcohol. Each of these areas has seen

some research in the past decade and each could be the subject of a review such as this one.

The area of wine choice behaviour was chosen for its critical influence in many of the other areas cited enough. If we can understand how consumers choose wine, then we have a much better framework to decide pricing, packaging, distribution, advertising, and merchandising strategies. These strategies then set the agenda for further development in the related areas of supply chain management, sales management, and even export management. First, a brief overview of the differences between wine marketing and FMCG (fast moving consumer goods) will be provided. This paper will then review the key, but limited research in wine choice behaviour. The review will be summarised and the key areas for future research outlined.

Why does wine need a special review, rather than rely on existing research in consumer choice behaviour? Wine is sold in grocery stores in most major consuming countries. In fact data from Euromonitor (2001) that grocery and discount store channels account for over 50% of wine sold in Italy, and over 70% of wine sold in the UK, the US, Germany and France. In some countries, like Australia, wine is not legally sold in supermarkets, but over 50% of the specialist retailers are owned by the major supermarket chains. These facts should indicate that wine is a fast moving consumer good, or packaged good (in the US). But, where most supermarket categories have 10 or so brands, wine typically has over 700. In some supermarkets well over 1000 different wines are stocked. Also, consumers purchase brands of products, and the brand names are the key unit of decision (Ehrenberg 1988). Although more and more wines, especially those from the New World, carry brand names, there are many different cues on the package that influence purchase, eg., the region, sub-region and country of origin, the vintage date, the grape variety or blend, the producer or negotiant (blender of the wines), style (eg, bottle fermented, late harvest), the wine maker, and the specific vineyard. The result is that consumer choice for wine is more complex than the choice for many other products. It might be argued that automobiles are one of the few product categories that rival the complexity of the wine category, but cars are not purchased so frequently.

Literature Review

Previous studies have identified numerous factors that have been found to have an impact on the wine selection process (Batt and Dean 2000; Hall et al 2002; Jenster and Jenster 1993; Koewn and Casey 1995). This complexity has been further emphasised by Howard and Stonier (2002), who stress that there is more to wine than simple tangible qualities.

Intrinsic and Extrinsic Cues

When a product has a high proportion of attributes that can only be assessed during consumption (experience attributes) as with wine (Chaney 2000), then the ability of consumers to assess quality prior to purchase is severely impaired, and consumers will fall back on extrinsic cues in the assessment of quality (Speed 1998). The attributes that signal quality to consumers can be divided into intrinsic and extrinsic (Szybillo and Jacoby 1974; Olson 1977; Dodds and Monroe 1985; Holbrook and Corfman 1985; Monroe and Krishnan 1985; Zeithaml 1988), while Gabbott (1991) identifies that wine consumers utilise both intrinsic and extrinsic cues to aid in the choice process. Extrinsic cues are lower level cues that can be changed without changing the product (e.g. price, packaging, self location, brand name), while intrinsic cues are higher-level cues directly related to the product. Intrinsic cues, perceptions of the product itself, are subject to perceptual bias. Wine quality is based on perceptions, such as price, recommendations of friends or experts, or the label.

Lockshin and Rhodus (1993), found that quality perceptions of wine were based on intrinsic cues, such as grape variety, alcohol content and wine style, which relate to the product itself and the processing method as well as on extrinsic cues, including price, packaging, labelling and brand name, which can be altered without actually changing the product. Price is an important cue for quality when few other cues are available (Speed 1998), when the product cannot be evaluated, or when the perceived risk of making a wrong choice is high (Cox and Rich 1967; Dodds and Monroe 1985; Monroe and Krishnan 1985; Zeithaml 1988; Mitchell and Greatorex, 1988; 1989). While it is presumed that consumers would conduct a search for information prior to their purchase, research suggests that consumers use only a small amount of the information available to make a decision, (Foxall 1983, Olshavshy and Grambois 1979, Lockshin 2000). Chaney (2000), found that there is a very little external search

effort undertaken prior to entering the store to purchase wine, with the two highest ranked information sources in her study, being point of sale material and labels, but these were found to rate at only the somewhat important level. Lockshin (2000) highlights the fact that brand name acts a surrogate for a number of attributes including quality and acts as a short cut, in dealing with risk and providing product cues.

Taste

When asked why they chose a particular wine, Koewn and Casey (1995) found that the taste of the wine was a dominating factor for wine consumers. Thompson and Vourvachis (1995) found that taste was the most highly correlated attribute relating to wine choice and noted that this was to be expected as it is frequently found to be the key attitudinal factor in studies of wine choice. The taste of the wine represents one of the major perceived risks presented by Mitchell and Greatorex (1988), they found that the taste of the wine was the risk that concerned consumers most.

Brand

As noted above, brand is another extrinsic attribute used in wine choice. Brands are the sum total of all the images that people have in their heads about a particular company; brands represent promises made regarding what we can be expected from a product, service, or company (Gordon 2002).

Generally, brands are becoming globalised, but the wine industry provides an interesting example of global branding in the context of a plethora of brand names. In Australia alone, over 1,000 wine companies produce over 16,000 wine brands causing consumers great difficulty in their purchase decision. Wine companies have been using branding as a means of differentiating their product (Rasmussen and Lockshin, 1999). Brand is used to identify wine more so in Australia than in Europe where wines are identified by region or vineyard (Lockshin 2001b). Branding and the wine industry have faced challenges in Europe (Marsh 2001).

Gluckman (1990) postulates that consumers do not have a clear understanding of branding in the wine market. Specifically, consumers tend to infer the same status to generic types - grape and region - as they do to specific brands. Consumers are

shown to develop a small brand repertoire, which may well be a collection of true brands and generic types.

Mitchell and Greated (1989) highlight the positive correlation between risk and access to information. They state that the participants in the experiment with less information cannot differentiate between many wines. Therefore the taste of the wine is not as important as the taste of the wine when associated with brand name and image.

Judica and Perkins (1995) discuss how champagne users link brand name to a sophisticated image. With this in mind many wine producers use 'society gatherings' frequented by the affluent segment of society to build up the prestigious image of their brand (O'Neill, 2000).

The introduction of geographical indicators has spurred on the use of regional branding as a branding tool in Australia (Lockshin 2001). Beverland, (1999, 2000) suggests that Australian wineries are using wine tourism, to provide opportunities to build brand loyalty at the cellar door. While Madonna (1999) gives an American perspective identifying that more than half the wineries in California's Napa Valley have identified tourism as a key marketing activity. Wine tourism is seen as a brand differentiator. It enables wineries to meet their customers face-to-face and gives them an opportunity to raise the profile of their products in the customer's mind. Customers may then develop a long-term connection with a product that they have sampled at the place of its origin.

Price

Accumulated theoretical and empirical evidence suggests that wine prices depend on quality, reputation and objective characteristics (Oczkowski 2001). Koehn and Casey (1995) found that pricing was extremely important to all respondents, in a study of wine purchasing influences. Similarly, in a study conducted by Jenster and Jenster (1993) price was an overriding criterion in making the purchase decision among European wine consumers. Generally, price is an important cue to quality when there are few other cues available, when the product cannot be evaluated before purchase, and when there is some degree of risk of making a wrong choice (Cox and

Rich 1967, Dodds & Monroe 1985, Monroe and Krishnan 1985, Zeithaml 1988). As such price is often a primary cue, which is utilised to indicate wine quality (Szybillo and Jacoby 1974; Olson 1977). Indeed, Johnson et al (1991) used price combined as a criteria in a cluster analysis segmentation of Australian wine consumers. In the purchase of wine, price is also used to overcome perceived risk (Spawton, 1991).

It has been found that the reputation of the producer and objective wine trait measures such as the wine's year of vintage, region from which the grapes were sourced and the grape variety are significantly related to price (Combris et al 1997, 2000, Landon and Smith 1998, Oczkowski 2001). It was also found that when wine guide overall sensory quality scores are employed with objective characteristic traits, a significant relationship with price occurs. This was also identified by Golan and Shalit (1993); Oczkowski (1994), Landon and Smith (1997), Schamel et al (1998), Wade (1999), Angulo et al (2000), Combris et al (2000) and, Oczkowski (2001).

Origin

Batt et al (2000) found that the origin of the wine was the third most important variable influencing consumers' decision to purchase wine in Australia. It was particularly important for those who purchased wine by variety and more so for males than females. In a Spanish study it was found that the region of production and the vintage year are the main determinants of market price (Angulo et al 2000). Skuras and Vakrou (2002) and Wade (1999) also suggest that there is a correlation between the region and the price of wine. This finding is supported from a broader European context where research by Skuras and Vakrou (2002), Dean (2002), Koewn and Casey (1995) and Gluckman (1990) suggest that country of origin is a primary and implicit consideration of consumers in their decision to purchase wine, as did Tustin (2001) from an Australian perspective.

Packaging

In wine marketing, packaging and labels assume undeniable influence with packaging forming an integral part of any wine's promotion and consumption (Thomas 2000, Charters et al 2000). Labels provide the key recognition factor through their shape, colour, and position as well as the information offered (Jennings and Wood 1994). Wine labels help to establish a winery's image and define brands (Fowler 2000).

Wine packaging includes the front label, back label, bottle and bottle shape, cask, package and awards.

Combris et al. (1997), note that these characteristics are significant in influencing the price and purchase of the wine. Gluckman (1986) identified that consumers perceive the wine labels as one of their primary sources of information, both for specific choices and as a means of increasing general product knowledge.

At the time of purchase the label delivers key information to the consumers relating to the benefits on offer (Jennings and Wood 1994). Batt et al (1998, 2000), found labelling and packaging to be an influential factor in wine consumption choice. In particular they noted that modern innovative and distinctive labels were more attractive to the younger market in contrast to the older market, who preferred more traditional styles of packaging. The label has been identified as an under-utilised area for information provision. Shaw, Keeghan and Hall's (1999) findings suggest that not enough attention is made on back labels to the taste of the wine and how it is made.

Lockshin (2001a) highlights the fact that Australia alone has over 16,000 different labels produced by over 1100 wineries and that Europe has 100,000's of different labels. Charters et al (2000) found that the majority of wine purchasers read back labels in making their purchase decisions, identifying that the most useful aspects of the label were the simple descriptions of the tastes and smells of the wines. Shaw et al (1999) identifies that the most common back labels refer to the winemaker, company, and the type of food or occasion that might suit the wine as well as attributes of the wine such as the bouquet or flavour. Orth and Kruska (2001) and Batt (1998), noted the importance and influence of wines receiving awards on consumer preferences

Quality

Quality is a characteristic of the wine that is both difficult to define and to communicate. The level of quality required may vary upon a variety of circumstances including the consumption occasion (Quester and Smart 1998). The quality of wine however is difficult to evaluate objectively. The quality of wine is generally

recognised to depend upon subjective sensory evaluations and therefore, cannot be easily or precisely measured, (Oczkowski 2001). Groves et al (2000) suggest that wine quality is composed of hedonistic and aesthetic components of wine consumption. These are the felt experiences resulting from the pleasure of drinking wine.

However many of these measures of quality are intrinsic and difficult to assess before consumption. Landon and Smith (1998) suggest that given the incomplete information on quality, consumers rely heavily on both individual firm-reputation based on the past quality of the firm's output and collective or group reputation indicators and characteristics that allow consumers to segment firms into groups with differing average qualities to predict current product quality. To help deal with that uncertainty, quality-conscious consumers process various perceived signals of quality, mainly of an extrinsic nature, such as price, producer, brand, vintage, region, awards, ratings and recommendations (Lockshin et al 2000). Also one of the unique aspects of wine production and consumption is the variation in product, where factors such as climate, weather, winemaker, grape type, composition of the soil, have a great effect on the final quality of the product (Johnson 1989). As a result, 'quality' becomes more subjective and variable, but nevertheless, it is an important and essential factor to study in relation to wine choice.

Situation

The key finding from Hall and Lockshin (2000) was that the above factors themselves are related to the situation where the consumer intends to drink the wine. These 'attributes' are related in consumer's minds to the 'consequences' they produce (Guttman 1982). For example high price was important, when a consumer was purchasing wine in order to impress a business associate or to celebrate a special anniversary. Low price was important, for example, when the consequence was to relax at home by oneself, or for entertaining at an informal party or BBQ. Different consumption situations amplified or muted the importance of different wine attributes.

Perceived Risk

Beyond the attributes of the wine and the situation, different consumers choose wine differently. Perceived risk is also a factor, which affects consumers' decision making

when they are considering a product purchase. Risks include, social, financial, functional and physical aspects of a product (Mitchell and Greated 1989). Many wine purchases involve risk-aversion (eg. Spawton, 1991; Mitchell and Greated, 1989; Gluckman, 1990). Examples of these risks include functional risk, such as the taste of the wine; social risks by perhaps being embarrassed in front of family and friends; financial risk in the cost of the wine and physical risk in terms of risking a pending hangover the following morning. With the number of brands available, and between-vintage variation, it means that consumers are confronted with an enormous amount of changing information which impacts on perceived risk (Speed 1998).

Gluckman (1990) contends that the act of purchasing wines is clouded with insecurity. Mitchell and Greated (1989) and Spawton (1991) discuss risk-reduction strategies in the purchase of wines. These include, selecting a known brand, recommendations, advice from retail assistants, undertaking wine appreciation education, pricing, packaging and labelling, getting reassurance through trials such as tastings and samples. Consumers can also reduce the risk of aversive consequences by considering fewer options (Foxall 1983). Spawton (1991; 1999) suggests that with the exception of a few connoisseurs at the high end of the market, most wine purchasers are highly risk-sensitive and their subsequent purchases are governed by risk-reduction strategies.

Involvement

Involvement has been used in a variety of marketing studies since Sherif and Cantril (1947) first presented the concept. Involvement is a motivational and goal-directed emotional state that determines the personal relevance of a purchase decision to a buyer (Rothschild 1984). Involvement is thought to exert a considerable influence over consumers' decision processes (Laurent and Kapferer 1985; Quester and Smart 1998). Researchers have typically analysed the influence of product involvement on consumers' attitudes, brand preferences, and perceptions (Brisoux and Cheron; 1990; Celsi and Olson; 1988; Quester and Smart 1998). Involvement has been conceptualised as the interest, enthusiasm, and excitement that consumers manifest towards a product category (Bloch 1986; Goldsmith, et al 1998). The model proposed by Lockshin et al. (1997) suggested three dimensions of involvement: product involvement, brand involvement and purchase involvement.

Wine purchase behaviour is a complicated issue in that the level of knowledge is a significant factor dictating the processes undergone by the consumers (Gluckman 1990). Involvement has been linked to wine purchase (Lockshin et al 1997; Quester and Smart 1998), where high and low involvement wine buyers have been shown to behave differently (Lockshin and Spawton 2001) on factors such as price, region and grape variety, (Zaichkowsky 1988; Quester and Smart 1998), consumption situation, (Quester and Smart 1998), medals and ratings (Lockshin 2001) and quantity consumed (Goldsmith et al 1998). Higher involved consumers utilise more information and are interested in learning more, while low involvement consumers tend to simplify their choices and use risk reduction strategies.

Purchase Behaviour

The distinguishing characteristic of the previous studies is that they have used surveys and qualitative techniques to elicit the important factors in wine choice. The fact that so many authors agree on the factors gives credence to their use by consumers. However, Ehrenberg (1988) makes a strong case for analysing actual purchase behaviour rather than attitudes. Attitudes have only a modest correlation with actual behaviour. Ehrenberg and his associates have modelled consumer choice behaviour for many product categories and shown that most consumers choose brands within a repertoire, with the probability of choice related to the market share of the brand. Few consumers purchase the same brand exclusively over a period of time. Most choose brands in relation to their market share, with larger brands being chosen more often (frequency) and by more consumers (penetration). This is the well known 'double jeopardy effect' (1988).

There have been no major studies analysing actual purchase behaviour for wine. The main reason being that the data (large panel data sets) are not readily available for wine. Thus, we cannot really speak of how consumers purchase wine. We can mainly speak about what influences their purchases.

The problem faced by researchers an industry is the interaction of the various attributes and consumer characteristics, when the consumer actually reaches out to the shelf. We know that all those factors are important, but how do they interact?

Modelling Purchase Behaviour

There are two techniques for trying to understand how various factors interact in wine choice. As mentioned above, using Dirchlet models as per Ehrenberg (1988) allows researchers to measure the purchasing patterns for brands. An improvement on this technique would code some of the above attributes, such as price, region, even grape variety as if they were brands, and consumer repurchase rates (penetration and frequency) could then be calculated. Jarvis, Rungie, and Lockshin (2003a) coded price points, regions (as well known or less known) and brands (as well known and less known) and found that repurchase was greatest for price point, then for region, and finally for brands (Table 1). The S-statistic shows the propensity to switch, so lower values indicate higher loyalty. The final row shows 'attribute bundles', prices, regions, and brands grouped together as the 12 possible combinations of the other rows. This is the first attempt to model attributes as brands using these techniques. The weakness is that respondent characteristics and the purchase or consumption situation are not part of the analysis, unless this data is part of the panel. To date, no panel data sets with these characteristics are available for analysis.

Table 1: S-Statistics for Prices, Regions, And Brands

Attribute Categories	S statistic
\$11.99 vs. \$16.99 vs. \$21.99 (3 brand categories)	2.40
Well established region vs. newly established region (2 brands)	2.84
Well known brand vs. less well known brand (2 brands)	3.20
All brands (12 brand categories)	4.27

Another technique, which can reveal the interactions of the attributes as well as the consumer's characteristics and the purchase situation are discrete choice experiments, (Louviere and Woodworth 1983), sometimes called Choice Based Conjoint. Tustin and Lockshin (2001) used a simple experiment with two brands, two regions, and three prices. They measured product involvement in wine and made the choice situation 'purchasing a bottle of Shiraz to have at home for dinner tonight'. They found that high and low involvement consumers chose wines differently, with the low involvement relying more on well-known brands and lower prices, while the high

involvement used region and middle range prices to select their wines. Interestingly, there were no interaction effects between brand, region, and price.

More complex choice tasks can be modelled, using more attributes. These choice experiments can reveal the importance weights and the utility values of individual brand names and regions. Perrouy, Lockshin, and d’Hauteville (2003) conducted such an experiment in France, Germany, Austria, and the United Kingdom. They found that brand, region, price, bottler (estate, cooperative, or limited corporation), and varietal or no varietal label differed in importance among the four countries. They also showed that involvement level in each country produced different models for high and low involvement consumers.

The choice-based experiments can be compared to actual consumer choice in the market by using ‘revealed choice modelling’ (Jarvis and Rungie 2002). Panel data purchases can be coded into the same categories as in a choice experiment (stated choice) and the utility values calculated. Table 2 shows the comparison of utility values between (Tustin and Lockshin’s (2001) results and a pseudo panel of 1500 membership cardholders’ annual purchases at an Australian chain of wine shops. Although the utilities are not exactly the same, they are similar in size and sign, indicating that choice experiments can be used to uncover the specific value of different attributes in wine choice.

Table 2: Comparison of Revealed and Stated Choice Utilities

Attribute	Revealed choice (all respondents)	Stated choice (all respondents)	Stated choice (low involvement)	Stated choice (high involvement)
Well Known Region	0.66	0.97	0.84	1.0
Well Known Brand	1.17	0.17	0.34	0.14
Low Price Range - Price Change \$12 to \$17	-0.31	-0.04	-0.49	0.33
High Price Range - Price Change \$17 to \$22	-0.73	-0.77	-0.72	-0.72

Where Next?

The review of extant literature in consumer behaviour for wine has mainly focused on identifying the attributes of importance for consumer choice. The number and

complexity of attributes provides a list and in some cases a ranking of the various cues consumers use in choosing wine. Other studies have identified consumer characteristics that affect individual behaviour. Some consumers have different risk profiles, which cause some to make 'safe' choices and others to be adventurous in choosing wine. Whether a consumer is high or low involvement affects the number of cues used in the choice process and also the way they are used. The consumption situation also has an effect on what cues are used in the purchase process.

Modelling of consumer purchases, either through the use of actual purchase data or through choice modelling experiments has begun to reveal some of the ways consumers use multiple cues in wine choice. This pathway seems to offer the best direction for further understanding of how consumers choose wines. We know that the correlation between attitudes and behaviour is weak, and that consumers will often say they do one thing and then actually do something else in the marketplace. This is why much of the previous research on consumer behaviour for wine has only been indicative of what cues or attributes are used, and why there seems to be no consensus.

Another issue is that consumers in different cultures learn about wine differently, and wine itself plays different roles in different cultures (Smith and Solgaard 2000). Cross-national research showed that involvement is a better predictor of consumer choice behaviour for wine than demographics or nationality (Aurifeille et al 2003; Lockshin et al 2001). Perhaps involvement can reveal similar purchasing mechanisms in different cultures, as wine becomes more globalised and is marketed more similarly around the world (Smith and Solgaard 2000).

The understanding of this very complex phenomenon is best advanced by utilising modelling techniques, which allow the combination of multiple cues to be assessed simultaneously. Panel data is the obvious first choice, because it contains actual consumer purchases. A new direction must be used in modelling this data for wine, rather than the brand-related approach utilised by Ehrenberg (1988) and his colleagues. It has already been shown that wine choice is more complex and that the individual cues are more complex than a simple brand name. We propose the use of the term 'Brand Constellation' for all the potential label cues, which consumers could

use in making a wine choice. The Brand Constellation would include the company name, but also some or all of the following: colour of the wine; country, region, sub-region, and vineyard; price including discounts; varietal names or combinations; winemaker(s); and style (sweet, light, heavy, tannic, etc – often on the back label). As long as these characteristics or cues can be coded from panel data, their effect on purchase can be modelled. We have to look at the unit of purchase as this grouping of multiple cues.

It is likely that the wine market is actually partitioned. Rather than being a single market, there are sub-groups within the market from which consumers purchase. Price comes to mind as a particularly useful means to separate wine into different markets, each with its particular model of purchase behaviour. Recent research by Jarvis et al (2003a) shows that consumers seem most loyal to price bands. This, of course, needs to be tested in different markets in order to show its viability. If true, then managers could design packages or Brand Constellations geared to specific price bands.

In the New World grape variety is a major factor in wine choice. It is possible that the different varieties, themselves, constitute market partitions or at least 'brands' to the wine consumer. Recent research by Jarvis, Rungie, and Lockshin (2003b) shows that grape varieties on labels in Australia, do in fact, act like brands in a Dirchelet manner, where large brands (varieties) are purchased more often and by more consumers than small brands (varieties). Red and white categories had different repurchase loyalties with white having a greater loyalty than red. They also found evidence of niche brands (varieties purchased more frequently than predicted by a portion of the population) and change of pace brands (varieties with lower than predicted repurchase). Of course this needs to be replicated with larger data sets and in different wine markets, before we can confidently utilise it in wine marketing. We may find that in Old World countries, it is the region that plays the same role as variety does in the New World, which would indicate potentially different managerial techniques for different markets.

The use of panel data for modelling can provide very clear indications of the hierarchy of cues or attributes used in wine choice by means of which ones have the

highest repurchase probability. However, there are limitations to the use of the technique. The largest is the lack of actual data to be analysed in the different world wine markets. This is likely to be overcome as wine companies see the utility of this approach and become more willing to invest in the collection of this type of data, which is exactly the case now for most fast-moving consumer goods. Another major limitation to date is the relative lack of consumer characteristics attached to these panel data sets. We have not been able to link demographics, like income, which has been related to wine choice, to these types of models. But this, too, will come as better data is collected and analysed.

The biggest limitation to the use of panel data is the inability to measure non-demographic differences in the consumers making up the panel. Since involvement has been shown to strongly influence the use of cues in wine purchase, a unsegmented model will only provide average or mean values for the various variables. High and low involvement consumers use the cues differently, so separate models should be estimated. Again, as companies realise this, short involvement scales could be incorporated into the general surveys accompanying such panels and the analysis performed on the different segments. A surrogate for involvement could be developed and tested, such as the price or brand/region repertoire of the consumers. The sample could be divided by small and large repertoires to indicate high and low involvement. The other major impediment is the lack of knowledge about the purchase situation. We know this influences how such things as price are perceived, but it would seem impossible to include this in a panel data set. One other issue with panel data is that it covers the purchasing of wine in supermarkets and other large-scale stores or chains, but it does not cover sales in bars, pubs, restaurants, hotels, and catering (HORECA). We know very little about the differences in purchasing in these points of sale versus the large supermarkets and chain stores.

Simulated choice experiments hold out promise for measuring some of the issues mentioned above. It is easy to measure involvement in an accompanying survey to a discrete choice experiment. Also, different consumption situations could be modelled to indicate how different attributes are used by the same person in different situations. We can specify both the consumption situation as well as the purchase location. This would provide evidence of how involvement interacts with the consumption situation

in different places where wine is purchased. These types of experiments are complex and usually most be done with a limited number of attributes and levels within attributes, or the sample sizes become too large. Therefore, researchers will have to conduct different experiments focusing on specific combinations. This will take time until we have a better overall picture of how consumers purchase wine in different types of outlets and for different occasions, in different countries, with differing involvement levels. The ability to compare discrete choice experiments with panel data holds promise for calibrating the experiments to real consumer choices in the marketplace. This perhaps holds the greatest promise for truly understanding what happens when the consumer stands in front of a shelf with hundreds of wine bottles facing them.

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