The influence of shelf information on consumers' wine choice

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Abstract

Prior research on consumer choice of wine has focused on information on the bottle itself, such as brand, region, grape variety and awards. We add to this stream of research by considering information on the shelf, such as short descriptions of the taste of the wine and ratings by independent agencies. Participants chose wines from two different simulated retail shelves, one containing photographs of real wine bottles and one containing graphics of simulated wine bottles. The greatest increase in choice probability was generated by star ratings followed by numerical ratings, and then by taste descriptions. Implications for retailers and future research are discussed.

Keywords: Wine choice, shelf information, wine ratings

Introduction

This article reports the effect of display information from a simulated retail shelf. While multimedia experiments aimed to forecast consumer responses to product information have been used for other categories such as cars or cameras (Urban, 1997), we develop and test a prototype of shelf information in a simulated wine retail environment. In this first application to wine choice we used a selection of wine display information that might induce consumers to trade up to higher price points. Some research has measured the effect of brand names, region, price, medals or awards using discrete choice experiments (Lockshin et al. 2006) and found some influence of brand, region and awards on prices chosen. We investigate the response of consumers to shelf display information using two different experiments involving sensory descriptions, star ratings by the retail store, and scores by wine critics in order to see if these risk reducing mechanisms have an effect on choice, including the price paid.

Literature review

Past research (EBI, 2007) observing wine shoppers in Australia found that the average time spent in front of a shelf in a retail outlet was less than a minute, and the total time browsing in the store was about four minutes. Involved shoppers spent up to 15 minutes buying wine, but these were the minority of wine buyers. Less involved wine consumers have been found to remember fewer wine regions or producers overall, with less well-known regions and producers not recalled (Dodd, 2005). Hence, 'search' attributes commonly available to a consumer on the shelf are of limited help for most wine purchasers to reduce their perceived purchase risk.

George A. Akerlof won the Nobel Prize for Economics in 2001 for his breakthrough findings on information asymmetry and its impact on market performance. He found that consumers would pay only a relatively low price when they perceive a purchase to be risky. According to Akerlof (1970) this price discount or 'risk premium' can be reduced if producers provide their trade partners with credible information, which reduces the perceived risk.

What information would be able to make a wine purchase decision for consumers less risky if information on the label is of limited help? Mitchell and Greatorex (1988) found that the taste of wine posed the greatest risk, followed by the risk of social unacceptability. A sensory description that provides information on the taste of the wine could be expected to reduce uncertainty and increase the likelihood of a wine being chosen. A wine consumer could look for advice on objective quality in the form of wine ratings from the store, wine critics' scores, or medals from wine shows indicating that the wine was evaluated favourably by experts. In addition to reducing consumers' perceived risk these accolades could also satisfy the aspirational need of exclusiveness or the social acceptance some consumers seek to fulfil with wine (Hall and Lockshin, 2000). Several studies (Deliza et al., 1996; Deliza and McFie, 1996; Guinard et al., 2001; Lange et al., 2002) have demonstrated that consumers can be strongly influenced in their taste evaluation by extrinsic attributes when tasting beverages such as wine or beer in an informed condition. Thus wine ratings, show medals and wine critics' scores could have a combined utility to wine buyers by signalling higher objective

quality and also by positively influencing how the wine will taste. While we would expect sensory descriptions, wine ratings, and wine critics' scores to have a positive influence on consumers' purchase decisions, little is known about their actual impact and relative importance on wine choice, especially in relation to price.

Method

We used two online choice experiments to measure the impact of display information on simulated retail shelves. One experiment used 21 Shiraz wines, selected from the New South Wales AC Nielsen top 100 sales data in the price range of $9 to $26, with a wide range of sensory properties and which covered both more and less well-known brands. Photographs of these wines were included in a shelf simulation showing five bottles at a time and their real market price. For a subset of six of the 21 wines we also included a short sensory description and/or rating scores on a simulated shelf talker (tag on the shelf below). Members of the an expert sensory panel characterised the wines, and based on this assessment a short sensory description was formulated for each wine in language understandable to consumers. On the 'shelf talker' below those wines selected as part of the design of the choice experiment we displayed three hypothetical ratings: one indicated to be from Kemenys retail store, one from Vintage Cellars retail store and one from Winestate magazine, with a maximum of 100 points each. The ratings were varied in both their average score (the low average was 85 points and the high one 90 points) and in the degree of agreement (variance) between the three scores (low and high agreement), resulting in four conditions (Table 1).

The presence or absence of the description or a set of rating scores was controlled by an experimental design that allowed us to independently measure the impact of the existence of the sensory description and the effect of wine critics' scores. In total 365 regular red wine consumers from New South Wales were asked to choose a wine for dinner at home with friends or family using these simulated shelves (appendix: Figure 2).

The second experiment used graphically simulated wine bottles that varied in six intrinsic wine attributes (brand, country of origin, region of origin, price, price discount and alcohol level) and four extrinsic attributes (label style, label colour, closure and medals). These results are not reported here (Lockshin et al., 2009), but the design allowed for the independent testing of the impact of each condition. With thousands of wines available in Australia only a relatively small group are rated by external wine experts. However, a retailer could develop its own quality rating system. To investigate the effect of such a retailer specific system we integrated a five star quality rating into the simulated wine bottle experiment's shelf talker. Before the experiment, respondents were informed about the definition of the quality ratings, from no stars to a maximum of five stars for an outstanding wine. Half of all wines in the experiment had no star rating (blank) while 12.5% showed either one, two, four or five stars as a quality rating. Three stars was not used in order to keep the levels to four. The star ratings were applied in an experimental design, independent of the other attributes, such as price. 1,233 regular red wine consumers from New South Wales were asked to choose wine from the simulated shelves for a dinner at home with friends and family.

Results and discussion

The impact of the presence of a sensory description was analysed by calculating how often a wine was chosen when it had a sensory description compared to when it had none. If a sensory description has a positive influence on choice then wines should be consistently chosen more often with a taste description than with no description. On average over all six wines, the presence of a taste description increased choice by 7.4%. As might be expected, the increase in choice was not the same for all six wines, but always was found to be positive and varied between 3.9% and 15.1% increase in choice. Since these increases in choice are frequency counts, statistical testing is not possible, however, the results of a multinomial logit model including the significance levels, which incorporates the descriptions and the ratings is provided in the appendix (Table 2).

Wine quality ratings are not widely used in the Australian wine retail market to assist consumer purchase, and there is not such a clear critic's influence on the Australian scene compared to markets such as the US, where Robert Parker or the Wine Spectator are very influential. Because there are a number of different sources of opinions in Australia, we were not only interested in the effect of lower or higher critic's scores but also in the effect of the degree of agreement among several critics. For a low wine rating where all three sources highly agreed with each other the impact was low as expected (1.9% increase in choice compared to no rating). Not surprisingly the condition in which all three rating sources agreed on a high rating had the highest impact, with an average increase in relative choice of 9.8%.

One could expect that disagreement between the three scores would signal to the consumers a higher risk. We found that the effect of disagreement differs for the low and high average rating conditions (Table 1). As expected, the wide variance on the high average rating scores had a somewhat lower impact on choice (7.2%) than those agreeing on the same high average (9.8%). Interestingly, if wine raters disagreed on the quality rating of the wines at the lower average level then consumers seem to be more influenced by the single high score of 95 and hardly consider the very low score (average increase of 5.9%).

Table 1: Relative impact of wine critic's point ratings with high and low average and different degrees of agreement between the critics (ratings are shown in brackets).

	Increase in choice (%)	
	Low average rating	High average rating
High agreement	**1.9%**	**9.8%**
	Scores: (83, 85, 87)	Scores: (88, 90, 92)
Low agreement	**5.9%**	**7.2%**
	Scores: (75, 85, 95)	Scores: (85, 90, 95)

At this stage we can conclude that high expert wine ratings indeed have a positive impact on consumer choice. For the greatest influence on consumer choice, retailers should consider picking the highest score available from different expert ratings and only show several ratings when they agree on a high value (e.g. above 90 points).

As shown in Figure 1, while a wine without any star was chosen 21% of the time, a wine that had a five star rating was chosen 38.6% of the times it appeared. Keeping all other attributes constant, the relative impact on choice from having no rating to a five star rating was thus 17.6%. This equates to about a 3.5% increase in relative choice per incremental star. Statistical testing within a multinomial logit model is provided in the appendix (Table 2). We see one star is not very different than no stars, but two to five stars have an incremental impact. The reasons for this should be tested in future research.

Choice models allow wine marketers to assess how consumers trade off attributes against each other. An attribute beneficial to consumers such as a quality rating could be compensated by an attribute that is less preferred such as a higher price. While adding a beneficial attribute at a constant price would increase the likelihood of the wine being chosen (i.e. more volume sold), a producer could consider raising the price by a certain amount. One might also assume that a wine that aims to achieve a five star rating is more expensive in its production than an average commercial wine with a lower rating. Taking into account the relative choice impact of price, where a decrease of choice by 10.7% was found for an increase from $7.99 to $22.99 as shown in Lockshin et al. (2009), a producer could potentially raise a wine's price by about $6 if the star rating is increased from four to five stars without decreasing sales. Similarly, an additional star from three to four might justify a price increase of about $4.
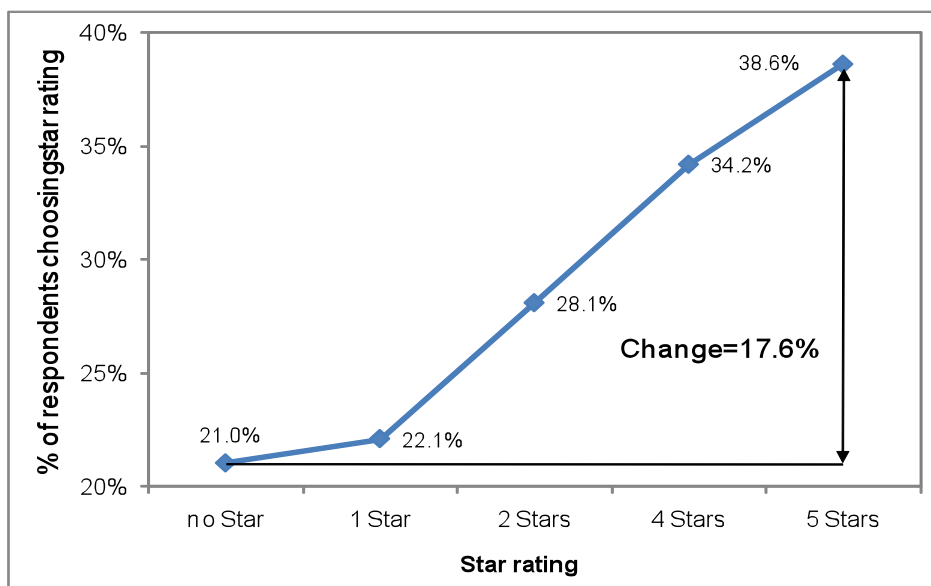

Figure 1: Impact of star ratings on relative choice.

Implications

We found a positive influence on wine choice for all information display types included in the retail shelf simulations. The effects found for the real bottle and the graphical simulated bottle experiments are not exactly comparable, but the overall effect of star ratings was the strongest with a 17.6% increase in choice between no star and five stars, an average of 3.5% per star. Quality ratings in the form of a star seem to be especially suitable as aids to decision

making, presumably as they may be more intuitive and do not require extensive cognitive processing. The presence of sensory descriptions had an average effect of 7.4%, which was similar to the impact for wine show medals (no medal to Gold and Trophy) with 7.6% (Lockshin et al. 2009, Figure 4) and wine critics' scores (7- 10%).

In these experiments respondents were asked to choose a wine for a dinner with friends or family where there is some degree of social risk present. Results for other purchase occasions are likely to be different. For very special occasions like a formal dinner or giving wine as a gift we would expect medals and expert ratings to be even more important than measured here. On the other hand, they are likely to be less important for everyday consumption or for drinking wine by oneself.

Our results also present a snapshot in time. The effects of medals, stars and scores will be reduced if they are overused or wrongly used and lose their credibility. For quality signals to keep their value they must be used sparingly and consistently to signal high perceived quality. We expect that meaningful and understandable sensory descriptions will reduce purchase risk and if used wisely can induce consumers to trade up and try new wines, thus helping unknown brands to gain market share. More research is necessary to verify this effect.

From what we found in our experiments specific information to consumers at the retail outlet has a substantial effect on whether a wine will be selected for purchase. The wine industry often declares that consumers need to be better educated without specifying the suitable means to do so. There is hardly any more frequented location for consumer information than the retail shelf. Retailers in other product categories like Amazon have set examples on how referencing systems - 'if you like this – then try that' - can be highly successful in inducing consumers to try suitable new products, trading up and reducing consumers' perceived risk at the same time. Once we better understand the preference drivers of different consumer segments, then wineries and retailers can cross-reference their products for similarity and recommendations. This is just one potential form of consumer information.

We are not advocating putting control in the hands of a few wine critics. Instead we suggest that wineries provide retailers with as much suitable information as possible to be used for marketing their wines by the retailers. These could be pre-produced taste descriptions and information on medals, wine critics' judgements, and show awards won by the wine. The star ratings were one example, which showed that retailers could develop their own in-house rating and wine description system. These currently exist and are used by some retailers. In the long run the consumer will honour that system that is the most useful to him or her with greater patronage.

From a research prospective the relative impact of different promotional materials, neck hangers, environmental messages and even advertising movies (like in YouTube) can be tested with online retail shelf simulations. Our method can be adapted to single wine producers, wine regions or a national wine industry and can test consumers in any market where there are Internet panels.

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Appendix

Figure 2: Simulated shelf of real wines with wine ratings and wine descriptions

Figure 3: Simulated shelf of graphical wines with quality star ratings

Table 2: Multinomial logit estimates and standard errors for selected levels in the two experiments

Attribute Level	Estimate	S.E.	P value	Wald	P value Wald
Experiment 1					
Sensory description	0.12	0.03	0.00	15.6	0.00
No sensory description	-0.12	base level			
No rating	-0.16	0.04	0.00	35.4	0.00
Low mean low variance	-0.18	0.06	0.00		
Low mean high variance	0.03	0.06	0.65		
High mean low variance	0.22	0.05	0.00		
High mean high variance	0.10	0.05	0.06		
Experiment 2					
No star	-0.13	0.02	0.00	123.8	0.00
1 star	-0.50	0.04	0.00		
2 stars	-0.12	0.03	0.00		
4 stars	0.23	0.03	0.00		
5 stars	0.51	base level			