

Identifying the events that coincide with growth in wine involvement

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Abstract

The level of market penetration for wine has expanded substantially in the past 30 years. As export markets have opened and developed over this time, the influx of new wine consumers has been regarded as a positive outcome by the wine sector. However, the problem is that the wine sector knows little about how and why consumers decide to become wine drinkers, nor how the level of wine involvement changes over time. Demographers recognise that consumers adopt patterns of behaviour in response to exposure to influential events. These events are both recognised for their influence on subsequent behaviour, and their capacity to explain a wine consumer's behavioural patterns. This study used a retrospective method of data collection to model patterns of wine consumption over time. The method was implemented so as to enable a measure of the relationship between a series of theoretically influential events, and changes in behavioural patterns as wine involvement changes. The retro-regression results of a time-series analysis illustrate that changes in patterns occur within the same year, if they are to occur at all. Further, the relationship between life-cycle events and changes in wine consuming patterns is seldom significant. Further research should be conducted to identify the wine-specific events that are believed to be influential on wine consumption behaviour, specifically to realise knowledge on increases in their level of wine involvement.

Key words: Time-series analysis, Involvement, Behaviour change, Consumption patterns, Life-cycle events

Topic Area: Consumer buying and choice behaviour

Introduction

Wine marketers know that their consumers take their time in learning about and appreciating wine. The process in which a consumer progresses from wine consuming débutante, along a path to vinous maven, is neither well known, nor well documented. A small number of biographies from some of the wine sector's most noteworthy contributors, suggest that cultural influences and noteworthy events often coincide with increases in wine interest. The extent of these conditions in their ability to influence a consumer's wine involvement would be useful information for any wine marketer. Given that the wine industry's success in the global market of the last 30 years has been, in part, attributed to the capacity of exporters to increase market penetration, the opportunity to identify conditions that can be conducive to the adoption or increased penetration of wine into the market should be pursued.

The time-line required to record and test the relationship between a consumer's environmental influences and specific events on patterns of behaviour demands the use of a longitudinal methodology. With the knowledge that environmental conditions, selected events and patterns of behaviour can be recalled by consumers (Schindler and Holbrook, 2003, Alba and Chattopadhyay, 1985, Cannell et al., 1977), this study aimed to measure the reliability of consumer's capacity to recall such criteria, and the relationship that these conditions and selected events have on patterns of behaviour; in this case, wine consumption. Accordingly, this study identified independent variables proposed to influence patterns of wine consumption, and using a retrospective method of data collection, tested the significance of these events at influencing patterns of behaviour through a time-series analysis.

This paper begins with a review of the literature introducing the conditions believed to coincide with changes in a consumer's wine involvement. The authors identify a method for capturing primary data on past events, and test this method for retest reliability. These variables are then introduced into a time-series model, which tests for the significance of the events at influencing changes in patterns of wine consumption. The results are subsequently discussed for the benefit of examining the relationship, before concluding the study with recommendations and suggestions for further research.

Wine Consumers and Involvement

Since Zaichowsky (1985) presented her seminal paper on the topic of involvement, the wine sector has taken to the idea with aplomb. Despite involvement being categorised into product, the sensation and the situation; many authors in the field of wine marketing focus primarily on product involvement as one of the keys to understanding the wine consumer's patterns of behaviour (Quester and Smart, 1998, Lockshin and Hall, 2003, Olsen et al., 2003, Hollebeek et al., 2007). From Quester and Smart (1998) identifying one of the mitigating factors in the consumption occasion on the consumer's level of interest in wine as a product, through Lockshin and Hall's (2003) taxonomy, to Hollebeek et al's (2007) efforts at measuring the influence on purchasing behaviour, each of these authors refers to the frequency and volume of wine consumed as one of the measures of the consumer's level of product involvement.

Other studies have focused on a variety of segmenting variables as indicative of a consumer's level of wine involvement, but with mixed success. Not only do variables such as age and gender illustrate varying relationships with a consumer's patterns of wine consumption, with the exception that older groups tend to drink more wine, there is little consistency in the style or volume consumed across a number of studies (Gluckman, 1986, Murray and Manrai, 1993, Quester and Smart, 1996, Stanford, 2000). However, as shown in the findings from these studies, the consumer's involvement with wine as

a product is found to be consistent with the frequency and/or volume of wine regularly consumed (Klatsky et al., 1990, Hall et al., 1997, Perrouy et al., 2005).

Wine and Memory

Wine consumption is not often associated with discussions on memory. However, the variations in the level of product involvement attributed to wine consumers suggests that the concept is both complex and hierarchical (Spawton, 1991, Hall and Winchester, 1999, Charters and Pettigrew, 2007). With a consumer's progression from one level of involvement to another, it is conceivable that the consumer could remember the situation or experience that coincided with their progression through the hierarchy of wine involvement.

Research has found that consumers' memories are conditioned to record and recall useful information, based on a level of awareness and the existing neural structure in the consumer's mind (McCloskey and Glucksberg, 1978, Gardial and Biehal, 1985, Baddeley, 2004). What consumers are not good at recalling are specific details among a series of repeated events. For example, asking a consumer to indicate the price of a loaf of bread at their regular place of purchase from 18 months ago is not likely to elicit a perfect response. Unless the consumer had a specific reason for remembering such an occasion, and for recording the price at that occasion, the likelihood of recalling such information validly is very low. What the consumer is more likely to recall is their frequency of purchase, or the range of prices paid in that period (Earles et al., 1999, Dere et al., 2005, Hart et al., 2007).

The consumer's capacity to recall specific details from memory depend on the consumer's awareness at the time of exposure; the level of interest that the consumer had at the time of exposure; and the level of disturbing factors in the ensuing period as the consumer encoded the exposure to memory (Kandel, 2006). Accordingly, consumers have a much greater capacity to recall events, places and people when these memories are emotionally relevant to the respondent (Belk, 1988, Noble and Walker, 1997).

Armed with the knowledge that consumption can be used as a proxy indicator of involvement, and that the consumer is able to recall emotionally-relevant events that could coincide with changes in consumption patterns, the study turned to the potential to identify the relationship between those events and changes in the consumer's wine consumption patterns.

Evolving Involvement

The literature suggested that a consumer's level of wine involvement can only grow over time (Hawkins and Hoch, 1992, McWilliam, 1995, O'Mahoney et al., 2005). However, given that the influences on a consumer's changing levels of wine involvement are little known, the literature on changing behavioural patterns suggests that life-cycle events coincide with changes in behavioural patterns (Penn and Phillips, 2003, Rojas, 2005, Schewe and Meredith, 2004). Consequently, the intention of this study was to capture the changing frequency of a consumer's wine consumption over time, and test whether life-cycle changes had a significant impact on a consumer's level of wine involvement.

In regard to measuring the consumer's frequency of wine consumption, there are both Governmental standards, and norms that have been followed by researchers for distinguishing between non, occasional and regular levels of consumption (AWBC, 2002, Boyne et al., 2003, Euromonitor, 2000, Zins et al., 2003). These categories are adopted as proxies for product involvement for the purposes of this study. A further group, excessive consumption, was absorbed into the regular group, due to concerns over the

questionable reliability of respondents to report their consumption under this category (Alanko, 1984, Engs and Hanson, 1990, McCabe et al., 2006).

The study utilised a retrospective method of data collection from a sample of wine consumers from a national database of a major retailer within the Australian market. A total of 972 responses were collected over two weeks through an on-line survey. Respondents were asked to indicate the year in which they began consuming wine, either occasionally or regularly, and then to indicate in any year when such a pattern may have changed or ceased. On completion of this task, respondents were then asked to input the years that a series of significant events had taken place in their lives. The events ranged from the year they first went to school, moved out of home, im/emigrated or had their first child. By plotting the occurrence of these events against the respondent's change in behaviour, the capacity to test the significance of any change in response to the event can be identified.

Results

The first step in the study was to identify whether respondents could reliably recall their patterns of consumption and significant events. All respondents who provided an email address in the first collection of data were invited to complete the survey again, at a delay of two months from the completion of the first survey. The method for collecting the data was for an indefinite period for patterns of behaviour and a dichotomous response for the significant events.

Accordingly, the data collected for the continuous period was compared for the percentage of agreement between the years beginning and changing across the two samples. The differences between the two samples were measured as a percentage correct for the second study when compared to the first. The results found that for the four categories of wine, 232 respondents correctly indicated the same patterns for the same years of consumption for between 77% (fortified wine) and 92% (Red wine) of the consumption years indicated from the first study.

For the significant events, the recall reliably followed the accepted measure of retest reliability by measuring the respondent's capacity to recall the incidence of the same event occurring in the same year between two separate surveys of the same questions. The results for the 10 significant events are shown in the following table. The significant events are followed by the number of responses received for that event, with the retest reliability measure being the mean absolute difference between the year indicated in the first sample when compared to the second sample.

Life Event (n)	MAD
Immigration (65)	0.2
Birthdate (237)	0.3
First Child (183)	0.3
Life Partner (206)	0.3
Finishing School (236)	0.4
First House (217)	0.7
Leaving Home (235)	0.9
Retirement (54)	1.8
Career Path (229)	4.1

Figure 1 Re-test reliability for significant life events

With the knowledge that consumers can recall both significant life events and patterns of consumption with a degree of reliability, the table below illustrates the proportion of the sample whose patterns of behaviour changed in conjunction with the occurrence of these significant events.

Alcohol Category v. Significant Event					Mean
	White Wine	Red Wine	Sparkling Wine	Fortified Wine	
Meeting Life Partner	3.7%	4.1%	3.8%	3.1%	3.6%
Immigration	2.9%	1.4%	3.2%	3.5%	2.7%
Home Purchase	2.8%	2.4%	2.3%	2.3%	2.5%
Leaving Home	2.5%	3.1%	2.3%	1.9%	2.5%
Career Change	2.2%	1.7%	1.5%	-0.3%	1.4%
Retirement	1.9%	-0.8%	0.6%	-1.3%	1.2%

Finishing School	0.6%	0.7%	0.6%	0.1%	0.5%
First Child	-2.8%	0.2%	-0.7%	0.0%	-1.4%

Figure 2 The proportion of respondents whose consumption patterns changed the year after experiencing a significant life event

These results, whilst interesting, show that there are only small numbers of consumers whose consumption patterns change in conjunction with any significant events indicated. Consequently, the intention was to identify the significance of these events on consumption behaviour. As such, a model was developed to test whether an involvement change (y) is related to a life event (x_i) that happened during the same year (or the following year). However, as one's involvement changes for the various wine types as well as one's life events, they will be highly correlated by nature. The model was then corrected by the addition of control variables (z_j), as shown in the formula

$$y(x,z) = a + b * x_i + c * z_j$$

The exercise was cumbersome and with the modest overlap between changes in behavioural patterns and significant events, results were not found due to the effect of collinearity between the variables.

Conclusions

The intention of this study was to identify how a wine consumer's product involvement changes over time. Due to the lack of consistency between findings on product involvement across the literature, this study attempted to identify the events that coincided with changes in product involvement, as indicated by a change in the frequency and volume of wine consumed.

The use of a retrospective method of data collection shows promise for its capacity to obtain reliable data. However, the limitations of that reliability suggest that further research is warranted to identify methods for improving the practicality and reliability of data collected in this manner.

Further, the attempt to identify the significance of events in effecting a change to wine consumption patterns is inconclusive from the data identified here. Although the effect of an event on a pattern of behaviour is theoretically measurable, the events used in this study have shown little relationship with respondents' wine consumption patterns. Further research should be conducted to identify the events that do coincide with a change in wine consumption patterns, which would offer the potential to test for their significance in influence in a subsequent study. Another option is to consider the application of another, time-dependent structural model, like the one below.

$$y(t) = a + b * x_i(t) + c * z_j(t)$$

However, for these models, added detail is required from the source data, which needs to be taken into account in any further studies.

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