A Multinational Study of Gender Wine Preferences

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Abstract

Wine has become an international business, and the difference in wine preferences based on consumer's gender and how these differences vary from country to country are important issues that should be considered in wine product development. We examined consumer's preference for the type of wine and wine packaging, consumer's information search behavior, and consumer's coping mechanism among wine consumers in the USA, Australia, and New Zealand. A t-test was conducted to distinguish the gender difference among wine consumers in those countries, and the results showed that the pattern of gender preferences was fairly consistent from country to country—which indicated that gender was a salient basis for segmenting the wine market. The results also implied that in order to better serve customers, retailers should pay close attention to wine packaging and provide enough product information, knowledgeable staff, and point-of-sale advertising since these could help consumers adopt a new wine product.

1. Introduction

Wine has become a global business and wineries now need to be able to sell their products in many different markets. From both a marketing standpoint and a product development standpoint, it is imperative to know how consumer preferences vary from country to country (Bozarth and Handfield 2006). The evolution of an increasingly global economy means that it is necessary for firms to develop business strategies applicable to a variety of competitive environments (Ohmae 1990). Transnational corporations need to understand characteristics of consumers in many different cultures. In order to deepen our understanding of international wine preferences, we undertook a web based survey questioning a variety of wine preferences and consumer attributes in Australia, New Zealand and the United States.

In the United States, the export of wine hit an all-time high of $876 million in 2006 (McCallum 2007). In addition, the long-term trend of California wine exports shows steady expansion in all major markets and growth in new, undeveloped markets such as South Korea, China, and Taiwan. Competition is especially fierce in the United Kingdom where the market is extremely sensitive to prices.

Prior research has shown that there are distinct differences across national boundaries. Goldsmith et al (1998) found that in comparisons across three countries, German and French students reported consuming more wine than American students. The data also showed that U.S. women consumed more wine than men. In the German sample, however, consumption was about equal between men and women. In France, men reported consuming more wine than women (Goldsmith et al 1998). The difference in wine preferences based on the gender of the consumer and how these gender differences may vary from country to country is an area that requires further exploration.

2. Literature Review

According to a study by the Wine Market Council, 60 percent of Americans who consume wine once or more a week are women (Nigro 2006), and women buy 80 percent of the wine sold in the U.S. (Todd 2005). To be more specific, 80 percent of the shoppers purchasing wine on the retail shelves are women and many of these purchases are in grocery and discount stores (Hunt, 2005). Joanne Yaccato, author of *The 80% Minority: Reaching the Real World of Women Consumers*, states in an article entitled "Through the Gender Lens" (2003), that there is a definite shortage of market intelligence from the female perspective. In order to achieve competitive advantage as the global wine industry grows more competitive, marketers and winemakers must determine how best to differentiate their brands to consumers in order to appeal to various market segments. Women have become an important such market segment.

2.1 Gender Differences

Segmentation research seeks to find groups of consumers defined in terms of demographics, attitude, lifestyle, geographic area or other variables that have a differential response to marketing control variables (Wind 1978). Segmentation allows a supplier to respond to consumer trends quickly. Marketers and retailers both must understand their customers in order to segment and serve their target markets more effectively (Levi and Weitz 1998). The globalization of markets has prompted international marketers to question whether the purchase behavior of buyer segments from country to country is similar enough to allow a standardized marketing strategy worldwide (Ghoshal 1987, Yip 1989).

For instance, Slama and Tashchian (1985) found gender and income to be related to purchasing involvement. Lower income consumers and females tend to be more highly involved in the purchasing process (Slama and Tashchian 1985). Preferences of men and women in the United State were examined in a 2007 study by Atkin, Nowak and Garcia. That study found that if a consumer is unsure about making a wine selection, women are more apt than men to seek information from store personnel, a server, sommelier, or tasting room personnel. Labels and shelf tags are also more important for women. While the region of origin of the wine is important to both genders, women rely on medals and awards more than men to make the purchase decision (Atkin, Nowak and Garcia 2007). Men displayed a stronger preference for the most expensive ($25.00 and up) price category. Women, on the other hand, showed a stronger preference than men for the $10.00 to $14.99 wines. Another difference was that women reacted more negatively than men to metal screw caps and showed a stronger preference for natural cork. The effects found in that study related only to consumers in the United States.

There are many reasons for such a difference postulated in the press and in trade articles. In addition to family responsibilities, many U.S. women work outside their homes. These women typically average 60 to 70 hours or more each week between their job and home responsibilities. These women are self-confident and individualistic, concerned with convenience, knowledgeable and demanding consumers, and indifferent to small price differences among stores or merchandise (Berman and Evans 1998). These women suffer from a "poverty of time" and often place a high value on goods or services that minimize time expenditures (Berman and Evans, 1998). However, the importance of the wine purchase, perhaps an informal occasion versus a formal occasion, may affect the amount of time spent making a decision and evaluating alternatives.

In the academic literature, Spawton (1991a) contends that the major influences on wine purchase decisions are: perceived risk; product cues such as brand, label and price; product experience and knowledge; and the product-use situation. Fennel (1978) also found the product-use situation to be a critical factor in the purchase decision. Is the wine for consumption at home with family or for a dinner out with business associates? In other words, is there social or financial risk involved in the purchase?

The purpose of this paper is to examine the preferences for wine expressed by women in the United States, Australia, and New Zealand and compare them to the preferences expressed by men in those countries. Differences in information search and coping mechanisms will also be addressed. This will allow marketers to see if gender preferences remain consistent across national boundaries.

For example, the issue of gender plays a role in packaging preferences such as the type of closure preferred (Thach 2002). Screw caps have recently been reintroduced worldwide and their adoption by men has been greater than by women. In a 2007 study, a logistic regression analysis calculated that the odds that men would adopt the screw cap were greater by a factor of 1.281 compared to women (Atkin, Garcia and Lockshin 2007). When the data was broken out by country, it was evident that gender was insignificant in Australia and New Zealand but was significant for the United States. In the US, the odds that men would adopt the screw cap were greater by a factor of 1.500 compared to women. Women in New Zealand were actually more likely to be adopters of screw caps compared to men although this result was not significant.

2.2 Information Search and Risk Reduction

The context in which the product is sold affects how information reaches the consumer. More and more, it is the retailers that are the critical link in getting a brand into the hands of the consumer. As far as supermarket sales are concerned, up to 70% of consumer decisions are made in the store (Bramwell, 1997). Gender may have an impact here because women are more likely to purchase wine at a supermarket. An analysis of American wine consumers found that women are more likely to ask questions of store personnel and sommeliers while men are more likely to read books on wine (Atkin, Nowak and Garcia 2007).

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The extent to which a consumer searches for information depends, in part, on that individual's perception of the risk attached to the purchase. It appears that in certain wine consumption situations there is an element in the decision process that involves a risk-aversion strategy (Spawton, 1991b; Mitchell and Greatorex, 1989; Gluckman, 1990). Mitchell and Greatorex (1989) propose that purchasing wine mostly involves functional risks such as social risks, financial risks, and physical risks. Social risks may involve trying to avoid being embarrassed in front of business associates and friends; financial risks involve the cost of the wine, and physical risks involve the actual effects from alcohol consumption.

Spawton (1991b) identified six risk-reduction strategies used by wine consumers:

1. Selecting wine brands that represent consistent quality and are included in the range of "safe brands" established in the mind of the wine consumer;
2. Selecting wines based on the recommendations of friends and colleagues;
3. Following the advice of sales associates;
4. Using their own knowledge gained through wine education;
5. Price (as an indicator of quality); and
6. Packaging and labeling as an indicator of quality.

Packaging includes attributes such as the closure, label design, and label wording. For example, medals appearing on the bottle have become a means of signaling quality to the wine purchaser. According to Ulrich Orth (2002), only a fraction of worldwide sales of wine go to sophisticated wine connoisseurs who are able to evaluate the quality of a wine based on varietal, producer, vintage, and vineyard. Orth contends that one method the average wine consumer relies on for signaling a quality wine is medals, usually at the gold or silver level. The paper stick-on medals help wine buyers quickly and reliably find quality wines on their retailers' shelves.

2.3 International Differences

Consumer reactions to a variety of package attributes have been shown to vary across countries. A stark example is the issue of screw caps on wine bottles. The results of a conjoint analysis published in 2007 showed Americans to weight the overall value of the closure about twice as important as the Australians and New Zealanders: US-14%; Australia- 7%; New Zealand 7%. Further, Australians and New Zealanders put more importance on the region of origin than did the Americans. Those results also clearly show that Australians and New Zealanders prefer screw cap/Stelvin closures more than do Americans (Atkin, Garcia and Lockshin 2007).

Previous cross national research in wine consumption by Goldsmith et al. (1997) showed that wine consumption patterns of each gender vary from country to country. That study began by measuring consumer innovativeness for the wine product category in order to understand transnational consumer reactions to new products. The authors assert that "One of the most important challenges for consumer behavior research is extending the applicability of consumer theory to cover different countries and cultures."

Comparisons across the United States, Germany and France revealed that German and French respondents reported drinking more wine than their American counterparts. T-tests of the differences in means between men and women in each country showed variation across national borders. In the U.S. sample, women reported consuming more wine than men. In the German sample, wine consumption was about equal between men and women. Lastly, men reported consuming more wine than women in France (Goldsmith et al. 1997).

Based on the preceding discussion of wine buying behavior, we developed a set of research questions to ascertain the consistency of gender differences in the wine purchasing situation. Do women's preferences differ from those of men in a similar fashion in the United States, Australia, and New Zealand?

Based on the work of Goldsmith et al (1997), we hypothesize that gender preferences will NOT remain consistent across nationalities.

Specifically, the difference between the means of male wine consumers and female wine consumers will not remain consistent across nationalities in the following categories:

1) Type of wine
2) Packaging
3) Information search behaviors
4) Coping mechanisms in the absence of information
5) Price

3. Methodology

3.1 Data Collection

In cooperation with a Napa Valley-based closure manufacturer and a few U.S. wineries interested in consumer preferences, we sought to determine the preferences of relatively frequent purchasers of wine (see preceding paragraph) in the United States, Australia, and New Zealand. We thought that consumers who appeared on various retailer or wine club mailing lists would be more likely to have developed well-formed opinions, being regular wine drinkers, and would provide the best indication of why or why not they purchased certain wines. One of the goals of the study was to examine the preferences of female consumers to see if their preferences differed from male consumers. A second goal was to see if these gender preference differences varied from country to country.

Respondents were obtained in the United States by sending emails to the customer lists provided by wine-related groups such as the Wine Brats and the Winex Wine Club. Respondents were obtained in Australia and New Zealand by using an email list obtained from direct mail wine companies. The survey was posted on the Internet from June 15, 2004 to November 14, 2004. There were 3,613 total respondents to the study; 1429 from Australia, 493 from New Zealand, and 1691 from the United States. Key demographic data appear in Table 1 in the appendix.

Research was conducted by designing a web-based survey regarding various wine features. Scales were developed by reviewing the literature and using existing scales where possible. The specific questions were pre-tested with 50 respondents in the United States. The survey was then adapted to Australia and New Zealand nomenclature and monetary values in collaboration with Dr. Larry Lockshin of the University of Adelaide in Australia. We collected empirical data by administering a survey in order to understand consumers buying preferences for a variety of wine attributes. Respondents used a 7 point scale to rate the following attributes:

1) Type of wine: dry white, aromatic white, dry red, blush red

2) Region of origin of wine: Australia/New Zealand, France, Sonoma/Napa, Chile/Argentina

3) Closure type: traditional cork, synthetic cork, screw cap

4) Price: \$2.00 to \$9.99; \$10.00 to \$19.99; \$20.00 to 24.99; \$25.00 and up

5) Winery size: small boutique, mid-size region winery, large nationally recognized winery, international conglomerate winery

A copy of the survey questions appears as Table 2 at the end of the paper.

Additional questions delved into the nature and extent of information search undertaken by respondents and the coping mechanisms used in conditions of uncertainty. For example, one question related to information search and asked "when I am unsure about making a wine selection I…" This question was followed with nine statements. The respondent could respond by indicating on a 7 point scale the degree to which they agreed with each statement. A "1" indicated "strongly disagree" and "7" indicated "strongly agree". The statements were: look at the bottle label, read the store shelf tags, look for newspaper or magazine reviews/recommendations, read books on wine, ask friends or family, consult the restaurant menu recommendations, consult with store personnel, consult with restaurant/winery personnel (server, sommelier), and other (see Table 3). A subsequent statement asked about choice criteria or decision coping mechanisms when "unsure about making a wine selection". Additional survey details can be obtained from the primary author.

The means and alpha coefficients of scale items that could later be formed into higher level constructs are shown in Table 3.

3.2 Data Analysis and Results

Short descriptions of significant results of independent samples t-tests are listed below. The means and standard deviations of men and women in each country appear, with the higher mean in bold. The t value of the difference between the means of men and women in each country are reported, as well as the p values of those differences.

(1) Wine Preferences

We first address the difference in preference for basic types of wine. In all three nations, both genders ranked the types of wine in the same order with dry red wines ranking the highest, followed by aromatic white, dry white, and blush red ranking the lowest. An independent-samples t-test comparing the mean scores of the male and female groups in the US, Australia, and New Zealand found some significant differences between the means of the two groups within all three nations.

The results indicate that men had a stronger preference for red wines in all three countries. On the other hand, women in Australia and New Zealand show a stronger preference for aromatic white wine than the men. This did not hold true in the United States, where there was no significant difference between men and women for aromatic white wines. For blush red (rose) wines, women in Australia and New Zealand showed a significantly stronger preference. The opposite was true in the United States, where the men showed a significantly stronger preference. There was no significant difference on dry white wines in any country.

Although both genders showed the greatest preference for **dry red wines**, the mean for men was significantly higher than the mean for women in each country. The t-test results are shown below:

US: m_{men}=**6.37**, sd=1.16; m_{women}=6.13, sd=1.35; $t(1372)=3.333$, $p<.01$
Australia: m_{men}=**6.33**, sd=1.71; m_{women}=5.83, sd=1.67; $t(1182)=6.003$, $p<.01$
New Zealand: m_{men}=**5.67**, sd=1.51; m_{women}=5.27, sd=1.68; $t(418)=2.532$, $p<.05$

The US men showed the stronger preference for **blush reds (rose).** The opposite was found in Australia and New Zealand where women showed a significantly stronger preference for blush reds. The results shown below demonstrate this interesting reversal:

US: m_{men}=**2.45**, sd=1.63; m_{women}=2.13, sd=1.57; $t(1372)=3.657$, $p<.01$

Australia: m_{men}=2.72, sd=1.63; m_{women}=**3.08**, sd=1.71; t(1182)=-3.427, p<.01
New Zealand: m_{men}=2.68, sd=1.45; m_{women}=**3.15**, sd=1.61; t(418)=-3.114, p<.01

(2) Packaging (Closures)

Packaging is a very important clue for many shoppers when trying to assess the quality of a wine. It can be used as a proxy for quality when the wine cannot be trialed personally. A controversial aspect of packaging is the closure. Several other packaging issues are dealt with in the information search and coping mechanisms sections.

We found some interesting results regarding natural cork. The t-test results reveal that women in all three countries had a stronger preference for **natural cork** than men do. The results are shown below:

US: m_{men}=5.37, sd=1.43; m_{women}=**5.67**, sd=1.35; t(1372)=-3.955, p<.01
Australia: m_{men}=4.85, sd=1.63; m_{women}=**5.22**, sd=1.46; t(1181)=-3.798, p<.01
New Zealand: m_{men}=4.71, sd=1.31; m_{women}=**4.97**, sd=1.23; t(418)=-2.096, p<.05

Similarly, women in all three regions significantly preferred **meta-cork** than men do. Note: the meta-cork is no longer available. It consisted of a device attached to the cork so the closure could be twisted off without the need for a corkscrew. A video embedded in the internet survey informed respondents of how it worked. These results are shown below:

US: m_{men}=4.11, sd=1.23; m_{women}=**4.31**, sd=1.23; t(1372)=-2.913, p<.01
Australia: m_{men}=3.52, sd=1.25; m_{women}=**3.91**, sd=1.17; t(1181)=-5.117, p<.01
New Zealand: m_{men}=3.55, sd=1.05; m_{women}=**3.81**, sd=0.91; t(418)=-2.646, p<.01

Furthermore, US men had a stronger preference for **stelvin screw cap** than US women. There was no significant difference regarding stelvin screw cap between men and women in either Australia or New Zealand.

US: m_{men}=**3.99**, sd=1.75; m_{women}=3.20, sd=1.79; t(1372)=7.875, p<.01

The t-test results show that Australian women had a stronger preference for **synthetic cork** than did Australian men. The opposite was found in New Zealand where men significantly preferred synthetic cork more than New Zealand women did. The results are shown below:

Australia: m_{men}=3.14, sd=1.53; m_{women}=**3.33**, sd=1.54; t(1181)=-1.984, p<.05
New Zealand: m_{men}=**3.46**, sd=1.34; m_{women}=3.17, sd=1.35; t(418)=2.240, p<.05

A possible reason behind those findings could be that women preferred a closure that was **easy to open**, a conclusion that can also be drawn from the t-test results shown below:

US: m_{men}=4.11, sd=1.23; m_{women}=**4.31**, sd=1.23; t(1372)=-2.913, p<.01
Australia: m_{men}=3.52, sd=1.25; m_{women}=**3.91**, sd=1.17; t(1181)=-5.117, p<.01
New Zealand: m_{men}=3.55, sd=1.05; m_{women}=**3.81**, sd=0.91; t(418)=-2.646, p<.01

The t-test results also reveal that women in all three countries preferred a closure that was **easy to reseal**. The results are shown below:

US: m_{men}=3.93, sd=1.79; m_{women}=**4.39**, sd=1.76; t(1365)=-4.646, p<.01
Australia: m_{men}=4.34, sd=1.81; m_{women}=**4.84**, sd=1.72; t(1170)=-4.544, p<.01
New Zealand: m_{men}=4.61, sd=1.59; m_{women}=**5.12**, sd=1.47; t(416)=-3.412, p<.01

Interestingly, women showed a significantly stronger preference than men for the **sound of the cork** in U.S. and

Australia. The direction was the same in New Zealand but was not quite significant.

US: m_{men}=3.21, sd=1.85; m_{women}=**3.59**, sd=1.92; $t(1369)=-3.634$, $p<.01$
Australia: m_{men}=2.71, sd=1.80; m_{women}=**3.18**, sd=1.93; $t(1180)=-4.050$, $p<.01$
New Zealand: m_{men}=2.80, sd=1.60; m_{women}=**3.22**, sd=1.80; $t(415)=-2.544$, $p=.011$

Only U.S. women showed a significantly stronger preference for the **tradition of natural cork**.

US: m_{men}=3.68, sd=1.92; m_{women}=**4.13**, sd=1.93; $t(1369)=-4.144$, $p<.01$

According to the t-test results, we can see that women in the US, Australia, and New Zealand prefer a closure that is easy to open and easy to reseal. Australian women, however, had a significantly greater preference for **no cork screw.** There was no significant difference regarding no cork screw between men and women in either the US or New Zealand.

Australia: m_{men}=3.06, sd=1.77; m_{women}=**3.30**, sd=1.85; $t(1178)=-2.127$, $p<.05$

(3) Information Search

The next area of research concerned the information search habits of men and women. In regard to information search, the t-test results show some significant difference among women and men within all three nations. That is, when not sure about the wine, women showed a significantly stronger preference for acquiring on the spot information, such as asking their **friends**. Followings are the t-test results:

US: m_{men}=4.56, sd=1.72; m_{women}=**5.08**, sd=1.63; $t(1359)=-5.568$, $p<.01$
Australia: m_{men}=4.25, sd=1.71; m_{women}=**4.98**, sd=1.47; $t(1164)=-7.093$, $p<.01$
New Zealand: m_{men}=3.90, sd=1.64; m_{women}=**4.57**, sd=1.54; $t(408)=-4.253$, $p<.01$

U.S., Australia, and New Zealand women were more likely to ask questions of the **sommelier** than men. These results are shown below:

US: m_{men}=5.57, sd=1.45; m_{women}=**5.83**, sd=1.35; $t(1363)=-3.364$, $p<.01$
Australia: m_{men}=4.95, sd=1.60; m_{women}=**5.32**, sd=1.51; $t(1169)=-3.687$, $p<.01$
New Zealand: m_{men}=4.28, sd=1.65; m_{women}=**4.79**, sd=1.57; $t(408)=-3.172$, $p<.01$

Additionally, women also more likely to read the **menu** in restaurants when they were not sure about the wine—as can be seen from the t-test results below:

US: m_{men}=4.34, sd=1.66; m_{women}=**4.90**, sd=1.53; $t(1354)=-6.288$, $p<.01$
Australia: m_{men}=3.93, sd=1.61; m_{women}=**4.56**, sd=1.59; $t(1162)=-6.244$, $p<.01$
New Zealand: m_{men}=4.01, sd=1.55; m_{women}=**4.36**, sd=1.46; $t(407)=-2.296$, $p<.05$

Finally, women in all three nations showed a stronger tendency to read the **shelf tags** in stores when they did not have enough information about wine. The results are shown below:

US: m_{men}=4.82, sd=1.57; m_{women}=**5.24**, sd=1.59; $t(1365)=-4.697$, $p<.01$
Australia: m_{men}=4.31, sd=1.67; m_{women}=**4.90**, sd=1.53; $t(1163)=-5.811$, $p<.01$
New Zealand: m_{men}=4.40, sd=1.50; m_{women}=**4.86**, sd=1.47; $t(408)=-3.116$, $p<.01$

The data analysis also shows that Australian women tend to **look at the label** on the wine bottle when they are not sure about wine, The t-test results are shown below:

Australia: m_{men}=5.35, sd=1.56; m_{women}=**5.70**, sd=1.33; $t(1171)=-3.658$, $p<.01$

New Zealand women are significantly more likely than men to **look at the reviews**.

New Zealand: m_{men}=4.19, sd=1.71; m_{women}=**4.70**, sd=1.73; $t(413)$=-2.958, p<.01

The US and Australian men tend to search for wine information more often **from books** than women in their country (see the t-test results below). This stronger tendency of men to search for information away from the point of purchase was also evident when we looked at the number of information sources reviewed. These results provide further detail to the findings of Atkin, Garcia and Lockshin (2007).

US: m_{men}=**4.83**, sd=1.79; m_{women}=4.21, sd=1.86; $t(1365)$=6.006, p<.01
Australia: m_{men}=**4.45**, sd=1.80; m_{women}=3.81, sd=1.91; $t(1163)$=5.578, p<.01

The U.S. and Australian women, however, have a stronger tendency to get the wine information from the **store personnel** than do men in their country, as can be seen below:

US: m_{men}=5.34, sd=1.42; m_{women}=**5.57**, sd=1.53; $t(1358)$=-2.807, p<.01
Australia: m_{men}=4.93, sd=1.54; m_{women}=**5.22**, sd=1.48; $t(1163)$=-2.956, p<.01

(4) Price and Winery Size

The t-test results reveal that women had a stronger preference for wine with a **medium price** ($10.00-$14.99) than men did across all three nations. The t-test results are shown below:

US: m_{men}=5.43, sd=1.40; m_{women}=**5.82**, sd=1.20; $t(1372)$=-5.419, p<.01
Australia: m_{men}=5.44, sd=1.24; m_{women}=**5.74**, sd=1.24; $t(1181)$=-3.769, p<.01
New Zealand: m_{men}=5.30, sd=1.14; m_{women}=**5.65**, sd=1.13; $t(418)$=-3.161, p<.01

A significant difference was shown in that US men displayed a stronger preference for the **most expensive** ($25.00 and up) price category. There was no significant difference among men and women in any region regarding low-priced wine.

US (expensive): m_{men}=**4.37**, sd=1.73; m_{women}=3.90, sd=1.66; $t(1372)$=4.959, p<.01

The size of the winery is related to the price of the wine and is thus worth discussing here. When asked about preferences based on the size of the winery, US men showed a stronger preference for **small wineries**, whereas Australia women seem to prefer small wineries when compared to Australia men (see the t-test results below). There was no significant difference regarding winery size between New Zealand men and women.

US m_{men}=**5.62**, sd=1.28; m_{women}=5.34, sd=1.34; $t(1372)$=3.835, p<.01
Australia: m_{men}=4.92, sd=1.30; m_{women}=**5.18**, sd=1.31; $t(1182)$=-3.223, p<.01

On the other hand, US and New Zealand women show a stronger preference for wines from **national** wineries than men in their country, as can be seen below:

US: m_{men}=4.38, sd=1.30; m_{women}=**4.55**, sd=1.31; $t(1372)$=-2.221, p<.05
New Zealand: m_{men}=4.61, sd=1.08; m_{women}=**4.86**, sd=1.06; $t(418)$=-2.359, p<.05

US women also exhibited a statistically stronger preference for **international** wineries than US men. There was no significant difference regarding international winery between men and women in either Australia or New Zealand.

US: m_{men}=3.54, sd=1.40; m_{women}=**3.80**, sd=1.50; $t(1372)$=-3.226, p<.01

(5) Coping Mechanism

When sufficient information cannot be obtained, there was a clear difference in some coping mechanisms of men and women all three countries. Women showed a significantly stronger tendency to make a decision based upon secondary criteria such as **artwork** (see the results below):

US:	m_{men}=2.69, sd=1.56; m_{women}=**3.38**, sd=1.69; $t(1366)$=-7.485, p<.01
Australia:	m_{men}=2.30, sd=1.41; m_{women}=**2.98**, sd=1.72; $t(1169)$=-7.221, p<.01
New Zealand:	m_{men}=2.43, sd=1.44; m_{women}=**3.01**, sd=1.53; $t(413)$=-3.950, p<.01

and **medals won** (see the results below):

US:	m_{men}=4.05, sd=1.62; m_{women}=**4.68**, sd=1.51; $t(1367)$=-7.154, p<.01
Australia:	m_{men}=4.16, sd=1.59; m_{women}=**4.53**, sd=1.60; $t(1174)$=-3.767, p<.01
New Zealand:	m_{men}=5.19, sd=1.14; m_{women}=**5.63**, sd=0.97; $t(416)$=-4.162, p<.01

When not sure about the wine, the US and Australian women show a stronger tendency to buy wine by just **randomly choosing a bottle** (see results below):

US:	m_{men}=2.40, sd=1.53; m_{women}=**3.13**, sd=1.74; $t(1368)$=-7.873, p<.01
Australia:	m_{men}=2.18, sd=1.49; m_{women}=**2.60**, sd=1.63; $t(1178)$=-4.337, p<.01

or **buying based on price** (see results below):

US:	m_{men}=4.21, sd=1.48; m_{women}=**4.58**, sd=1.46; $t(1369)$=-4.461, p<.01
Australia:	m_{men}=4.21, sd=1.51; m_{women}=**4.43**, sd=1.61; $t(1171)$=-2.253, p<.05

However, US and Australian men felt less negative about walking away **without buying** a bottle of wine. These results are shown below:

US:	m_{men}=**1.98**, sd=1.45; m_{women}=1.65, sd=1.22; $t(1368)$=4.441, p<.01
Australia:	m_{men}=**1.99**, sd=1.52; m_{women}=1.75, sd=1.36; $t(1174)$=2.649, p<.01

4. Discussion

Perhaps the most interesting conclusion to be derived from this data is that the pattern of gender preferences was fairly consistent from country to country. Women in each country tended to show a similar pattern of preferences when compared to men. That means that gender is a salient basis for segmenting the market.

As far as the type of wine preferred, the results were mixed. Both genders ranked red wine as the favorite wine type in the U.S., Australia and New Zealand. This is interesting because the media often portray white wines to be the favorite of women. The authors were surprised to see that men in the U.S. had a stronger preference for rose than women. More research is needed to pin down gender preferences and question old assumptions.

In the product development process, it is important to design a package that will appeal to consumers. What type of closure to use is an important part of the package design. Prior research has shown that in the United States the odds that men would adopt the screw cap were greater by a factor of 1.500 when compared to women (Atkin, Garcia and Lockshin 2007). U.S. women exhibited a significantly more negative attitude toward the screw cap than men (Atkin, Nowak and Garcia 2007). The analysis presented here reveals that in Australia and New Zealand, there is no significant difference between men and women regarding the screw cap. The closure issue continues to be controversial with Australasians reacting positively to the screw cap while Americans, especially women, resist the screw cap in favor of natural cork.

It is known that consumers use a variety of cues when making quality judgments. They consider price, the label, the brand, the region of origin, and shelf position (Jacoby and Olson, 1985; Lockshin et al., 2006; Lockshin and Spawton, 2001). Many of the attributes are under the control of the producer so consumer response should be considered before implementing these attributes. Much of this information is an integral part of the package. An experiment providing information to some consumers and not others showed that knowledge of the purpose of alternative closures increased their acceptance (Murray and Lockshin, 1997), so there is some proof that point-of-sale information can help consumers adopt a new product.

Women demonstrated a stronger tendency than men to consult a variety of sources in order to gather additional information. Prior research showed that in the United States, women had a significantly stronger preference for acquiring on the spot information (Atkin, Nowak and Garcia 2007). The current analysis further details that finding, as women were more willing to ask questions of the sommelier and consult the menu in a restaurant in each country. In a retail environment, women were more willing to read the label and read shelf tags. The international analysis presented here shows that this pattern of female information seeking repeats itself across international boundaries. It would be advantageous, therefore, to isolate groups of potential customers who place differing emphasis on cues and to identify marketing opportunities by exploring the potential for cue combinations not currently available (Hair et al., 1998).

Another key decision to be made in the product development process is the price. Pricing preferences were fairly consistent across countries, with women showing a stronger preference for wines in the medium price range ($10.00 to $14.99) in all three countries. As an interesting side note, men in the U.S. showed a significantly stronger preference for wines in the most expensive category ($25.00 and up). These findings will help wineries to position their products in the export markets.

In the absence of sufficient information, women showed a significantly stronger tendency to rely on coping mechanisms. They were more willing than men to make a decision based on secondary criteria such as artwork, medals won, and price (see above). This pattern was evident in all three countries. Men in Australia and the U.S., however, showed a stronger willingness to just walk away without buying anything in such a situation.

Gender was selected as a segmenting variable in this international study because it has been the subject of several recent articles and because several wineries are now selling wines directed toward a female market. Many wineries are starting to develop products that appeal primarily to women, such as lighter, low-alcohol wines. Tracey Mason of Beringer Blass Wine Estates notes, “As wines are becoming so alcoholic, it is difficult to drink a glass of wine during the week, especially with women’s busy lives and having kids”. She states that sometimes “women would really like to have a glass of wine but might forego it because of the demands on their lifestyles” (Todd 2005).

In addition to developing new wines tailored to women’s tastes and busy lives, marketers also need to develop a better understanding of how women shop for wine. In other words, what types of information do they rely on in making their wine buying decisions? Isabella Chaney (2000) reported that in a sample of 109 United Kingdom consumers, the two highest ranked information sources were point of sale material and labels. Her research found that there was very little external search undertaken prior to entering the store. No information was provided on the gender of the consumers in the sample, but this type of information would be important for wine marketers to know about U.S. women who are purchasing wine.

The consistency of the responses by gender from country to country indicates that gender is an important variable to consider when developing a wine product. The effects discussed above also need to be considered when making marketing, promotion, and distribution decisions.

5. Managerial Implications

This research underscores that the retailer plays an important role in the consumer’s search process. Especially for women, the retailer needs to provide enough information for the individual to feel comfortable in making wine purchase decisions, thereby reducing the wine purchaser's perceived risk. Point-of-purchase advertising like shelf-talkers, product displays (Harvest Fair Gold Medal Winners), and knowledgeable sales staff help provide wine purchasers with the information they need to make a decision. The winery has to provide these materials to the supply chain and make sure they are being utilized. These types of information are especially important to women in all three countries.

Knowing which product attributes are used by consumers to infer the presence of desired consequences permits clearer specifications to be provided to product development departments. Even wineries that may aspire to sell only in their own neighborhood can no longer rely on regional markets remaining isolated and their offerings preferred by local consumers. If a winery is attempting to access new markets, it will need to pay attention to the packaging preferences. This paper helps wineries to determine the current consumer preferences for wine closures and to understand consumer traits leading to adoption so that firms can improve the rate of diffusion of products in new markets. For example, using screw caps on a product intended for women may work well in Australia but would not be well received in the United States.

It is interesting to note the recent *favorable* re-introduction of screw caps into the Australian and New Zealand marketplace in the early 2000s and the continued *unfavorable* reaction to screw caps by the US wine consumer during this same time frame. The screw cap managed to cross the chasm (Moore 1991) in Australia and New Zealand but not in the United States. A revealing statistic is the 2005 estimated percentage of wines available in each country with screw tops: in New Zealand close to 80% (Sogg 2005); Australia estimated at 25% (Wilson and Lockshin 2003); US estimated at less than 5% (http://www.corkamnesty.com/ accessed 2005).

Ram and Sheth (1989) suggest that a communication strategy is of primary importance to educate customers about the advantages of a resistant innovation. This strategy was in fact used with great success in Australia and New Zealand. In 2000, a group of 15 winemakers from the Clare Valley of Australia selected the Stelvin screw cap closure for their premium Rieslings. This collaboration of wineries jointly launched a marketing campaign, 'Riesling with a Twist' in which they communicated to the media, consumers and retail the quality aspects of the seal. The campaign was a huge success, as supply could not meet demand for the screw-capped wines. These wineries soon began to bottle not only their white wines but also their red wines with Stelvins.

The success of the Australian launch motivated 27 New Zealand wineries to form the New Zealand Wine Seal Initiative in late 2001 (www.screwcap.co.nz/). The Initiative also focused on educating the trade and consumers of the superiority of screw caps. This campaign educated not only the wine consumers but also the retailers on the advantages of the screw cap over natural cork closures, which were three-fold – to reduce corked bottles, to ease the opening of a bottle of wine, and to ease storage of open bottles for future consumption. By 2004, domestic market sales of screw capped wines outnumbered wines with cork closures in New Zealand (Courtney, 2001).

6. Limitation

The study sample represents wine drinkers so results can not be generalized to the population as a whole. It is a reasonable sample to understand the preferences of fairly frequent wine consumers.

7. Conclusion

In order to achieve success internationally with a new product innovation there is a need for a strong market orientation. A policy of innovating without paying attention to the needs of consumers is most likely to result in fewer successful new products (Calentone et al., 1994). An understanding of what quality means to consumers offers the promise of improving brand positions through more precise market segmentation, product planning, promotion, and pricing strategy (Zeithaml, 1998). It is important to know which cues are important and how they vary in different buying situations. As more wineries develop products targeted specifically at women in the international marketplace, they will have to pay attention on a country by country basis. We have seen here that the differences between men's and women's information search and coping mechanisms are fairly consistent from country to country. On the other hand, the difference between men's and women's preferences for certain product attributes, such as screw caps and natural corks, can vary from country to country.

Consumer perceptions of price, quality, and value are considered to be pivotal determinants of product choice. It may be advantageous to isolate groups of potential customers who place differing emphasis on cues and use different marketing campaigns for each identified segment, such as we recommended earlier for male and female wine customers. It may also be beneficial to identify marketing opportunities by exploring the potential for cue combinations not currently available (Hair et al., 1998).

The wine industry has entered a stage where just making good products is not enough to grow the market. There is a wide choice of products available for consumers and wineries need to move from a production orientation to a marketing orientation based upon understanding the consumer (Thomas, 2000). The consumer's choice is likely to be influenced to a greater extent by product attributes that are not part of the core product, such as packaging and point-of-sale information. The results of this study can be useful for industry in general as a means for gathering knowledge about the timing of a product launch evaluating ways to enter a new market.

8. Future Research

More general and public research is needed to better understand how, for example, packaging impacts the purchase decision (Thomas, 2000). Packaging is pivotal to both the delivery and acceptance of a wide range of products. Packaging is important for technical and functional reasons, but also for aesthetics and emotion. It represents the last chance to communicate with and influence the consumer.

A next step for this research will be to expand the survey to different countries. The Asian market shows great potential for growth of wine sales. A deeper understanding of consumers in Thailand, China, and South Korea could help to tap that potential.

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Appendix

Table 1 Key Demographics

	AUS	NZ	US
SAMPLE SIZE	1429	493	1691
GENDER			
Male	68.2%	53.2%	36.1%
Female	31.8%	46.8%	63.9%
INCOME* (local currency)			
< $9999	2.2%	1.7%	1.2%
10K-24,999	2.3%	3.9%	3.4%
25K-49,999	14.8%	31.7%	22.1%
50K-99,999	43.9%	44.9%	43.1%
100K or more	36.9%	17.8%	30.2%
REGULAR CONSUMPTION	91.6%	90.5%	85.4%

Table 2: Wine Survey Questions (US version)

1. All else being equal, I prefer to buy wines in the following category:
   a. Dry white wine (Chardonnay, Semillon, or similar)
   b. Aromatic white wine (Sauvignon Blanc, Riesling or similar)
   c. Dry red wine (Cabernet Sauvignon, Shiraz or similar)
   d. Blush red wine (Rose Grenache, White Zinfandel or similar)
2. All else being equal, I prefer to buy wines from the following regions:
   a. Australia/New Zealand
   b. France
   c. Sonoma/Napa California, USA
   d. S. America
3. All else being equal, I prefer to buy wines with the following closure types:
   a. Traditional Cork
   b. Metacork™
   c. Screw cap (also called Stelvin)
   d. Synthetic Cork
4. All else being equal, I prefer to buy wines in the following price categories:
   a. $2.00-9.99
   b. $10.00-14.99
   c. $15.00-24.99
   d. $25.00+
5. All else being equal, I prefer to buy wines from the following type of wineries:
   a. Small boutique wineries with limited production (for example, less than 5000 cases annually)
   b. Mid-sized regionally known wineries (for example, less than 100,00 cases annual production)
   c. Large nationally recognized wineries (for example, less than 1 million cases annual production)
   d. International conglomerate wineries (for example, over 1 million cases annually)

Buying Situation "A Few Questions"

1. I find choosing the right wine for this type of occasion daunting because of the abundance of options available
2. I find choosing the right wine for this type of occasion a bit intimidating as I might make a mistake
3. I find choosing the right wine for this type of occasion a difficult task
4. I find choosing the right wine for this type of occasion threatening because of how others will judge my selection

Your Preferences

1. I have a strong interest in wine.
2. Wine is important to me in my lifestyle
3. Drinking wine gives me pleasure
4. There are times when the wrong wine purchase can send a negative message about me.
5. There are times when it is embarrassing to buy a wine that isn't appropriate for the occasion
6. There are times when an improper buy of wine could bring me grief
7. There are times when I feel bad because I purchased the wrong wine for the occasion
8. When I'm unsure about making a wine selection, I:
   a. Look at the bottle label
   b. Read the store shelf tags
   c. Look for newspaper or magazine reviews/recommendations
   d. Read books on wine
   e. Ask friends or family
   f. Consult the restaurant menu recommendations
   g. Consult with store personnel

    h. Consult with restaurant/winery personnel (server, sommelier, etc.)
    i. Other
9. When I'm unsure about making wine selections, I:
    a. Randomly choose a bottle
    b. Buy what I always buy
    c. Don't buy anything
    d. Buy based on price
    e. Buy based on region
    f. Buy based on label artwork
    g. Buy based on medals or awards
    h. Other
10. Rate the importance of the following attributes:
    a. The tradition of opening wine sealed with a cork (uncorking the bottle and sniffing the cork
    b. The sound of the cork "pop" when opening a bottle
    c. The ritual of opening wine (i.e. the presentation & first taste at a restaurant
    d. The ability to easily open a bottle of wine
    e. The ability to reseal a wine for later consumption/transport
    f. The ability to open a bottle without a corkscrew

About Yourself

1. Number of wine related sources you routinely review including magazines, newsletter, list servers, etc. (please enter a number)
2. I have attended a wine related function (tasting, class, trade show, etc.) in the last six months
    a. Yes
    b. No
3. I frequently discuss wines with others (friends, family, co-workers, etc.)
4. Number of bottles of wine you have purchased with a screw cap (Stelvin) closure in the last month. (please enter a number)
5. How often do you drink wine
    a. Daily
    b. A few times a week
    c. A few times a month
    d. A few times a year
    e. Never
6. How many bottles of unopened wine do you have at home (monthly average)?
    a. 0
    b. 1-5
    c. 6-12
    d. more than 12
7. Screw cap closures can eliminate cork taint and greatly reduce oxygen ingression for 2 years or more. They do no leak or crumble like some corks. Many wineries have conducted taste tests, which showed that screw caps preserve the freshness and flavor of a wine better compared to traditional and synthetic corks, especially for white wines. Most wineries switching to screw caps do so because they prefer the higher quality in their wines, not because of the cost savings.

    I find this information useful for my future wine purchases
8. Are you in a wine related industry (producer, supplier, consultant, distributor, etc.)?
    a. Yes
    b. No
9. Annual Income
    a. $0-9,999

b. $10,000-24,999
c. $25,000-49,999
d. $50,000-99,999
e. $100,000 or more

10. Sex
    a. Male
    b. Female

Table 3: Means and reliabilities of the scale items

Involvement Measures	
Likert Scale: 1 strongly disagree to 7 strongly agree	α = 0.819
11. I have a strong interest in wine.	μ = 6.22
12. Wine is important to me in my lifestyle.	μ = 5.98
13. Drinking wine gives me pleasure.	μ = 6.45
Advantage of Screw Cap Measures	
Likert Scale: 1 strongly disagree to 7 strongly agree	α = 0.724
14. Rate the importance of the following attributes:	
a. The ability to easily open a bottle of wine.	μ = 4.43
b. The ability to reseal a wine for later consumption/ transport.	μ = 4.18
c. The ability to open a bottle without a corkscrew.	μ = 2.84
Tradition of Cork Measures	
Likert Scale: 1 strongly disagree to 7 strongly agree	
15. Rate the importance of the following attributes:	α = 0.774
a. The tradition of opening wine sealed with a cork (uncorking the bottle and sniffing the cork.	μ = 3.70
b. The sound of the cork "pop" when opening a bottle.	μ = 3.16
c. The ritual of opening wine (i.e. the presentation & first taste at a restaurant.	μ = 4.23
About Yourself	
11. Number of wine related sources you routinely review including magazines, newsletter, list servers, etc. (open question: range[0,127], median = 3	μ = 4.05
12. I frequently discuss wines with others (friends, family, co-workers, etc.) Likert Scale: 1 strongly disagree to 7 strongly agree	μ = 5.68
13. Annual Income	
a. $0-9,999	1.6%
b. $10,000-24,999	3.1%
c. $25,000-49,999	20.5%
d. $50,000-99,999	43.6%
e. $100,000 or more	31.1%
14. Sex	
a. Male	51.3%
b. Female	48.7%