Consumer awareness and quality perceptions: a case for Sonoma County wines

Thomas S. Atkin a & Sandra K. Newton a

a School of Business and Economics, Sonoma State University, 1801 East Cotati Avenue, Rohnert Park, CA, 94928, USA

Available online: 10 Apr 2012

To cite this article: Thomas S. Atkin & Sandra K. Newton (2012): Consumer awareness and quality perceptions: a case for Sonoma County wines, Journal of Wine Research, DOI:10.1080/09571264.2012.676540

To link to this article: http://dx.doi.org/10.1080/09571264.2012.676540

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: http://www.tandfonline.com/page/terms-and-conditions

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.
Consumer awareness and quality perceptions: a case for Sonoma County wines

Thomas S. Atkin and Sandra K. Newton*

School of Business and Economics, Sonoma State University, 1801 East Cotati Avenue, Rohnert Park, CA, 94928, USA

(Received 29 June 2011; final version received 14 December 2011)

The general hypothesis of this study is that the core wine consumer in the USA is not influenced by American Viticulture Area (AVA) (appellations) designation in deciding about wine quality above and beyond the geopolitical region designation (such as Sonoma County). Most wine consumers have higher awareness of the larger geopolitical region than the AVA's within that region. The case of Sonoma County, California, is used to investigate this question because legislation was recently enacted to ensure that the “Sonoma County” designation to be printed on all wine produced there. The authors assert that this “conjunctive labeling” will improve competitiveness. A national sample of 409 US wine consumers answer the call for more research on a national level.

Keywords: wine labels; perception; California; USA; Sonoma; country of origin; brand/s; consumer research; product differentiation; extrinsic cues; statistics

1. Introduction

A recent trend has been toward promoting wines based on smaller, more specific places of origin. In order to get a better understanding of this issue, this article focuses on the geopolitical region of Sonoma County in California. Wine is an important industry in California. Sonoma County produces about 9% of California’s total wine production at its 350 wineries. Sales of California wine to the US wine market totaled about $18.5 billion, or 199.6 million cases in 2010 (North Bay Business Journal, 2011).

Differentiation strategies focusing on the wine place of origin are often used to gain consumers’ attention. One strategy, “conjunctive labeling”, has worked effectively in a neighboring wine region, Napa Valley, since 1989, as well as two other California wine-growing regions, Lodi and Paso Robles. Sonoma County vintners explored the idea of conjunctive labeling for a number of years before the initiative became law on 1 January 2011 (Press Democrat, 2010). This legislation, which was a collaboration among Sonoma County wine industry associations, means that “any wine labeled with an AVA located entirely within Sonoma County – such as Russian River Valley or Dry Creek Valley – must also include the word ‘Sonoma County’ on the label, starting in 2014” (Halverson, 2010). Anecdotal evidence supported Sonoma County vintners’ quest to improve the recognition of their wines and improve the quality perception of their wines by consumers through conjunctive label strategies. The Sonoma County Vintners’
objectives were to build brand equity, increase wine sales and increase the American Viticulture Area (AVA) recognition within Sonoma County (Frey, 2011). Earlier empirical research on wine labels has indicated that displaying the place of origin differentiates wine products, increases consumer awareness and indicates quality of the product (Lockshin, 1997). The strategic viability and functionality of the wine label remain a critical marketing focus for wineries, as well as continued research interest (Atkin & Johnson, 2010; Bruwer & Johnson, 2010; Johnson & Bruwer, 2009; Van Ittersum, Candel, & Meulenberg, 2003).

Consumers typically use various information sources in combination with prior knowledge and usage experience when making a decision to purchase wine. Research has shown that this is a more complex experience than with other consumer products (Lockshin, 2003). Consumers will make inferences about the quality of the wine from the region of origin of the product (Verlegh & Steenkamp, 1999). Placing the geographic origin of the product on the label can be a major strategy for smaller wineries that aids in distinguishing their product (N. Frey, personal communication, August 23, 2011; Van Zanten, Bruwer, & Ronning, 2003).

Content on the wine bottle label contributes to the overall wine package design, offers visibility from the retail shelf, and helps to inform and persuade consumers. Duhan, Kiecker, Areni, and Guerrero (1999) found wine enthusiasts looked at the origin of wine as an indicator of quality and made purchase decisions based on that perception. Tolley (2005) found a shift toward promoting smaller areas such as Russian River Valley appellation in the USA or Barossa in Australia. Bruwer (2007) indicated that the jury was still out, in that the effects of these strategies on consumer purchase decisions are not known. Bruwer and Johnson (2010) later found that regional information on the wine label increased consumer confidence in the quality of the product. Atkin and Johnson (2010) found consumers looked at brand and place-of-origin information, e.g. region, country and state, when making choices in their wine purchases.

A logical next step to extend this research stream would be to assess consumer recognition of such smaller appellations as opposed to the awareness of the larger wine region. The wine label is one place where the product can differentiate itself to benefit from existing consumer awareness and present itself as an indicator of quality (Lockshin, 1997). Understanding whether wine consumers from a geographically diverse sample will have a greater awareness of regional designations (e.g. Sonoma County) over smaller appellations within that region (e.g. Russian River Valley) is a significant issue for wine business strategy and competitive advantage in product and label development.

First, to better understand the relevance of this research study, the literature framework is presented. Next, the sample and questionnaire are described in Section 3. The results of the analysis and further discussion follow in Section 4. Lastly, the conclusions with management implications, limitations and future research are conferred.

2. Literature framework

The importance of regionality and need for strong regional brands is widely accepted as a basic ingredient for the development of brand salience (Bruwer & Johnson, 2010; Perrouty, d’Hauteville, & Lockshin, 2006; Remaud & Lockshin, 2009). This is especially true for smaller producers wishing to present a perception of quality that will differentiate their wines from those of competing regions both in the USA and internationally (Easingwood, Lockshin, & Spawton, 2011). At a recent seminar, Napa Valley winegrowers discussed perceptions of the global wine market placing a higher value on smaller and smaller geographic areas, especially for the high-end grower. Also emphasized in the discussions was the inclusion of the appellations and promoting the whole Napa Valley (Franson, 2011).
Wine producers use the product label to emphasize important information about the wine. The label not only signals the content inside the bottle, but also reveals a number of other markers, such as the region or place of origin, grape variety and brand name on the front label. Both anecdotal evidence and empirical research have found wine to be viewed as a complex product (Lockshin, Jarvis, d’Hauteville, & Perrouty, 2006), and a part of that complexity is attributed to the confusing nature of wine label content (Walker, 2006). Consumers review the wine label for information to aid in their evaluation and selection of a wine product. Lockshin et al. (2006) found that a region of origin that is well known adds value to a wine regardless of other attributes such as the brand size, level of involvement or price. In addition, Lockshin et al. (2006) found that the regional awareness increased sales for both the small and large brands. Consequently, understanding some of the dynamics involved in how consumers choose wine (Lockshin, 2003), and what variables are key in their consideration continues to be a research topic of import.

2.1 Region of origin

The geographic location – origin of the grapes – is a key element in product and quality differentiation (Thode & Maskulka, 1998), and wineries have opportunities to generate additional revenue by distinguishing their products based on geographic origin. Researchers have used a myriad of terms to articulate and define geographic origin, e.g. country, region, sub-region and appellation. Research has found that the country of origin is a major factor and has a positive influence of a consumer’s product evaluation (Ballestrini & Gamble, 2006; Van Ittersum et al., 2003). Van Ittersum et al. (2003) went on to state that when a region and a product match, the regional image influences the consumer evaluation of the product in a positive way.

In Verlegh and Steenkamp’s (1999) meta-analysis, country of origin was found to have a greater effect on the consumer’s perceptions of quality than on their attitudes toward the product or purchase intentions. Other studies have found the importance of the region of origin as one of the key factors in making wine choice decisions, as well as perceived as an indicator of quality (Duhan et al., 1999; Lockshin et al., 2006; Perrouty et al., 2006). And more recent research has investigated more specific locations, such as appellations or AVA, and the potential strategic implications with place-based marketing (Atkin & Johnson, 2010; Bruwer & Johnson, 2010).

In 2007, Atkin, Nowak, and Garcia found that the geographic origin of wine (with local wines preferred over all other choices presented) was the most important attribute for both Australia and New Zealand consumers when choosing wines (Atkin, Garcia, & Lockshin, 2007). Their findings support the notion that origin information about wine functions as a key reference point from which inferences are made, and especially with unfamiliar wines.

With the trend toward sourcing and promoting grapes from more specific places of origin and promoting wines on that basis, there has been a proliferation of AVA wine label information relating to smaller and smaller geographic areas. Wine growers place the AVA on the wine label as a way to represent the unique characteristics of that specific area. Even though Falls (2000) found that the AVA includes no quality-related provisions, such as grape varieties or yield per acre, Johnson and Bruwer (2009) found that consumers may associate certain quality expectations with those AVA-approved areas.

This assignment of perceived quality is of importance in the product development process because the place of origin information claimed on the label is directly related to the source of the grapes that went into the wine. In order to claim that a wine originated in a particular county (i.e. Sonoma County), the winery must prove that 75% of the grapes were grown in that county. If an appellation is claimed on the label, 85% of the grapes must come from that specific appellation. Thus, there is much more flexibility in sourcing and blending grapes if the wine is promoted on the basis of a region or county.
In this paper, the term “region” is used to refer to a geopolitical area within a country, such as a state or county. Smaller geographic areas within a region will be referred to as “appellations” or “AVAs”. While the creation of a brand name may take many years, region of origin associations do not have to be created because most consumers already possess certain associations to that area. The image of the region can be actively used to promote the product in the marketplace. In this paper, we examine the degree of consumer awareness derived from the region of origin labeling versus appellation labeling.

2.2 Intrinsic and extrinsic cues
Consumers use cues as a way to help inform about their choice decisions. With wine, it is often difficult to assess its quality without first consuming, therefore the cues, or shortcuts can aid in the decision process. There are many different cues on the wine package that may influence the consumer’s evaluation. Wine packaging might include one or a number of these cues: region, sub-region, country of origin, as well as vintage, grape variety, style and vineyard. There are other visual cues on the label that are characteristics of the specific product, such as alcohol content, wine style, grape variety and price.

Lockshin and Rhodus (1993) found that the typical wine consumer relies upon extrinsic cues, such as price or region of origin when making decisions about wine quality. Later, Duhan et al. (1999) also found that origin of wine is often perceived as an indicator of quality, and may be used as the basis in decision-making when purchasing wine. Researchers have also looked at label, brand and shelf position as viable cues for wine choice decisions (Jacob & Olson, 1985; Lockshin & Spawton, 2001; Lockshin et al., 2006).

Once a choice decision is made and the wine is consumed, the consumer now has another layer of cues available to them. Consumers may now trust a brand or region due to their satisfaction of their decision (Bruwer & Wood, 2005). Consumers have now had the opportunity to assess other quality-related attributes, such as taste and aroma.

Price has been found to be a key differentiator for wine quality, preferences and intended purchase. Wine consumers often look at price (for a bottle of wine) as an indicator of quality (Quester & Smart, 1998). Lockshin et al. (2006) found that price had a significant effect on the likelihood of the consumer’s wine purchase, and that highly involved consumers were more likely to purchase higher priced wines than the lower involved consumers. In a later study, McCutcheon, Bruwer, and Li (2009) found price to be an important choice factor in their Australian consumer’s wine-buying decisions study.

2.3 Demographic and behavioral factors
In addition to the review of literature for the region of origin and the intrinsic and extrinsic cues related to choice decisions, demographic and behavioral factors have shown to be important variables in the analysis equations. Research studies investigating the behaviors of consumers and buyers have found definite links to the consumer’s knowledge about wine, their involvement with the product and their demographic variables. Knowledge about wine, often defined as a consumer’s perceived expertise, has been found to be a significant attribute when evaluating wines (for intended purchase) (Perrouty et al., 2006). Research has also found that a consumer, when their wine product involvement level is high, uses regional branding cues when making wine choices (Bruwer & Johnson, 2010).

The consumer’s gender has been a more difficult factor to confirm its influence in choice decisions. While Lockshin and Hall’s (2003) research found that male consumers placed greater importance on the region of origin of wine over females, McCutcheon et al. (2009)
found the opposite, in that female consumers placed greater importance on the region of origin over males when making choice decisions.

3. Research objectives, hypotheses and methodology

The aim of this research is to extend wine label and marketing research by examining consumer awareness of wine regions, such as Sonoma County, and comparing it to their awareness of the smaller appellations, such as Russian River Valley. Our research strives to answer the question:

• Does the wine consumer utilize appellation or AVA information when evaluating wine quality above and beyond regional designations, such as Napa Valley or Sonoma County?

3.1 Hypotheses

Drawing on the literature framework discussed above, the following hypotheses were tested:

H1: Wine consumer awareness of the region “Sonoma County” will be greater than the awareness of appellations within Sonoma County, such as “Russian River Valley”.

H2: Core wine consumers will have greater awareness of regional and appellation information than marginal wine consumers.

H3: Wine consumers with self-report expertise will have greater awareness of regional and appellation information than wine consumers who are not experts.

H4: There will be gender differences in awareness of regional and appellation information among the wine consumers.

3.2 Methodology

Data were collected from adult wine consumers throughout the USA. Potential respondents were screened to ensure they were at least occasional wine drinkers before proceeding with the survey. Survey Sampling International sourced the target sample, and the respondents completed the survey online via the Survey Monkey web survey platform, which was available for 7 days. A total of 409 responses were completed and used for this study.

The respondents in this study were a self-select sample, and while the sample represents a diverse group of US wine drinkers, they cannot be taken as a general population sample. The sample was close to evenly split regarding gender with 48% being male and 52% female. This sample offers a greater geographic coverage with representation from 46 states with less than 17% of the respondents from California (Bruwer & Johnson, 2010; Hussein, Cholette, & Castaldi, 2007). While this study is not a random sample, the processes used perhaps mitigate a potential limitation found in previous studies where samples were dominated by California residents and highly involved wine consumers (Atkin, Nowak, & Garcia, 2007; Bruwer & Johnson, 2010; Hussein et al., 2007; Johnson & Bruwer, 2007).

3.3 Measurement

Using adult wine consumers as our sample, we chose to measure the respondents’ traits in two ways. First, we measured their expertise level using the four items adopted by Perrouyt et al. (2006) and d’Hauteville and Goldsmith (1998). These four items were: I don’t understand much about wine; Compared to others, I know less about the subject of wine; I feel competent in my knowledge about wine and Among my friends, I am the one who is the wine expert.

An informal confirmatory factor analysis was conducted using the principal components’ extraction method enabling evaluation of the correspondence between the measurement items
in the survey and the construct being measured – expertise level. The results confirmed the validity of the four measurement items as they combined together to form one factor. The single factor had an eigenvalue of 2.88, where greater than 1 is considered significant, and accounted for 72.1% of the total variance in the measurement items. Factor solutions that account for 60% of the total variance are considered satisfactory (Hair, Anderson, Tatham, & Black, 1998). The reliability (Cronbach alpha) of the four-item factor was 0.87 and deteriorates if any measurement item is omitted, thus confirming reliability of the composite measurement of the four items.

Second, we measured their frequency of wine consumption. The Wine Market Council (2008) defines those who drink wine at least once per week as core wine consumers; over 65% of the respondents indicated that they drank wine at least once per week, thus were considered core wine consumers for the purpose of this study. Those who indicated they drank less often than at least once per week were considered marginal wine consumers for the purpose of this study. Additional demographic data are shared with respect to the two subsamples (core and marginal) and the total sample, and are given in Table 1.

### Table 1. Core and marginal consumer demographics $N = 409$.

<table>
<thead>
<tr>
<th>Category</th>
<th>Core Wine consumers</th>
<th>Marginal Wine consumers</th>
<th>Total Wine consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>125</td>
<td>63</td>
<td>188</td>
</tr>
<tr>
<td>Women</td>
<td>136</td>
<td>75</td>
<td>211</td>
</tr>
<tr>
<td>Subtotal</td>
<td>261</td>
<td>138</td>
<td>399</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21–29</td>
<td>37</td>
<td>21</td>
<td>58</td>
</tr>
<tr>
<td>30–39</td>
<td>51</td>
<td>25</td>
<td>76</td>
</tr>
<tr>
<td>40–49</td>
<td>67</td>
<td>38</td>
<td>105</td>
</tr>
<tr>
<td>50–59</td>
<td>43</td>
<td>24</td>
<td>67</td>
</tr>
<tr>
<td>60 and above</td>
<td>67</td>
<td>30</td>
<td>97</td>
</tr>
<tr>
<td>Subtotal</td>
<td>265</td>
<td>138</td>
<td>403</td>
</tr>
<tr>
<td>Drink</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red</td>
<td>156</td>
<td>47</td>
<td>203</td>
</tr>
<tr>
<td>White</td>
<td>77</td>
<td>62</td>
<td>139</td>
</tr>
<tr>
<td>Rose</td>
<td>28</td>
<td>25</td>
<td>53</td>
</tr>
<tr>
<td>Sparkling</td>
<td>6</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Subtotal</td>
<td>267</td>
<td>140</td>
<td>407</td>
</tr>
</tbody>
</table>

4. Results and discussion

The goal of the study was to further examine wine consumption information generated from a more diverse group of US wine consumers than earlier research studies by assessing the consumer’s recognition and awareness of smaller wine appellations when compared to a larger wine region. The wine label is one place where the product can differentiate itself to benefit from existing consumer awareness and present itself as an indicator of quality (Lockshin, 1997). Understanding whether wine consumers will have a greater awareness of regional designations (e.g. Sonoma County) over smaller appellations within that region (e.g. Russian River Valley) is a significant issue for wine business strategy and a competitive advantage in product and label development.
4.1 Consumer awareness

Respondents were first asked to name up to five regions worldwide that came to mind of their own accord. This was an open-ended question with no hints or reference about country, state, region, appellation, etc. Napa had the higher number of mentions with 259. Napa was followed by Sonoma (96), California (79), Bordeaux (52) and Champagne (44). This suggests that Sonoma has a respectable name recognition, but it has a long way to go to catch up with Napa (Table 2). Napa was also cited first by a majority of respondents (196), followed by California (47) and Sonoma (14). Sonoma was most frequently mentioned when respondents listed their second region of choice.

Respondents were then asked to name five regions, AVA's, or appellations in California that came to mind, again of their own accord. Most respondents could only name two. As shown in Table 3, Napa was named more often than all of the other areas combined, when looking at the grand total of 294. Sonoma came in a distant second with 111 total mentions. There was a significant decrease in mentions after Sonoma with consumers naming a variety of other locations.

It is important to note that the region of Sonoma with 111 mentions was named more frequently than any of the smaller appellations within Sonoma County, i.e. Sonoma Valley (20), Russian River (17), Alexander Valley (5) and Carneros (2). This suggests that the larger

<table>
<thead>
<tr>
<th>Region/AVA</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Napa</td>
<td>256</td>
<td>27</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>294</td>
</tr>
<tr>
<td>Sonoma</td>
<td>29</td>
<td>71</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>111</td>
</tr>
<tr>
<td>Temecula</td>
<td>3</td>
<td>7</td>
<td>11</td>
<td>0</td>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>Sonoma Valley</td>
<td>2</td>
<td>10</td>
<td>11</td>
<td>0</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Russian River Valley</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>Monterey</td>
<td>0</td>
<td>4</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>Mendocino</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>Paso Robles</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Santa Barbara</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Alexander Valley</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Carneros</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>
The geopolitical region of Sonoma has much greater name recognition than any of the appellations within Sonoma County. This finding supports previous research showing that consumers utilize region information more than appellation information when evaluating wines (Atkin & Johnson, 2010).

To validate these findings, we asked consumers to rate their awareness of Napa, Sonoma and several Sonoma County appellations on a 5-point Likert scale using poor (1) to great (5) as the endpoints. As expected, Napa had the highest mean at 3.20, then Sonoma County at 2.86. This difference was statistically significant between the two groups ($t$-test = 6.563, significance = 0.000).

$t$-Tests, focusing on the means, were again performed comparing Sonoma County to several of the appellations in Sonoma County and findings are outlined in Table 4. Significant differences in awareness between the geopolitical region and appellations were observed. The findings specific to Sonoma County versus Russian River Valley also offer support for Hypothesis 1. It is interesting to note that the appellations had more than twice as many “no opinion” responses as the more recognizable geopolitical region. Over one-third of respondents claimed no opinion concerning each of the appellations within Sonoma County. This again illustrates there is a much greater awareness for the Sonoma County region of origin than surrounding appellations.

### 4.2 Consumer traits

Next, we sought to understand whether the region and appellation awareness of consumers varied by wine consumption. For each of the regions and appellations: Sonoma County, Russian River Valley, Dry Creek Valley, Carneros and Green Valley, a one-way analysis of variance (ANOVA) was performed using the two subsamples of wine consumers, core and marginal, as the independent variable. Consistent with the findings above, both groups of wine consumers were much more aware of the region, Sonoma County, than any of its respective appellations. As hypothesized in Hypothesis 2, core wine consumers were significantly more aware of both regional and appellation information than marginal consumers. Among marginal wine consumers, there was a greater percentage drop in awareness from region to appellation than among core wine consumers. Both groups were significantly more aware of Sonoma County when compared to the appellation choices offered. The one-way ANOVA results with the means and standard deviations (which represent the dispersion of the data for that group) for both core and marginal wine consumers are given in Table 5.

The Means Plot diagram in Figure 1 illustrates the significant difference in awareness of Sonoma County and Russian River Valley by core wine consumers over marginal wine consumers. It also demonstrates that the drop-off in awareness from Sonoma County to Russian River Valley is similar for both core and marginal consumers. In fact, even marginal consumers have a greater awareness of Sonoma County with a mean of 2.37 than core consumers have of Russian River Valley with a mean of 1.78, the most highly recognized appellation in Sonoma County.

<table>
<thead>
<tr>
<th>Region/AVA</th>
<th>Mean</th>
<th>$t$-Test</th>
<th>Significance (two-tailed)</th>
<th>No opinion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonoma County (to)</td>
<td>2.86</td>
<td></td>
<td></td>
<td>14.1</td>
</tr>
<tr>
<td>Russian River Valley</td>
<td>1.47</td>
<td>17.059</td>
<td>0.000</td>
<td>35.3</td>
</tr>
<tr>
<td>Dry Creek Valley</td>
<td>1.32</td>
<td>17.557</td>
<td>0.000</td>
<td>37.3</td>
</tr>
<tr>
<td>Carneros</td>
<td>1.16</td>
<td>19.898</td>
<td>0.000</td>
<td>40.6</td>
</tr>
<tr>
<td>Green Valley</td>
<td>1.09</td>
<td>19.624</td>
<td>0.000</td>
<td>40.9</td>
</tr>
</tbody>
</table>
4.3 Wine knowledge

Self-report of a respondent’s knowledge about wine has been used to enable segmentation of the sample into groups of expertise or not (Bruwer & Johnson, 2010). The respondents were separated into two groups: experts with means greater than 4.0 of a 7-point scale and non-experts with means less than 4.0. Expert respondents indicated they were at least “somewhat knowledgeable about wine”, and demonstrated significantly more awareness of both appellation and region than non-experts. The non-expert respondents also showed a greater gap in awareness between region and appellation information.

For each of the regions and appellations: Sonoma County, Russian River Valley, Dry Creek Valley, Carneros and Green Valley, a one-way ANOVA was performed using the two subsamples of wine consumers, experts and non-experts, as the independent variable. Experts were significantly more aware of Sonoma County and the corresponding appellations over non-experts. Both expert and non-experts were also significantly more aware of Sonoma County over the appellation choices provided. The one-way ANOVA results with the means and standard deviations for both expert and non-expert wine consumers are given in Table 6. The findings offer support for Hypothesis 3. The Means Plot diagram in Figure 2 illustrates the significant difference in awareness of Sonoma County and Russian River Valley by expert consumers over non-expert consumers.
consumers. It also visually demonstrates the significance in awareness differences between Sonoma County and Russian River Valley, and that non-experts have a greater awareness of Sonoma County with a mean of 2.35 than experts have of Russian Valley with a mean of 1.90.

### 4.4 Price

Consumer perceptions about quality can be often cued by price (McCutcheon et al., 2009). When we grouped the sample according to the price they typically pay for a bottle of wine (under $15 and over $15), a similar pattern emerged with respect to awareness of both region and appellation information. The one-way ANOVA results with the means and standard deviations for both groups, wine consumers who typically pay under $15 and those who typically pay over $15, are given in Table 7. While almost 75% of the respondents pay under $15.00 a bottle, awareness of the region and appellation information is significantly greater among those who may pay over $15.00 a bottle.

Both groups were also significantly more aware of Sonoma County over the other appellations provided as choices. The Means Plot diagram in Figure 3 illustrates that the over $15 group had a significantly greater awareness of both places of origin, Sonoma County and Russian River Valley.
Table 7. Awareness by price.

<table>
<thead>
<tr>
<th>Region</th>
<th>Mean Under $15</th>
<th>SD Under $15</th>
<th>Mean Over $15</th>
<th>SD Over $15</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonoma County</td>
<td>2.73</td>
<td>1.60</td>
<td>3.25</td>
<td>1.55</td>
<td>8.383</td>
<td>0.004</td>
</tr>
<tr>
<td>Russian River Valley</td>
<td>1.27</td>
<td>1.43</td>
<td>2.05</td>
<td>1.59</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Dry Creek Valley</td>
<td>1.10</td>
<td>1.29</td>
<td>1.90</td>
<td>1.70</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Carneros</td>
<td>1.01</td>
<td>1.26</td>
<td>1.65</td>
<td>1.56</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Green Valley</td>
<td>0.88</td>
<td>1.09</td>
<td>1.68</td>
<td>1.64</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Figure 3. Awareness by price.

Valley. The Means Plot also visually demonstrates the significance in awareness differences between Sonoma County and Russian River Valley.

4.5 Characteristics of the wine

While this study did not focus on specific brands, the respondents were asked to indicate which type of wine they usually purchase and consume: red, white, rose, sparkling or fortified. There were no responses for fortified wine. Respondents who usually drink red wine showed higher awareness of the region of Sonoma County. The corresponding means of the respondents according to the type of wine they usually purchase and consume are shown in Table 8. Red wine consumers were also the largest group at 49% of the sample. Although sparkling wine drinkers were only 3.4% of the sample, they were very aware of the place of origin. In addition, it is interesting to note that consumers of sparkling wine had the greatest relative awareness of the shared appellations.

4.6 Consumer demographics

In trying to further understand gender differences and awareness, for each of the regions and appellations: Sonoma County, Russian River Valley, Dry Creek Valley, Carneros and Green Valley, one-way ANOVA was performed using the two genders, male and female, as the independent variable. In this study, males tended to possess a higher awareness of both appellation and
region information. The one-way ANOVA results with the means and standard deviations for both groups, male and female, are given in Table 9. The gender results are consistent with the trend of earlier analyses with major mean differences from region to the appellation choices provided, and offer support for Hypothesis 4.

Figure 4 illustrates a greater awareness by males for both places of origin, Sonoma County and Russian River Valley. The figure also visually demonstrates the significant difference in awareness between Sonoma County and Russian River Valley for both genders.

4.7 Label experiment

Prior research performed for the Sonoma County Grape Growers Association has shown that the “Sonoma County” designation confers an image of high-quality wines (N. Frey, personal
communication, October 2008). Results found that these wines were thought to be of consistently high quality and to contain premium grapes. Awareness of appellations (AVAs) within Sonoma County was expressed at significantly far lower levels than the region, Sonoma County, thus listing an AVA in the absence of a Sonoma County designation on the label conferred a lower consumer preference.

For the current study, a pair of labels from four AVAs within Sonoma County was presented to the respondents. One label had only the appellation listed and the other label showed both the appellation and the words “Sonoma County”. Respondents were asked to choose the label from which they would expect the higher quality wine. A chi-square test was performed to compare the label choices of the respondents. Over 80% of the respondents chose the label that contained the words “Sonoma County” regardless of the appellation provided. Table 10 shows the chi-square ($\chi^2$) and significance ($p$) values of the differences between the number of respondents and their selection of AVA or AVA plus Sonoma County.

### Table 10. AVA label comparisons.

<table>
<thead>
<tr>
<th>AVA</th>
<th>AVA + Sonoma County</th>
<th>$\chi^2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexander Valley</td>
<td>56</td>
<td>325</td>
<td>394.509</td>
</tr>
<tr>
<td>Bennett Valley</td>
<td>38</td>
<td>347</td>
<td>248.003</td>
</tr>
<tr>
<td>Knights Valley</td>
<td>59</td>
<td>316</td>
<td>357.452</td>
</tr>
<tr>
<td>Russian River Valley</td>
<td>74</td>
<td>304</td>
<td>316.083</td>
</tr>
</tbody>
</table>

**5. Implications, limitations, future research and conclusion**

This research provides a deeper understanding of the strength of regional brands. It adds to the body of knowledge on wine marketing and the development of effective wine labels. Survey results from a national sample of US wine consumers were analyzed to understand consumer use of the place-of-origin information in the wine evaluation process. The goal of this research was to answer further the question whether the wine consumer utilizes appellation or AVA information when evaluating wine quality above and beyond geopolitical regional designations, such as Napa Valley or Sonoma County.

**5.1 Managerial implications**

This study finds support for emphasizing the geopolitical region of origin identity on the label, as opposed to only AVA or appellation. Aside from the most expert and frequent consumers, appellation-only information does not really create a great deal of awareness when compared to regional information. For example, the results show that even marginal consumers have a greater awareness of the Sonoma County region than core consumers had of any of the appellations within its borders. Wineries are wise to take advantage of the equity of the larger region through regional strategies such as conjunctive labeling.

The label experiment presented here also showed that region is an important signal of quality to a vast majority of wine consumers. As wineries continue to seek sustainable competitive advantage, they will need to justify the superiority of the product. Wine is an “experience good” whose quality cannot be observed until it is consumed. A collective reputation is often established based on the region’s aggregate quality and this reputation must be protected (Winfree & McClusky, 2005). Relevance remains in Thode and Maskulka’s (1998) study, in that producers should establish superiority in the taste of their wine, superiority which equates to that corresponding region of origin, and continue to find ways to influence consumers to buy the wine at the price point.
Cooperation between wineries needs to be encouraged so that information on growing techniques and production methods can be shared.

From a product development perspective, it is important to understand the impact of Sonoma County on consumer awareness relative to the impact of the more specific but lesser known appellations within Sonoma County. The marketing benefit of placing “Sonoma County” on the label is clear from the findings in this study. There is a heightened awareness of the region over its own appellations. Sonoma County carries a positive image that exerts a halo effect on its products. It would be advantageous if wineries were to take this into account during the design phase when they create their labels. From a supply chain perspective, the regional designation can also influence who and where grapes are sourced from. Using and promoting grapes with the Sonoma County designation instead of the smaller appellation may lead to commanding a higher price on the final product. There is also more flexibility due to US content regulations.

It is essential for managers to understand what will attract the consumer’s attention during the shopping experience and subsequent purchase decision. The low awareness of appellation information by the wine consumer in the current study must not be minimalized. It may be that the appellation information is too complex to be meaningful, as only wine consumers with substantial expertise and core wine consumers possessed a stronger awareness of appellations than other wine consumers in the study. These findings provide relevance and offer credence to the Sonoma County vintners’ quest to improve the consumers’ recognition of their wines and improve the visibility and awareness of their wines through label strategies that include the wording “Sonoma County.”

5.2 Limitations

Although this study provides several new insights, it is not without its limitations. First, the study is focused upon the region of Sonoma County so the results found here may not generalize to all wine regions. Regions with different traditions and quality reputations may not exhibit the same effects shown here.

Second, the study utilizes a geographically diverse sample of wine consumers in the USA. This is a useful sample for assessing wine decision-making habits, but the readers should recognize that it is not a totally random sample. It was obtained from a subset of wine consumers willing and able to take the survey on the internet.

5.3 Future research

This research investigated the wine consumer, their characteristics and their awareness of appellation or AVA information versus regional designations when evaluating wine quality. Greater understanding of a wine consumer’s awareness and their judgments across nations might be in order. An international replication of this study would help wineries that seek to export and internationalize their products.

It will be very interesting to repeat the study with a similar national sample in several years. The conjunctive labeling may have been fully implemented by then. The effects shown in this study may have become more pronounced at that time. The data could also lead to a more direct tie to marketing theories such as the Elaboration Likelihood Model (Cacioppo & Petty, 1982) or the Heuristic Systematic Model (Bettman, Johnson, & Payne, 1991). The Elaboration Likelihood Model of persuasion could address the attitudes of consumers and has been a popular method for generating useable predictions on how to effect an attitude change. Attitude changes that result from processing issue-relevant information will be longer lasting than changes resulting from peripheral cues (Cacioppo & Petty 1982). The Heuristic Systematic Model looks
at the processing of persuasive messages as a compromise between the accuracy of judgments and
the efficiency by which judgments can be made. People may engage in careful analysis of relevant
information only to the extent necessary to achieve a sufficient level of certainty (Bettman et al.,
1991). Researchers may also find it beneficial to examine additional variables of the judgment
process, for example, by accounting for the ease and speed of judgments (Orth, Campana, &
Malkewitz, 2009).

6. Conclusion

In support of market research indicating that consumers did not really understand AVA’s (Press
Democrat, 2010), Sonoma County vintners lobbied for the initiative to have front labels of all
Sonoma County wines show both the region “Sonoma County” in addition to the sub-region des-
ignation (AVA). This research study validates the reasoning and justification of the Sonoma
County vintners. This study’s findings reinforce the sentiments of Nick Goldschmidt stated at
the neighboring Napa Valley Grapegrower’s seminar in 2011. In recognition of the region’s
power of influence he said “Be inclusive in appellations, and promote the whole Napa Valley.
Limit promotion of AVAs, Napa overall is more powerful and important” (Franson, 2011).
There is great power in regional clusters.

The dominant competitive issue today is not making good wine – it centers on the winery’s
ability to market and sell its wine effectively (McMillan, 2008). There are almost 5000 wineries
producing about 7000 brands of wine in the USA (McMillan, 2008). Those brands have to
squeeze through a distribution pipeline with half as many distributors as 10 years ago. The top
10 wineries listed in Table 11 represent 82% of domestic wine shipments. The rest – the
small- and medium-size wineries – have a tough fight on their hands (McMillan, 2008).
Knowing that the region of origin on a wine label makes a significant difference, wineries
have the ability to provide a link between perceived quality of the product and the product’s
place of origin to improve their competitive stance in the market (Thode & Maskulka, 1998).

We recognize that the selection of a wine does not occur without consideration of a number of
factors, several of which were studied here. Region of origin, frequency of consumption, consu-
mer expertise, the price of the product and the consumer’s wine-type preferences were found sig-
nificantly relevant. These findings provide wineries a much better framework to decide pricing,
packaging, advertising and merchandising strategies with greater comprehension of their
current and future consumers.

In conclusion, many small and medium sized wineries are not able to compete alongside large
wineries with their advertising budgets, so increasing the salience of the wine region they are

<table>
<thead>
<tr>
<th>Wine company</th>
<th>Annual US case sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 E&amp;J Gallo Winery</td>
<td>67,000,000</td>
</tr>
<tr>
<td>2 The Wine Group</td>
<td>56,000,000</td>
</tr>
<tr>
<td>3 Constellation Brands</td>
<td>46,000,000</td>
</tr>
<tr>
<td>4 Bronco Wine Company</td>
<td>20,000,000</td>
</tr>
<tr>
<td>5 Foster’s Wine Estates</td>
<td>18,000,000</td>
</tr>
<tr>
<td>6 Trinchero Family Estates</td>
<td>12,000,000</td>
</tr>
<tr>
<td>7 Ste. Michele Wine Estates</td>
<td>6,000,000</td>
</tr>
<tr>
<td>8 Diageo Chateau &amp; Estate Wines</td>
<td>5,700,000</td>
</tr>
<tr>
<td>9 Jackson Family Wines</td>
<td>5,000,000</td>
</tr>
<tr>
<td>10 Brown-Forman Wines</td>
<td>4,500,000</td>
</tr>
</tbody>
</table>
located in constitutes a cooperative way to establish brand salience (Ling & Lockshin, 2003). This research demonstrates promoting wine on a regional basis may be a more beneficial strategy, than featuring appellations alone.

Note

References


