

University of Massachusetts Amherst  
**ScholarWorks@UMass Amherst**

---

International CHRIE Conference-Refereed Track

2009 ICHRIE Conference

---

Jul 29th, 4:30 PM - 5:30 PM

# A Case for Selective Marketing: Identifying the Ecological Wine Tourist

Nelson Barber

*Texas Tech University, nelsonbarber@msn.com*

D. Christopher Taylor

*Eastern New Mexico University - Main Campus, dctaylor@uh.edu*

Cynthia S. Deale

*East Carolina University, cindea56@yahoo.com*

---

Barber, Nelson; Taylor, D. Christopher; and Deale, Cynthia S., "A Case for Selective Marketing: Identifying the Ecological Wine Tourist" (2009). *International CHRIE Conference-Refereed Track*. 28.  
<https://scholarworks.umass.edu/refereed/Sessions/Wednesday/28>

This Empirical Refereed Paper is brought to you for free and open access by the Hospitality & Tourism Management at ScholarWorks@UMass Amherst. It has been accepted for inclusion in International CHRIE Conference-Refereed Track by an authorized editor of ScholarWorks@UMass Amherst. For more information, please contact [scholarworks@library.umass.edu](mailto:scholarworks@library.umass.edu).

## A Case for Selective Marketing: Identifying the Ecological Wine Tourist

Barber et al.: Identifying the Ecological Wine Tourist

Nelson Barber  
Texas Tech University  
Lubbock, Texas, USA

D. Christopher Taylor  
Eastern New Mexico University  
Portales, New Mexico, USA

and

Cynthia Deale  
East Carolina University  
Greenville, North Carolina, USA

### ABSTRACT

The main resource for many tourism destinations is the natural environment. Tourists are increasingly interested in visiting unspoiled locations. Accordingly, managers are pressured to execute ecologically sustainable practices. One approach is selective marketing. The feasibility of this approach remains untested for wine and other types of tourists. This study investigated how respondents viewed wine tourism's influence on a community. As consumers' environmental knowledge increases, their attitudes change, influencing perceptions of a wine region's, environmental policies. Results suggest environmental attitudes differed, by demographics, regarding wine tourism's influence on a community, providing those involved in wine tourism ideas for further marketing efforts.

**Key Words:** Sustainable tourism, green products, wine marketing

### INTRODUCTION

Global environmental problems, including shrinking natural resources challenge the way people live. It is becoming evident that environmental consciousness has increased with consumers integrating environmental considerations into their lifestyle choices, such as basing their purchasing decisions on how well products satisfy individual needs while minimizing the negative impact on the natural environment. In some cases, consumers are willing to pay a premium for environmentally friendly products (e.g. GFK, 2007).

Sustainable consumption is based on a decision-making process which considers the consumer's social responsibility in addition to individual needs and wants (Vermeir and Verbeke, 2006). Everyday consumption is driven by convenience, habit, value for money, personal health concerns, and individual responses to social and institutional norms. One possible opportunity of incorporating environmental responsibility in wine consumerism/tourism planning is to attract consumers who are fundamentally interested in protecting the environment and consequently behave in a way that leads to a smaller ecological footprint. Ecological impacts of wine tourism are linked to farming, harvesting, wine production, as well as the specific activities and travel patterns of wine tourists. The challenge is to preserve the natural resources upon which sustainable wine tourism depends (Poitras and Getz, 2006). Yuan, Morrison, Cai and Linton (2008) suggested that for the wine industry, tourism is a way to develop relationships with consumers, while Getz (2000) argued that wine tourism must not just consider the winery or wine region, but the consumer and sustainable consumption.

Studies have focused on the complexity of consumer behavior and environmental knowledge and how attitudes can influence such behavior (e.g. Frick, Kaiser and Wilson, 2004; Zaichkowsky, 1985). Krarup and Russell (2005, pp 58) stated strong attitudes regarding a social issue and a product category, such as a travel destination, can predict behavior, and in terms of the environment, a direct relationship between attitude and behavior was found with attitude as a predictor of willingness to purchase or travel. However, to date no studies appear to consider the relationship between consumer involvement and their attitudes about the environmental impact of the product, such as a wine region. Therefore, this study attempts to segment wine consumers by gender, region, and generation in order to determine how different environment attitudes, knowledge and involvement can be used to create selective advertising and marketing strategies, thus helping the wine industry in particular, and the hospitality industry in general.

## LITERATURE REVIEW

*International CHRIE Conference-Refereed Track, Event 28 [2009]*

### *Environmental Tourism*

Tourism planners increasingly have to take environmental issues into account. A large proportion of typical vacation activities are directly dependent on the natural resources at a destination. The effects of global environmental changes are already visible and more dramatic changes, are predicted and expected to have major impacts on a range of tourism destinations (Dolnicar, 2004). Yet many who manage hospitality and tourism properties do not view themselves as major contributors to environmental degradation (Kazim, 2007). As tourists and the tourism industry become more aware of tourism's impact on global climate change, more attention is being given to the impact on the environment. Recent developments include "green" ecotourism resorts and lodging, even wine regions are beginning to consider their environmental impact (e.g. Baughman, Brown, Brummet, Dramko, Goldstein and Hooper, 2000; Marshall, Corano and Murray, 2005). This has motivated destination managers towards attracting consumers who are intrinsically interested in protecting the environment and consequently behave in ways that lead to a smaller ecological footprint. To attract environmentally oriented, conservation-minded tourists, Inskip (1991) has reported that selective marketing techniques can be used.

### *Wine Tourism*

Sustainable development and marketing principles are now being applied to tourism in many settings, although there is a need to make them relevant to specific forms of tourism and related niche markets such as wine tourism. Wine tourism has been defined in terms of activities and motives, such as visitation to vineyards, wineries, wine festivals and wine shows where wine tasting and experiencing the attributes of a wine region are the prime motivating factors for visitors (Hall and Macionis, 1998), and more comprehensively as a combination of consumer behavior, a destination development strategy, and a marketing opportunity for the wine industry (Getz, 2000). Yet, the environmental performance of the wine industry does not receive as much media attention as industries often characterized as 'dirty', yet this industry faces a number of serious environmental issues. These issues include the application of toxic pesticides, herbicides and fertilizer, the use of scarce water supplies, the creation of contaminated wastewater run-off, organic wastes, and the consumption of non-hazardous packaging materials (Marshall, et al., 2005).

### *Environmentally Conscious Consumers*

For organizations to position "green" products, services, and destinations, or communicate their environmental efforts to consumers that are likely to be concerned about environmental issues, segmentation of the environmentally conscious consumer needs to be identified. It is useful to consider how a 'true' environmental tourist might be defined. That is, what are the behavioral attributes that distinguish the consumption of environmental products and services from other forms of tourist behavior (Sharpley, 2006). A variety of segmentation variables have been suggested. These variables are: socio-demographics, such as gender and age (e.g. Kollmuss and Agyeman, 2006); personality measures, such as ideological expressiveness (e.g. Fraj and Martinez, 2006); attitudes, such as, attitudes toward pollution; and consumption patterns of ecologically responsible buying (e.g. Dolnicar, 2004), and evidence illustrates, however, there is little value in the use of socio-demographic characteristics alone for profiling environmentally-conscious consumers (e.g. Dolnicar, 2004; Fraj and Martinez, 2006; Torgler, Garcia-Valinas and Macintyre, 2008).

### *Personality and Demographic Variables*

*Environmental Involvement (Concern)* - Involvement has been defined as the relevance and importance a product has to consumers and their purchase decision (e.g. Vermeir and Verbeke, 2006; Zaichkowsky, 1985) and can be considered as a continuum covering a wide range of cognitive and behavioral processes, and depending on their psychological stimuli, can be evoked differently. Thus, depending on the level of involvement, one would expect it to influence attitudes and behaviors associated with purchasing. Recently researchers have suggest involvement is the extent to which the consumer views the product itself, purchasing a product, and the purchase decision as a central, meaningful and engaging activity in their life (Barber, 2008; Kolyesnikova, Dodd and Wilcox (forthcoming), 2009; Yuan, So, and Chakravarty ; 2005).

*Environmental Knowledge* - An important component of environmental conscious consumer behavior is the increased awareness of the need for "green" information sources, which has been shown to influence consumer purchasing decisions. Martin and Simintiras (1994) found that the ability of consumers to answer objective questions on environmental issues correctly did not correlate with subjective environmental knowledge and purchase

intention. Research has shown that what a consumer thinks they know about a product (Barber, 2008) or the environment (Amyx, DeJong, Lin, Chakraborty and Wiener, 1994) was a better predictor of ecological purchasing intentions than what they actually knew. Therefore, in this study, a consumer's subjective knowledge was used for the segmentation analysis.

*Environmental Attitude* - One function of knowledge is to help maintain strong attitudes, those that are resistant to change and persistent over time. Most analyses of attitudes strength recognize that knowledge contributes to a high attitude level. Eagly and Chaiken (1993) suggested strong attitudes are often thought to be constructed on an extensive, well organized knowledge framework that provides an informational basis for reactions to the "attitude object." When considering the environment, increased knowledge is assumed to change environmental attitudes, and both environmental knowledge and attitudes are assumed to influence environmental behavior (Arcury, 1990). Bradley, Waliczek and Zajicek (1999), found significant correlations between participant's attitudes and knowledge, stating that the basis for many environmental problems and issues is irresponsible environmental behavior, and one of the most important influences on this behavior is attitude.

*Generational Effect* - There are demonstrable differences between age groups, particularly when grouped by generation cohorts. Howell and Laska (1992) found that younger people are more concerned about environmental problems than older people. Major consumer products companies consider the *Millennial Generation*, born between 1978 and 2000 a segment with very high buying power (Barber, 2008; Nowak, Thach and Olsen, 2006), strong support for social responsibility and high levels of concern about the world, the environment, poverty and global issues in general (Tulgan and Martin, 2001). Members of the *Baby Boomer Generation* were born between 1946 and 1964. The 1960s is the decade that defined the boomers, with music, events, and social changes leaving a permanent impression on them. Many voiced strong opinions about the need for clean air, clean water, a cleaner environment and making the earth a cleaner and safer place (Lee, Mathur, Moschis and Strautman, 2000).

*Gender Effect* - The emergence of new conceptualizations of gender differences has led to a stream of research, where investigators found that gender identity can be a predictor of certain consumer attitudes (Chang, 2006). However, the value of the gender identity contribution to consumer behavior has been questioned; with significant gender identity findings in consumer research rare (Palan, 2001). When comparing the effects of biological sex versus gender identity, in many cases biological sex was found to be far more significant with respect to predicting relationships and attitudes than was gender identity, making biological sex a more practical segmentation variable (Palan, 2001). There is a universal tendency socialize girls toward nurturance and responsibility; while boys are socialized toward achievement and self-reliance. These theoretical explanations of gender differences when considering environmental issues lead to the expectation that women are more concerned than men (Henderson, 1996). Hunter, Hatch and Johnson (2004) and Zelezny, Chua and Aldrich (2000) found women hold higher environmental values than men.

## METHODOLOGY

### *Design of the study*

This study considered the general adult population of the United States. The subjects were randomly selected from an e-mail data base maintained by InfoUSA, Inc (<http://www.infousa.com>). The only required profile was that potential recipients were over 21 years of age. InfoUSA selected 10,000 e-mails which were the maximum number the research study could afford. In December 2008, a URL link provided to InfoUSA was along with a cover letter introducing the study. If any respondent was under the age of 21, he or she was eliminated from the data analysis. After four weeks, a follow-up e-mail was sent by Info USA with the URL link.

### *Measures*

*Environmental involvement* – Following the work of Zaichkowsky (1985), this construct was measured by modifying their product involvement questions to address the environment. Indicators of environmental involvement were "unimportant /important; means nothing to me/means a lot to me; insignificant/significant; does not matter to me/matters to me," each assessed by a seven-point bipolar scale.

*Environmental subjective knowledge* - This construct measured respondents' perceived environmental knowledge. The instrument construction followed subjective environmental knowledge questions developed in previous studies by Amyx et al. (1994), Dodd, Laverie, Wilcox, and Duhan (2005), and Barber (2008). Three

questions measured self-assessed environmental knowledge, each anchored between *very little* (1) and *very much* (7). An example of self-reported assessment of product knowledge is “How much do you feel you know about environmental issues?”

*Environmental Attitude* - Following work by Vermeir and Verbeke (2006), Milfont and Duckitt (2004), and Dunlap, Van Liere, Mertig, and Jones, 2000, the attitude inventory consisted of ten questions rated on a Likert-type scale. The questions, anchored by 1 (strongly disagree) and 7 (strongly agree), measured the overall relationship between Wine production and tourism with the environment. An example of these indicators is “Wine tourism impacts surrounding communities located near the wine region.”

Four new variables were created for this study. First a new variable for attitude was created by categorizing the respondents as “strong attitudes”, “moderate” and “weak attitudes”. The second variable was subjective environmental knowledge. This variable was categorized as “high subjective knowledge”, “some subjective knowledge” and “low subjective knowledge”. These two variable followed work by Barber (2008) and Dodd, et al. (2005). The third variable was environmental involvement. This followed the study by Yuan et al. (2005), which used the overall mean and distribution, derived from data collected from their studies and classified the respondents into low or high involvement. The overall mean on the sample was found to be ( $M = 5.47$ ,  $SD = .95$ ) with a coefficient alpha in the reliability test of 0.90, indicating good internal consistency of the items. Respondents below 5.47 (excluding 5.47) were defined as the low involved ( $n=131$ ) and those scoring above were considered high involved ( $n=184$ ), or those with strong involvement with environmental issues. Finally, the fourth variable was the generational determined by grouping respondents by birth year as Millennial or Baby Boomers.

Following Churchill (2004), a pilot study was conducted during December 2008 by e-mailing the survey URL to 60 individuals in six states across the United States. Cronbach’s alpha coefficients were used for the item scales ranging from a low of .70 for environmental attitude to a high of .98 for environmental behavior. Based upon these results, it was decided a second pilot test was not necessary. An analysis of the pilot respondents’ demographics did not reveal any unusual characteristics that would require modification of the survey.

#### *Data Analysis*

Statistical analysis was computed using the Windows versions of Statistical Package for Social Sciences (SPSS 15.0). Multivariate analysis of variance (“MANOVA”) was used to analyze the main and interaction effects of how respondents beliefs about wine tourism’s impact on a community (four dependent variable) is influenced by the six independent categorical variables gender, generation, attitude, involvement, subjective knowledge, and region.

When calculating MANOVA a multivariate  $F$  value (Wilks'  $\lambda$ ) is reported and considered the most appropriate for this factorial design (Hair, Anderson, Tatham and Black, 1998). If MANOVA is significant, follow-up tests are performed. This is accomplished by conducting multiple ANOVAs, one for each dependent variable, and to control for type I error by using the Bonferroni inequality approach (Hair et al., 1998). Post hoc pairwise comparison testing was performed if any of the ANOVAs were significant using the Scheffé method which tends to give narrower confidence limits and is therefore the preferred method and the most conservative with respect to type I errors (Hair et al., 1998).

## **RESULTS**

#### *Descriptive statistics*

There were 315 responses to the survey. Based upon the historical open rate of blast e-mails by InfoUSA and prior experience with questionnaires of this length (20 minutes), this rate seemed reasonable. Forth-eight percent of the respondents were male ( $n=150$ ) and 52% were female ( $n=165$ ). The average age of respondents was 43 years. Respondents had high levels of education with 65% of the sample having earned at least a four-year college degree. Thirty percent of the respondents had annual household income less than \$60,000, with 21% over \$120,000. Overall, the socio-demographic background of all respondents (middle-aged, educated, with higher incomes) mirrored the profile of wine consumers in general (Motto Kryla and Fisher, 2000), and were similar to data collected in a survey conducted by Barber (2008).

Fourteen percent of the respondents were from the Northeastern region of the United States, with 43% from the Southern and 28% from the Western States. Fifty-seven percent of the respondents were Baby Boomers and

20% were Millennial. The average number of years respondents reported consuming wine was 20. The average number of bottles (750 ml) purchased per respondent was 9 per month, with the average amount spent during this same period \$178, or \$20 per bottle. When asked how much more they would be willing to pay for tasting fees at a winery to be sure that the winery would have the least possible negative environmental effects, 27% of the respondents said they would not be willing to pay more, while 58% said they would be willing to pay 30% more. Finally, when asked if they would be willing to pay an environmental travel fee to protect a wine region, 30% of the respondents said they would not be willing to pay such a fee, while 57% said they would.

Interestingly, there was a significant difference between males and females when asked how much more they would be willing to pay for wine to be sure that it has the least possible negative environmental impact  $t(235) = -7.99, p < .01$ . Females stated they would be willing to pay 77% more compared to males at 50%, confirming the work by Hunter et al. (2004) and Zelezny et al. (2000) that females are more environmentally sensitive and concerned.

#### *Environmental Subjective Knowledge, Involvement, and Attitude*

For subjective knowledge, 67(22%) reported low environmental knowledge, 183 (58%) some environmental knowledge, and 65 (21%) high environmental knowledge. Respondents overall reported moderate levels of subjective environmental knowledge ( $M = 4.6, SD = 1.1$ ), indicating they considered themselves somewhat knowledgeable about environmental issues. These results were similar to a study by and Amyx et al. (1994), where respondents reported moderate subjective knowledge. Interestingly, they considered themselves more knowledgeable than friends ( $M = 5.1, SD = 1.2$ ) and much less so than environmental experts ( $M = 3.8, SD = 1.1$ ). There were no differences in the overall response for males versus females (both  $M = 4.6$ ); however, males did consider themselves much more knowledgeable when compared to friends ( $M = 5.6, SD = .9$ ) than did females ( $M = 4.7, SD = 1.2$ ).

As for environmental attitudes, 57 (19%) reported weak attitudes, 203 (63%) moderate attitudes, and 55 (18%) reported strong attitudes. Respondents had a strong overall attitude ( $M=5.5, SD = 1.4$ ) that there will not be enough water to meet demands, with strong feelings that the balance of nature is very delicate and easily upset ( $M=5.2, SD = 1.4$ ). Females overall had stronger attitudes toward environmental issues ( $M = 5.1, SD = .9$ ) compared to males ( $M = 4.7, SD = .9$ ), with females considering mankind is severely abusing the environment ( $M = 5.6, SD = 1.2$ ) more so than males ( $M = 4.3, SD = 1.9$ ). The results were expected, based on Hunter et al. (2004).

There were generational differences in attitude. Overall, Millennials had a strong attitude toward environmental issues ( $M = 5.5, SD = .9$ ), followed by Baby Boomers ( $M = 5.0, SD = .8$ ). Millennials felt very strongly that the balance of nature is very delicate and easily upset ( $M = 5.5, SD = 1.1$ ). This confirmed that younger people were concerned with environmental issues (Howell and Laska, (1992), as well as Baby Boomers (Lee et al., 2000). When considering the region of the United States where respondents lived, overall environmental attitude was strongest in the Southern region ( $M = 5.1, SD = .9$ ), followed by the Western region ( $M = 5.0, SD = .8$ ). The Southern region were concerned that there will not be enough water to meet demands ( $M = 5.2, SD = 1.4$ ), and the Western region found humans are severely abusing the environment ( $M = 5.7, SD = 1.2$ ).

#### *Wine Tourism*

When respondents were asked how wineries and wine tourism influenced the environment, respondents strongly believed that wine tourism brings new income to a community and improves its economy ( $M = 6.1, SD = .9$ ), at the same time respondents also believed strongly that wine tourism must protect (“Protect”) the natural and cultural environment ( $M = 5.3, SD = .9$ ) and that proper wine tourism development (“Development”) requires that wildlife and natural habitats be protected at all times ( $M = 5.1, SD = 1.0$ ).

#### *Multivariate Analysis of Variance*

The results of the MANOVA testing indicated there were significant differences found on the dependent measures among gender, (Wilks's  $\Lambda = .944, F(4, 236) = 3.49, p < .01$ ), generations, (Wilks's  $\Lambda = .719, F(12, 624) = 6.89, p < .00$ ), region, (Wilks's  $\Lambda = .875, F(12, 624) = 15.92, p < .00$ ), and attitude on the dependent measures, (Wilks's  $\Lambda = .891, F(8, 472) = 3.52, p < .00$ ). Analyses of variances (ANOVA) on each dependent variable were conducted as follow-up tests to the MANOVA, using the Bonferroni inequality approach.

Table 1. ANOVA Results

Independent and Dependent Variables	Degrees of Freedom	Mean Square Between-Groups	Mean Squares Within Groups	F Statistic	Significance of F
<i>International CHRIE Conference-Refereed Track, Event 28 [2009]</i>					
Gender					
Protect	1	45.39	1.79	25.38	.00*
Development	1	95.26	1.85	51.52	.00*
Generations					
Protect	3	14.23	1.81	7.87	.00*
Development	3	9560	2.08	4.63	.04**
Regions					
Protect	3	5.79	1.89	3.06	.03***
Development	3	5.64	2.11	2.67	.04***
Environmental Attitudes					
Protect	2	63.19	1.54	41.18	.00*
Development	2	58.79	1.78	32.97	.00*

Note: = The dependent variable "Protect" is from the question "Wine tourism must protect the natural and cultural environment, while the dependent variable "Development" is from the question "Proper wine tourism development requires that wildlife and natural habitats be protected at all times". \* =  $p < .00$ . \*\* =  $p < .01$ . \*\*\* =  $p < .05$ .

For the ANOVA on the gender, generation, region, and attitude independent variables, two dependent variables were significant (see Table 1). Post hoc analyses to the univariate ANOVA for the "Protect" and "Development" scores consisted of conducting pairwise comparisons to find which independent variable; gender, generation, region, and attitude, most strongly influenced the dependent variables. Each pairwise comparison was tested using the Scheffé method (see Table 2).

Table 2. Post Hoc Results

Independent Variables	Dependent Variable	Mean	Standard Deviation	Mean Difference
Gender				
Male	Protect	4.8	1.4	-.760*
Female		5.6	1.5	
Male	Development	4.5	1.5	-1.01*
Female		5.6	1.2	
Generation				
Baby Boomers	Protect	5.5	1.3	.948*
Millennial		4.5	.9	
Baby Boomers	Development	5.3	1.3	.799*
Millennial		4.5	1.1	
Region				
Midwestern	Protect	5.6	1.2	.610**
Southern		4.8	1.2	
Midwestern	Development	5.7	1.1	.717***
Western		4.9	1.5	
Environmental Attitude				
High	Protect	5.7	1.4	1.831*
Low		3.9	1.5	
High	Development	5.6	1.6	1.794*
Low		3.8	1.5	

Note = \* = The mean difference is significant at the  $P < .00$  level. \*\* = The mean difference is significant at the  $p < .02$  level. \*\*\* = The mean difference is significant at the  $p < .05$  level.

*Gender* For "Development", there is a significant difference between males and females, with female respondents having stronger beliefs that proper wine tourism development requires that wildlife and natural habitats be protected at all times ( $M = 5.6$ ,  $SD = 1.2$ ) compared to males ( $M = 4.5$ ,  $SD = 1.5$ ), with the mean differences = -1.01,  $p < .00$ .

*Generation* – For "Protect", there is a significant difference between Millennials and Baby Boomers. Baby Boomers reported stronger beliefs that wine tourism must protect the natural and cultural environment ( $M = 5.5$ ,  $SD = 1.3$ ) than Millennials ( $M = 4.5$ ,  $SD = .9$ ), with the mean differences = .948,  $p < .00$ .

*Region* - For "Development" there is a significant difference between Midwesterners and Westerners, with Midwestern respondents having stronger beliefs that wine tourism must protect the natural and cultural environment ( $M = 5.7, SD = 1.1$ ) compared to males ( $M = 4.9, SD = 1.5$ ), with the mean differences = .717,  $p < .05$ .

*Environmental Attitude* - For "Protect", there is a significant difference between those respondents with "High" environmental involvement and those with "low". "High" involvement respondents reported stronger beliefs that wine tourism must protect the natural and cultural environment ( $M = 5.7, SD = 1.6$ ) than "Low" involved ( $M = 3.9, SD = 1.5$ ), with the mean differences = 1.831,  $p < .00$ .

*Interaction* - Of greater interest are the results of the MANOVA interaction testing. Only the interaction of generation, region and environmental attitudes with (Wilks's  $\Lambda = .837, F(8, 536) = 6.24, p < .01$ ) was significant. Post hoc analysis of the interaction results, indicated that Baby Boomers from the Northeast with low environmental involvement reported significantly stronger beliefs that wine tourism must protect the natural and cultural environment ( $M = 7.0, SD = 1.0$ ) than did Baby Boomers from the Southern region with high environmental involvement ( $M = 5.0, SD = .9$ ). At the same time, Millennial from the Midwestern region with high environmental involvement reported significantly stronger beliefs that wine tourism must protect the natural and cultural environment ( $M = 7.0, SD = .8$ ) than did Millennial from the Western region with low environmental involvement ( $M = 3.7, SD = .9$ ).

## DISCUSSION

This study contributes to sustainable tourism research by investigating the usefulness of using selective marketing techniques in sustainable destination management. Selective marketing has been proposed by a number of authors in the past but its feasibility has never been empirically investigated. The fundamental idea of the selective marketing approach is to attract a certain kind of tourists to the destination, those who behave in an environmentally friendly manner.

The results of this study supported these concepts. The multivariate analysis indicated there were significant differences in respondents' beliefs about how wineries and wine tourism influenced a community when gender, age (generation), region of the United States, and environmental attitude were considered. Gender differences were found with female respondents having stronger beliefs that proper wine tourism development requires that wildlife and natural habitats be protected at all times. This confirms results from the studies by Arcury (1990) and Torgler et al. (2008) where they found that gender was an important determinant of environmental attitudes and behavior, with Davidson and Freudenburg (1996) indicating that females tend to exhibit both higher concern and participate more frequently in green behavior.

There were generational differences with Baby Boomers reporting stronger beliefs when compared to Millennials, that proper wine tourism development requires wildlife and natural habitats be protected at all times and that wine tourism must protect the natural and cultural environment. This result was expected as found by Lee et al. (2000), many Baby Boomers have voiced strong opinions about the need for clean air, clean water, a cleaner environment and making the earth a cleaner and safer place. However, this result is contrary to that found by Tulgan and Martin (2001), where Millennial were more environmentally concerned.

The interesting results of this study came from the interaction testing. The generation, region, and environmental attitude interaction resulted in Baby Boomers from the Northeast with weak attitudes reporting significantly stronger beliefs that wine tourism must protect the natural and cultural environment than did Baby Boomers from the Southern region with strong environmental attitudes. This was unexpected because results for overall environmental attitude were strongest in the Southern region, while the Millennial generation reported the strongest positive overall environmental attitude.

## MANAGERIAL IMPLICATIONS

Hospitality marketers, and wine tourism destinations specifically, need to recognize marketing as the management of change. This can be accomplished through a sound selective marketing strategy which is considered as an integral part of overall marketing. In addition to this, hospitality marketing researchers needs to pay more attention to social and technological trend analysis in relation to the historical background of sales and purchase behavior. By doing this, they can offer early warning signals, especially with the changes in the market environment as well as understanding sensitive strategies to acknowledge the changes.



The authors of this study found that environmental attitudes differed according to consumer demographics regarding their views of the impact wine tourism has on a community, and these findings may provide those involved in wine tourism with ideas for further marketing efforts. For example, it is noted that residency has an influence on the strength of a respondents environmental attitudes. The logical implications for marketing managers suggest that for the target customer of those regions, marketers should appeal to attainment of a collective environmental goal. What this means to the wine industry specifically, or other service industries in general, is that a different focus is needed in marketing, with a media approach directed toward different market segments. The idea of a “one advertisement” approach is not going to capture the different regional or generational markets nor begin to expand the wine industry toward more environmentally friendly consumers.

Environmentally conscious vintners and the implementation of “green” business practices are not new in the U.S. wine business, but exploring how to further segment the wine tourism market to address the focus on the environment more personally to meet the demands of the consumer may still be emerging in the industry. Those involved in wine production and wine tourism might take a closer look at who their current customers are and who they would like their future customers to be with regard to gender, region, and environmental attitudes and position their product so that it meets the consumer demands. This may mean, for example, demonstrating current and future protection of wildlife and natural areas at the winery to benefit the winery not just in terms of profit, but with regard to its’ triple bottom line of financial, social, and environmental sustainability.

#### LIMITATIONS AND FUTURE RESEARCH

There were limitations related to the sample used in the study, although an attempt was made to obtain the sample randomly from the population of the United States via a blast e-mail. While the sample’s demographics mirrored those of wine tourists identified through research, the sample may, in fact, have been composed of people who had a tendency to complete online surveys and that group may differ in terms of its characteristics from people interested in wine tourism and the population in general. Further research might explore the study’s topic in more depth and via different sampling methods. For example, it would be helpful to survey tourists who have already made the decision to visit a wine region.

#### REFERENCES

- Amyx, D., DeJong, P, Lin, X., Chakraborty, G. and Wiener, L. (1994). Influencers of purchase intentions for ecologically safe products: An exploratory study, *Marketing Theory and Applications, Proceedings on the 1994 AMA Winter Educators Conference*, 341-347.
- Arcury, T. (1990). Environmental Attitude and Environmental Knowledge. *Human Organization*, 49(4), 300-304.
- Barber, N. (2008). *How self-confidence and knowledge effects the sources of information selected during purchase situations*. Published dissertation, Texas Tech University, Lubbock, Texas.
- Bradley, J., Waliczek, T. and Zajicek, J. (1999). Relationship between Environmental Knowledge and Environmental Attitude of High School Students. *Journal of Environmental Education*, 30, 17 – 22.
- Chang, C. (2006). The influence of masculinity and femininity in different advertising processing contexts: An accessibility perspective. *Sex Roles*, 55 (5), 345-356.
- Churchill, G. A. (2004), *Basic marketing research*, (5th ed.). South-Western, Mason: OH.
- Dodd, T., Laverie, D., Wilcox, J., and Duhan, D. (2005). Differential effects of experience, subjective knowledge, and objective knowledge on sources of information used in consumer wine purchasing. *Journal of Hospitality and Tourism Research*, 29(1), 3-19.
- Dolnicar, S. (2004). Insight into sustainable tourists in Austria: Data based a priori segmentation approach. *Journal of Sustainable Tourism*, 12(3), 209–218.
- Eagly, A. and Chaiken, S. (1993). *The psychology of attitudes*, New York:Harcourt Brace.
- Frick, J., Kaiser, F. and Wilson, M. (2004). Environmental knowledge and conservation behavior: Exploring prevalence and structure in a representative sample. *Personality and Individual Differences*, 37(8), 1597-1613.
- Getz, D. (2000) *Explore Wine Tourism: Management, Development and Destinations*. New York: Cognizant.
- Hair, J., Anderson, R., Tatham, R. and Black, W. (1998). *Multivariate data analysis*. (5<sup>th</sup> ed.). Upper Saddle River, NJ: Prentice Hall.
- Hall, M. and Macionis, N. (1998) Wine tourism in Australia and New Zealand. In R. Butler, M. Hall and J. Jenkins (Eds) *Tourism and Recreation in Rural Areas* (pp. 197–224). Chichester: Wiley.
- <https://scholarworks.umass.edu/refereed/Sessions/Wednesday/28>

- Henderson, K. A. (1996). One Size Doesn't Fit All: The Meanings of Women's Leisure. *Journal of Leisure Research*, 28(3), 139-154.
- Howell, S.E. and Laska, L.B. (1992). The changing face of the environmental coalition: a research note, *Environment and Behavior*, 24, 134-144
- Hunter, L, Hatch, A. and Johnson, A. (2004). Cross-national gender variation in environmental behaviors. *Social Science Quarterly*, 85:677-694
- Inskeep, E. (1991). *Tourism planning: An integrated and sustainable development approach*. New York: Wiley
- Kazim, A. (2007). Towards a wider adoption of environmental responsibility in the hotel sector. *International Journal of Hotel & Tourism Administration*, 8(2), 25-49.
- Kolyesnikova, N., Dodd, T.H., and Wilcox, J.B. (Forthcoming 2009). Gender differences as antecedents to reciprocal consumer behavior. *Journal of Consumer Marketing*, 26 (Winter/Spring)
- Krarup, S. and Russell, C. (2005). *Environment, information and consumer behavior*. Edward Elgar Publishing Limited: Glos, UK.
- Lee, E., Mathur, A. Moschis, G. and Strautman, J. (2000). *The Maturing Marketplace: Buying Habits of Baby Boomers and Their Parents*. Quorum Books: Westport, CT.
- Marshall, R., Cordano, M. and Silverman, M. (2005). Exploring individual and institutional drivers of proactive environmentalism in the US wine industry. *Business Strategy and the Environment*, 14, 92-109.
- Martin, B. and Simmintiras, A. (1994). Determination of green purchase behavior: A review of the literature and an agenda for further research, in *Marketing: Unity and Diversity, Proceedings of the 1994 Marketing Educators Group Conference*, 628\*637.
- Motto Kryla and Fisher, L. (2000), *U.S. wine demographics report*. The Wine Business Center: St. Helena, CA.
- Nowak, L., Thach, L. and Olsen, J. (2006). Wowing the Millennials creating brand equity in the wine industry. *Journal of Product & Brand Management*. 15(5). 316-323.
- Ottman, J.A. (1992), *Green Marketing: Challenges and Opportunities for the New Marketing Age*, NTC Business Books, Lincolnwood, IL.
- Palan, K. M. (2001), "Gender identity in consumer behavior research: A literature review and research agenda", *Academy of Marketing Science Review*, 10, 1-31.
- Torgler, B., Garcia-Valinas, M. and Macintyre, A. (2008). Differences in preference towards the environment: The impact of a gender, age and parental effect. Discussion paper #221, QUT School of Economics and Finance, 1 – 37.
- Tulgan, B., Martin, C.A. (2001), *Managing Generation Y: Global Citizens Born in the Late Seventies and Early Eighties*, HRD Press, Amherst, MA.
- Yuan, J., So, SI. and Chakravarty, S. (2005) To Wine or Not to Wine: Profiling a Wine Enthusiast for a Successful List. *Journal of Nutrition in recipe & Menu Development*. 3(3/4) 63-79
- Zaichkowsky, J. L. (1985). Measuring the involvement construct. *Journal of Consumer Research*, 12, 341-352.
- Zelezny, L.C., Chua, P.P. and Aldrich, C., (2000). Elaborating on gender differences in environmentalism. *Journal of Social Issues*, 56: 443-457.