# WHAT DOES 'SUSTAINABLE WINE' MEAN TO CONSUMERS? AN EXPLORATORY STUDY IN FRANCE AND ITALY

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Abstract

 $\circ Purpose$ 

The study sought to investigate consumers' awareness of different types of sustainable wine and whether wine involvement and a propensity towards ethically minded behaviours affect consumers' perceptions. The study undertook a cross-country analysis of France and Italy.

•Design/methodology/approach

The study used a free-choice approach to measure consumers' perceptions of sustainable wine. Data were collected using an online consumer survey.

•Findings

Perceptions in the top of consumers' mind included respect for the environment, specific types of products and a low use of chemical products. French respondents focused on the social and economic effects of sustainable practices, while Italian respondents highlighted the benefits of the positive effects of sustainable wine on personal health. The perceptual space compared the following dimensions: different types of sustainable wine to conventional wine; health and sensory benefits to ethics; and wine with no added sulphites to other types of sustainable wine. Product involvement played a key role in determining consumers' ability to discriminate between sustainable wines. To a lesser extent, consumers' attitudes towards ethically minded behaviours appeared to explain differences in consumers' perceptions.

•Practical implications

The results of this study provide wineries with insights into consumers' perceptions of seven different types of wine. Further, the results show that marketers need to provide clear evidence of the positive effects of sustainable practices. The results could also be used to support wineries' marketing strategies so that they link product innovativeness, health concerns and ethical values with wine involvement and ethically minded behaviours in consumers' perceptions.

Key words: sustainable wine, pick-any approach, ethically minded consumer behaviours, wine involvement, old wine world countries.

#### 1. INTRODUCTION

There is already an extensive body of research on sustainable food and organic food consumption (Aertsens et al., 2009; Reisch et al., 2013). However, thus far, only a few studies have sought to understand the underlying motivations of consumers and the relationship between product evaluations and ethical and environmental consciousness. Consequently, more research is needed on the relationship between sustainability concerns and sustainable product choices. Such research would provide winemakers, marketers and public institutions with new insights into the most effective policy and communication actions that aim to promote sustainable choices.

Wine is essentially an agricultural product; thus, sustainability plays a very significant role in the wine business. One of the many problems that the wine industry has to address is the environmental consequence of making wine (Szolnoki, 2013). Today, rising energy prices, water scarcity, concerns about chemical exposure and climate change threaten the wine industry (Gilinsky et al., 2016).

Research on organic wine in France has shown that the organic market share is lower for wine than that of other food sectors (Agence Bio, 2016). Further, consumers, winemakers and wine companies remain confused about the meaning of terms such as sustainable winemaking and organic or biodynamic wine. Sustainable grape growing and wine making constitute a much broader concept than organic, biodynamic or integrated pest/crop management (Szolnoki, 2013). This study sought to offer new insights into the sustainable wine market by exploring the concept of sustainability and consumers' perceptions of sustainable wine. Specifically, this study aimed to investigate whether wine involvement and a propensity towards ecologically and ethically minded behaviours affects consumers' perceptions.

### 2. LITERATURE REVIEW

In the wine sector, several recent studies have shown that consumers are generally interested in wines that are environmentally friendly or socially responsible (Remaud and Sirieix, 2012; Ginon et al., 2014; Pomarici and Vecchio, 2014). However, compared to other industries. consumers hold the perception that the wine industry is already 'green'; a perception that creates one of the biggest barriers to the success of the sustainable wine sector (Sogari et al., 2016). Wine is generally perceived to be a 'natural' product; thus, compared to other 'natural' food products, claims of wine being organic have failed to create an important differentiation element (Remaud and Sirieix, 2012; Sogari et al., 2016). Indeed, the results of a study conducted in Canada (Rojas-Méndez et al., 2015) did not suggest that people highly concerned about the environment were more likely to have positive attitudes towards organic wine. A study conducted by Ginon et al. (2014) evaluated French consumers' perceptions of several logos that indicated environmentally sustainable production. The study showed that participants found the logos claiming environmental sustainability to be confusing and partially responsible for a reduction in participants' perceptions about the credibility of sustainable production practices. Moreover, consumers did not recognise any of the logos referring to sustainable wine practices. Many studies have linked product involvement to wine purchasing behaviours. Previous studies have found contradictory results on the relationship between involvement in wine and organic wine consumption. Rojas-Méndez et al. (2015) found that hedonism not only explains the consumption of wine in general, but also explains why consumers involved in wine do not

consume more organic wine. More generally, it has been found that consumers do not associate good taste with eco-certification.

Extensive research has been conducted analysing consumers' attitudes towards ecological and ethical behaviours and the issue of the attitude-behaviour gap (Sudbury-Riley and Kohlbacher, 2016). Sogari et al. (2016) found that valuing environmental protection does not affect the importance of sustainability during wine purchases; however, the belief that sustainable products provide benefits to the environment influences wine consumers' attitudes and purchases.

## 3. OBJECTIVES AND RESEARCH QUESTIONS

The study had a number of objectives. First, it sought to explore consumers' awareness of the existence of wines that claim sustainable practices, and consumers' perceptions of the concept of sustainability and the characteristics of sustainable wine. Second, it examined consumers' perceptions of sustainable wine and the product attributes associated with different types of sustainable wine. Third, it investigated the relationship between consumers' concerns for sustainability, their wine involvement and the product attributes associated with sustainable wine.

The study adopted a cross-country analysis, comparing results from France and Italy. These countries have in common a long tradition in wine consumption and production; French and Italian consumers show involvement with wine and sustainable consciousness has only recently begun to increase in the wine industry.

The study sought to answer to the following research questions: (i) Are French and Italian consumers familiar with sustainable wine and if so, what meanings do they associate with this concept; (ii) Which product-attribute associations do French and Italian consumers attach to sustainable wine, which associations are country-specific, which are product-specific and what are the differences to conventional wine; and (iii) How does wine involvement and a propensity towards ecologically and ethically minded behaviours affect consumers' perceptions about sustainable wine?

#### 4. RESEARCH METHOD

An online consumer survey was administered by posting the questionnaire through social media in France and Italy from June to October 2016. The questionnaire comprised three sections. The first section analysed the awareness and immediate perceptions of respondents about sustainable wine in general by asking open-ended questions. The second section used a free-choice approach and the pick-any technique to measure consumers' perceptions about sustainable wine (Driesener and Romaniuk, 2006) and to explore and compare consumers' perceptions of conventional wine and sustainable wine. Specifically, respondents were asked state which attribute(s) they associated with each wine. They could freely link any, all or no wine to each attribute. The lists of attributes and wines were adopted from the earlier study of Remaud and Sirieix (2012) conducted in Australia and France and was selected following the literature review and tested on a focus group in Italy.

The list of attributes comprised 18 items representing four different groups of wine characteristics: (i) concrete characteristics (i.e., good value for money, more expensive, low quality, genuine taste and distinctive taste); (ii) image characteristics (i.e., traditional, luxury, innovative, linked to its origin and requiring education to appreciate); (iii) benefits to the

consumer (i.e., does not cause headaches, good for health, pleasure and fun, and trendy); (iv) benefits for the society (i.e., harmless to the environment, a more responsible winemaker, supports local production and respects ethical values).

The list of wines comprised six wines defined as sustainable and accessible to consumers in both countries (Mariani and Vastola, 2015): (i) organic wine; (ii) biodynamic wine; (iii) wine with no added sulphites; (iv) natural wine; (v) fair trade wine; and (vi) carbon neutral wine. Conventional wine was also included so that the respondents could consider a product with no sustainability features.

The third section of the survey used the Ethically Minded Consumer Behaviour (EMCB) scale developed by Sudbury-Riley and Kohlbacher (2016) to explore respondents' attitudes towards the concept of sustainability. Respondents' involvement with wine was evaluated using a scale proposed by Yuan et al. (2008).

The data were analysed using statistical software SPSS 22.0 and the technique of correspondence analysis. Attribute-product associations were represented through perception maps and tables of deviations. Median splits on summed scores of the EMCB and wine involvement scales were used to identify four types of consumers combining 'low' and 'high' divisions of EMCB and wine involvement for both countries. The four types included consumers with: (i) low EMCB and low wine involvement (T1); (ii) low EMCB and high wine involvement (T2); (iii) high EMCB and low wine involvement (T3); and (iv) high EMCB and high wine involvement (T4). Perception maps were generated for each type of consumer.

The samples comprised 148 people in France and 272 people in Italy. Unsurprisingly, as it was an online survey, the respondents in both samples were mostly young and well educated. However, the French sample mainly comprised female students with low-income levels, while the majority of the Italian respondents were male workers with medium income levels. Both samples indicated they were frequent wine consumers. Specifically, 86.1 per cent and 74.4 per cent of respondents stated that they drank wine at least several times per month from the French and Italian samples, respectively.

#### 5. RESULTS

# 5.1. Consumers' awareness and top-of-mind perceptions about sustainable wine

The French respondents appeared to be more familiar with sustainable wine than Italian respondents. Specifically, 54.7 per cent of the French sample, but only 38.2 per cent of the Italian sample had already heard of sustainable wine. Of the respondents familiar with the term 'sustainable wine', respondents' top-of-mind perceptions across the two countries linked sustainable wine with respect for the environment and specific types of product (Table 1). A similar percentage of respondents across France and Italy also indicated that using low levels of pesticides and chemical products was important.

Interestingly, subsequent word associations were focused on the benefits of sustainable wine in terms of sustainable development and its positive social and economic effects by French respondents. Conversely, Italian respondents highlighted the concept of ecology, improving biodiversity and the benefits for personal health. Very few respondents associated sustainability with a 'green' marketing strategy by wineries.

The absence of chemical inputs and the organic nature of these products were the top-of-mind characteristics noted for sustainable wine among the French and Italian respondents,

respectively. Further, Italian respondents highlighted a wider range of subjective individual benefits (such as being natural, healthy, genuine, good and safe). Very few respondents in either country perceived sustainable wine to be an expensive product.

Table 2 sets out the meanings that unaware respondents associated with the term 'sustainable wine'. In both countries, respondents associated respect for the environment and the ecosystem with sustainable wine. They also associated sustainable wine with organic, biodynamic or natural wine. Similar percentages of respondents in both France and Italy indicated the social benefits and the link to the local production. Additionally, similar percentages of French and Italian respondents had no idea about the meaning of the term. Further, unlike the French respondents, two-fifths of the Italian respondents indicated that health and quality were further positive characteristics of sustainable wine.

Table 1 Word associations among respondents familiar with sustainable wine

	France (n=81) frequency (%)	Italy (n=104) frequency (%)
Respect for the environment	44.4	34.6
Organic wine, biodynamic wine, natural wine or wine without added sulphites	32.1	41.3
Sustainable development	27.2	2.9
Social and/or economic development	18.5	3.8
Less pesticides and chemical products	12.3	11.5
Ecology and biodiversity	3.7	18.3
'Green' marketing	2.5	4.8
Healthy product	0.0	5.8

Note: Multiple responses were accepted for both questions.

Table 2 Word associations among respondents unfamiliar with sustainable wine

	France (n=67) frequency (%)	Italy (n=168) frequency (%)
Respect for the environment	32.8	47.0
Organic wine, biodynamic wine or natural wine	31.3	29.8
Social development and equity	14.9	14.9
Local product	10.4	15.5
A healthy and quality product	-	39.9
I don't know	13.4	13.7

# 5.2. Attribute-product associations

Figure 1 sets out consumers' perception maps of attribute-product associations for the French and Italian respondents. There were some similarities between the attribute-product associations of the two samples. However, French respondents appeared to have a better ability to discriminate between attribute and product in the perceptual space than Italian respondents. Two latent dimensions explained approximately four-fifths of the variances in both samples. The first dimension that compared sustainable wine to conventional wine explained approximately half of the variance, while the second dimension explained 27 per cent of the variance and compared wine with no added sulphites to other sustainable wines, and health and sensory benefits to ethics.

The analysis of deviations from the expected levels of responses showed that both samples positively associated conventional wine with the characteristics of tradition, good value for money, pleasure and fun and as being either low quality or luxury. However, conventional wine was not seen as trendy, innovative or more expensive. Respondents also held negative perceptions about the societal benefits of responsible wine making, its harmlessness to the environment and respecting ethical values.

As confirmed by their positions close to the centre of the maps (see Figure 1), organic and biodynamic wines received moderate attribute associations in relation to the expected levels of response. Organic wine was associated with the characteristics of being harmless to the environment, trendy, good for health and more expensive. Italian respondents also perceived it as having a genuine taste. Italian respondents did not see organic wine as being low quality, traditional or supporting local production while French respondents did not see it as being innovative or requiring education to be appreciated.

Both samples perceived biodynamic wine as being more expensive and innovative, but did not see it as being able to support local production or as offering good value for money. French respondents also highlighted the fact that it could be harmless to the environment, while Italian respondents associated it with luxury and as requiring education to be appreciated, but negatively associated it with tradition, respect for ethical values and links to origin.

Wine with no added sulphites was clearly associated with health benefits and French respondents believed that it had a distinctive taste. Negative associations included its benefits for society and the environment. Respondents associated natural wine with a respect for ethical values. French respondents also highlighted its benefits for local production and saw it as being associated with more responsible winemakers.

Fair trade wine was perceived as having the ability to support local production and as respecting ethical values, but was negatively seen in relation to harmlessness to the environment, its innovativeness and healthiness. Conversely, carbon neutral wine was perceived as being harmless to the environment and innovative; however, it was not seen as traditional or as having a genuine taste. Italian respondents added the characteristics of winemakers that are more responsible and respect ethical values.

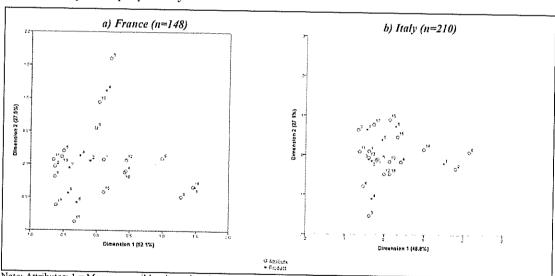


Figure 1 Perception maps by country

Note: Attributes: 1 = More responsible winemaker, 2 = Harmless to the environment; 3 = Does not cause headaches; 4 = Pleasure and fun; 5 = Trendy; 6 = Low quality; 7 = Need to be educated to appreciate; 8= Good for health; 9 = Traditional; 10 = Luxury; 11 = Innovative; 12 = Genuine taste; 13 = More expensive; 14 = Good value for money; 15 = Supports local production; 16 = Linked to its origin; 17 = Respects ethical values; 18 = Distinctive taste. Products: 1 = conventional wine; 2 = organic wine; 3 = biodynamic wine; 4 = Wine with no added sulphites; 5 = natural wine; 6 = fair trade wine; 7 = carbon neutral wine.

Perception maps of the four consumer types highlighted the different influences of EMCB and wine involvement on consumers' perceptions of sustainable wine.

Less involved consumers associated specific attributes to conventional wine and wine with no added sulphites, but showed less discriminative ability in relation to the other sustainable wines. When EMCB was high (i.e., among T3 consumers), natural, fair trade and carbon neutral wines were positioned very close to each other on the perceptual map in relation to conventional wine and were mainly associated with ethical attributes.

When wine involvement was high (i.e., among T2 and T4 consumers), it appears that it was easier for respondents to attach product-attribute associations (e.g., the distinctive taste of wine with no added sulphites) to sustainable wine. In relation to the other wines, the respondents distinguished between both organic and biodynamic wines and natural, fair trade and carbon neutral wines. Notably, T4 consumers with high EMCB make particularly clear distinctions. Organic and biodynamic wines were associated with product characteristics (i.e., as being more expensive, innovative, trendy and requiring education) while natural, fair trade and carbon neutral wines were associated with benefits to society. Natural wine was closely associated with ethical values, fair trade wine was associated with supporting local production and carbon neutral wine was associated with respect for the environment and responsible winemaking.

# 6. DISCUSSION AND CONCLUSION

French and Italian respondents showed different levels of familiarity with sustainable wine. The perceptions in the top of consumers' mind were similar in both countries; however, French respondents were more focused on its positive social and economic effects and Italian respondents were more focused on the benefits of sustainable wine in terms of product quality and individual health. These results were consistent with the recent work of Thøgersen (2017) who found that openness to environmentally friendly food products differs between lifestyles and European regions. Unfamiliar respondents with sustainable wine held similar positive perceptions as the familiar respondents; however, fewer word associations were elicited. Only a small share of the respondents proved to be sceptical about sustainable wine. These results have practical relevance for wine marketers. If the positive effects of sustainable production practices were emphasized (in terms of resource savings, waste reduction or economic and social balances), consumers could be provided with concrete evidence of the expected benefits of sustainable wine and consumer's credibility (undoubtedly the weak points of sustainable products) could be increased (Ginon et al., 2014). In the perceptual space, French and Italian respondents clearly differentiated between conventional wine and sustainable wine, perceiving sustainable wine as more innovative and trendy. These results also support Thøgersen's (2017) findings in relation to food products. Among sustainable wines, the perceptual dimension ranged from health and sensory benefits to ethical values. Wine with no added sulphites was perceived differently to other types of sustainable wines. Organic and biodynamic wines received moderate attribute associations and were mainly associated with concrete or image product characteristics. Conversely, consumers mostly associated ethical attributes to natural, fair trade and carbon neutral wines. Combined with the market segmentations proposed by several previous studies (i.e., Pomarici and Vecchio (2014), Sogari et al. (2015) and Thøgersen, (2017)), these results could be used to support wineries' decision-making processes in relation to product mixes and consumer targets. The perceptual space showed the relative distance among types of sustainable wine. Further, the product-attribute associations identified by this study could provide a starting point for consistent

marketing combinations between product portfolio, target market expectations in terms of quality and sustainable impacts, promotion and communication campaigns.

In relation to the French sample, the results of this study were compared to those obtained by Remaud and Sirieix (2010) in their study on perceptions of organic, biodynamic and wine with no added sulphites. The comparison showed that the image of conventional wine has not changed significantly in France and that the image of organic wine remains the same for most attributes (i.e., harmless to the environment, trendy, good for health and more expensive). However, some of the associations were weaker in the present study. Interestingly, the attribute 'good value for money' was negatively associated with organic wine in 2010, but was not more significantly associated with organic wine in the present study. Additionally, biodynamic wine was perceived as being less expensive, trendy and innovative than in 2010, but was more strongly associated with being harmless to the environment. The need for education to appreciate the wine was no more significantly associated with this type of wine. Finally, in both studies, wine with no added sulphites was associated with health-related attributes. Thus, it can be concluded that the positioning of organic and biodynamic wines has changed; both were seen as more being familiar and less expensive than in the previous study. This is also consistent with the growing market share of these wines and the decreasing price gap between these and conventional wines.

In relation to the Italian sample, the results accord with previous studies on the Italian sustainable wine market (Mariani and Vastola, 2015). Among the product-attribute associations, Italian respondents attach importance to respect for the environment and ethics, but the expense of these products does not appear to be an issue. This also confirmed Sogari et al.'s (2015) study that found a positive relationship between positive attitudes towards sustainable wine, higher beliefs of environmental protection and a willingness to pay more money.

The present study extended the research by showing how wine involvement and a propensity towards ecologically and ethically minded behaviours affect consumers' perceptions. The findings highlighted that consumers' involvement with products plays a key role in determining their ability to discriminate between the different types of sustainable wine. Conversely, consumers' attitudes towards an EMCB appeared to explain to a lesser extent differences in consumers' perceptions. These results were also consistent with those of Sogari et al. (2016) who showed that valuing environmental protection is not significantly related to the level of importance attributed to sustainable aspects in wine. Additionally, the results are partially in line with those of Pomarici and Vecchio (2014) who identified the relevance of wine involvement, but also considered other factors such as wine purchasing frequency and interest in sustainable foods to reduce the attitude-behaviour gap.

It appears that is the first time that the EMCB scale has been applied to analyse the perceptions of wine consumers. However, this study does have some research limitations. The first limitation relates to the size of the sample investigated. Future studies should be conducted in new world wine-producing countries or countries characterised by an emerging wine demand. The attitude-behaviour gap is also an area that has not been investigated in relation to sustainable wines. Scholars and marketers should pay close attention to this issue to identify feasible solutions for wine.

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