

HOW DO CONSUMERS PERCEIVE SUSTAINABLE WINE? A REVIEW

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ABSTRACT

The paper examines the state of the art in the purchasing behaviour towards sustainable wine through a systematic review of scientific literature from 2003 to 2018. In order to investigate about the effectiveness of sustainable wine, the research question is concentrate on the relations between sustainable-labelled wines with the intrinsic and extrinsic characteristics of consumers.

A review has been conducted in this study with the objective of seeking a meaningful picture of the findings presented in a collection of studies. The study identifies the consumers' profile of sustainable wine with regard to socio-demographic and psychosocial characteristics.

The results of the study show how consumers have positive perceptions regarding sustainable wine and a willingness to pay a price premium, though the awareness about the broad concept of sustainability is still vague. The main shortcomings of the existing literature and possible trajectories for future research experience are also discussed. The study concludes with observations on implications for industry practices and product development, providing useful information for both professionals and policy makers.

KEY WORDS

Sustainable wine, consumer behaviour, sustainability, consumer preferences, wine, WTP

INTRODUCTION

Over the past decades, consumer demand for sustainable wine has grown substantially, but there is still lacking of a clear understanding about the effectiveness of sustainable-label in consumer consumption due to the lack of research in this field.

We take this challenge as an opportunity for investigating about the role of sustainable-label in the process of leading consumers to purchase sustainable wine. Furthermore, the results could be used to explore opportunities for wineries to enable sustainable-label effectiveness, since, the concept of sustainability, in the last decades, has created increasing interest in the wine industry (Remaud et al., 2008).

Several wineries have included environmental, social and economic aspects of sustainability at different stages in their management strategy to respond to consumer demand and to reinforce their brand and market positioning (Forbes and De Silva, 2012; Remaud et al., 2008).

Since several authors show that consumers consider sustainable practices an important feature of wine production, paying a price premium for this wine, the sustainability in the wine sector could become a key competitive advantage, especially at international level (Forbes et al., 2009). However, it is not easy define the large concept of sustainability, especially in the wine sector. In fact, each country and even each winery has a different understanding and perception of the broad concept of sustainability. Nowadays, the term is still associated with the environmental dimension of sustainability in the wine production.

Therefore, wine represents an interesting case of sustainable-certification with dissimilarity in labelling strategies. This distinctive feature allows us to identify potential benefits that could be associated with the certification process independently from those associated with the other quality labels (Bellia, Safonte; 2015).

According to literature, consumers have positive perceptions regarding sustainable wine and report a willingness to pay (WTP) a premium, but consumer awareness about the broad concept of sustainability is still vague (Zucca et al., 2009). This price premium could be explained by the higher utility for consumers, since they perceive these products as higher quality, healthier and environmentally friendly (Brugarolas et al., 2005).

Consumers appear to have diversified opinions and perception about sustainability, as the conditions and context under which these strategies can affect the WTP price premium are not completely investigated.

In order to better understand wine consumers' interest in sustainable wines, this paper investigates the influence that several consumer characteristics have on these decisions, perceptions, and preferences.

1. THEORETICAL BACKGROUND

Food-related behaviour is also called as food habits, which is defined as the way in which people in response to social and cultural pressures, select, consume, and utilize portions of the available food supply (Axelson, 1986, p.345). The food-related behaviours are complex, and have different kinds of determinants (Axelson, 1986, p.347). The investigation on these determinants of food-related behaviour lead green marketing being effective to affect food-related consumer behaviour (Straughan & Roberts, 1999, p.559).

According to Axelson (1986, p.347.), these determinants are divided into two categories: Socio-demographic determinants and psychosocial determinants. In specific to ecologically conscious consumer behaviour (ECCB), these determinants are also taken as indicators of consumers 'propensity of purchasing ecological food by certain studies (Straughan & Roberts, 1999, p.559; Mainieri et al., 1997, p.191; Diamantopoulos, 2003, p.467; Gilg, Barr, & Ford, 2005, p.482).

In order to investigate about the effectiveness of sustainable label, the research question is concentrate on the relations between sustainable wines labelled with the characteristics of consumers. As indicated by previous studies (Fotopoulos et al., 2003) the

purchasing behaviour of sustainable wine consumers can be described taking into account different perspectives extrinsic and intrinsic consumer attribute: attitude, expertise, knowledge, awareness, habit, belief, concern (extrinsic) and socio-demographic factors (intrinsic).

2. METHOD: LITERATURE SEARCHING CRITERIA

The systematic literature review was carried out in order to select a relevant number of studies and to summarize the findings of the literature about the consumer preferences and purchasing behaviour towards sustainable-labelled wine.

The systematic literature review followed a detailed protocol, consisting of organized, transparent and replicable procedures (Littell, Corcoran, & Pillai, 2008).

Data were collected using the main scientific electronic research databases and reference lists from identified studies. We also searched the websites of authors who have an established history of conducting consumers' behaviour studies.

The literature searching was conducted using a combination of keywords in the on-line scientific search engines. We have also selected some journals focused in the field of wine economics, and we have searched for articles that examine the issue of sustainability perception for wine consumer.

The keywords used in this searching method, combined with the word "wine" and "sustainable", "green", "organic", "biodynamic", "environment", are: "consumers", "consumption", "attitudes", "preferences", "behaviour", "willingness to pay", "choices", "attributes", "label".

The first keywords were used to limit the search to studies that consider sustainable wine, while the second group to identify the studies based on consumer behaviour analysis.

The search was carried out during February and March 2018, and it was intentionally limited to the post 2000 period in order to capture the relevant recent trends on the topic of interest and to exclude outdated studies.

Only research papers written in English and published in scientific journals were included in order to process information and to delimit the literature characterized by high visibility within the scientific community.

Because of the problems of availability and readability for some related literature, it is hard to include all studies in this field. However, this research does have collected a reasonable large and representative bundle of studies from which some fundamental conclusions could be drawn.

Articles were initially selected on the basis of information contained in the title and after that were excluded duplicated articles extracted from different databases. Each of the remaining articles were further reviewed on the basis of information contained, first, in the abstract, and, after, in the full text.

The examination of the abstracts led to the exclusion of some articles not focused on consumers' behaviour analysis, or not dealing with sustainable wine. Finally, only 44 papers were selected for the systematic review.

The studies were conducted in several countries, as shown in Table 1.

Table 1. Countries where study cases were conducted

Countries	Number of Articles*
Italy	11
USA	12
France	7
Germany	6
UK	4
Spain	4
Canada	4
Greece	2
Australia	1
New Zealand	1
South Africa	1
Switzerland	2
Ireland	1
Sweden	1

(Source: Author, 2018)

*Some studies were carried out in more than one country.

The majority of selected studies analysed in this review are based on data collected by means of a questionnaire administered face to face or on-line, while other studies used focus groups, hedonic price, or non-hypothetical choice.

Data analysis was mostly based on multivariate research methods, econometric models and, in some cases, original research designs combining different analytical tools.

After having verified their contents, the articles have been incorporated in a database that has been created for sorting and analysing the results (Table 2). From 2000 to 2007, just 3 articles were published. From 2008 to 2012, 15 papers were published. In the period from 2013 to 2018, were published 26 articles.

Table 2. Focus and study cases

Focus	Articles
Organic	14
Environmental friendly	6
Environmental sustainable	6
Sustainable	6
Local	3
Organic and Local	3
Ecolabel	2
Environmental and Social	2
Environmentally friendly and local	1
Organic and environmental sustainable	1

(Source: Author, 2018)

3. RESULTS

3.1 Socio-demographic determinants

Some studies on consumer preferences for sustainable wine find significant correlation between demographics and purchasing behavioural. Demographic variables, which correlate with sustainable attitudes and behaviours, are classified by Straughan & Roberts (1999, pp.559-560) as age, gender, education, and income.

Gender. Previous research shows that women have higher level of sustainable attitude than male (Straughan & Roberts, 1999, p.560). Laroche et al. (2001) investigate the demographic, psychological and behavioural profiles of consumers willing to pay a price premium, showing that this segment of consumers is more likely to be female. Being female significantly increase the probability of buying sustainable wines. In fact, high WTP may be due to a gender status: women tend to pay more attention to such products compared to men (Remaud et al., 2010; Barber et al., 2010; Pomarici and Vecchio, 2014; Sellers, 2016; Vecchio, 2013).

Education. Level of education is another demographic variable that effectively works on consumers 'sustainable attitude and behaviour. Based on the investigation about large number of previous studies, a vast majority results tell that there is a significant relationship "the better educated tend to score higher on all components of the environmental domain" (Diamantopoulos et al., 2003, p.472). Therefore, consumers with high level of education are expected to have much clearer and full perspective understanding on ecological issues. In addition, a high level of information regarding wine in general, but also specific claim for the sustainability of the wine, led consumers to prefer sustainable wine (Mann et al., 2012).

Income. Income is another social-demographic variable affecting sustainable attitudes and behaviours as described by Straughan & Roberts (1999). Further, they pointed a common belief: the higher income level the person has, the more he buy sustainable food; furthermore, income is usually taken as a predictor of sustainable behaviour. According to these findings, even for willingness to a pay a price premium, a high WTP may be due to a higher household income (Loureiro, 2003; Sellers, 2016; Schäufele et al 2018).

Age. Most of early studies on how the age influence consumers' ecological attitude and behaviour support the statement that "younger individuals are likely to be more sensitive to environmental issues" (Straughan & Roberts, 1999, p559). According to Bernabeu et al (2008), young consumers concerned with environmental issues have a positive attitude towards sustainable wine. However, despite being interested in eco-friendly practices, they might not have a financial budget to buy organic products, considered more expensive (Sogari et al., 2016). On the contrary, other research show that being older significantly increases the probability of buying sustainable wines and a high WTP (Sellers, 2016; Vecchio, 2013; Pomarici and Vecchio, 2014). Mann et al. (2012) even suggest no correlation with the age.

3.2 Psychosocial determinants

Environmental concerns. Values and beliefs shape consumers' attitudes towards the purchase of sustainable food. The development of attitudes through beliefs and values, as well as their influence on buying behaviour in sustainable wine was a key issue in the examined articles. Many authors have identified environmental consciousness of consumers as one of the most important drivers in their buying behaviour towards organic products (Chang and Zepeda, 2005; Mondelaers et al., 2009; Forbes et al., 2009). Overall, the perception that these products are better for the environment had a positive effect on behavioural intentions towards sustainable wine (Bonn et al., 2016). Zepeda and Deal (2009) showed that the purchase of organic food could be sustained through ecologist values.

Even the findings of the study carried out by Olsen et al. (2012) explain this behaviour, founding a connection between environmental values and the buying behaviour and preferences for sustainable wines. The outcomes confirm that consumers who are sensitive to environmental and quality issues are willing to pay a premium for quality food, and that wider information about wine with no added sulphites is required for effective price differentiation. Controversy, in a study conducted by Bazoche et al. (2008) it seems that some consumers are not willing to pay any price points for eco wines even when they are informed about the possible negative effects of pesticides used in the winegrowing process. Some of them may think that sustainability issues do not concern the wine industry. However, studies show that some consumers have a low involvement and interest in

sustainability issues and very low WTP for eco wine. They consider price the only important attribute for their purchasing decision (Bernab   et al., 2008). They do not consider an eco-label as a strong element of differentiation and they identify these wines with a low overall quality (Loureiro, 2003). They do not look for sustainable wines because they believe such products have no environmental benefits compared to conventional products (Olsen et al., 2012).

Barber et al. (2010) shows the consequence of being environmentally friendly when purchasing sustainable wine and collectivism are all very good predictors of consumers' intention to pay a premium price for green wine packaging. They find that consumer environmental knowledge influences WTP higher price premium for environmentally friendly wines. They found that the choice of these products is made because consumers are more concerned to help producers, and they believe these wines are more environmentally friendly.

Barber (2012) looked at the influence of environmentally safe wines on the attitude towards purchasing. He found there is a small segment of an environmentally knowledgeable consumer willing to purchase wines with such a designation, though he points out this is merely an intention to purchase and he did not measure actual purchase behaviour.

Sogari et al. (2016) showed that Italian consumers with a positive attitude towards sustainable wine and a higher value of environmental protection were willing to pay higher price premiums for sustainable-labelled wine.

Healthy concern. Consumer behaviour toward healthy food has become a crucial matter in agri-food economics, since the health benefit were found to be a great motivator. This was found even in the case of sustainable wine purchasing, showing a positive effect of health benefit of these products on consumers' behavioural intentions (Bonn et al., 2016). This is widely recognized by the literature. Wiedmann et al. (2014) found that consumers prefer organic viticulture because it is perceived better, healthier and safer.

According to Mann et al. (2012), consumer perceives organic wine as healthier than other wines and this was the best predictor for Swiss consumers' choice of organic wine. Even the findings of the study carried out by Fotopoulos et al. (2003) indicated that for Greek organic food buyers, the organic label was found very important in purchasing wine.

In a study conducted in Italy, France, Germany and Switzerland by Stolz and Schmid (2008) in order to study consumers' attitudes and expectations towards organic wines, was found by authors that consumers perceived sustainable wine to be healthier than conventional one.

Another research, carried out by Sirieix and Remaud (2010), indicated that even if organic wines are viewed as healthier than conventional wines, most consumers still perceive environmentally-friendly products as too expensive and with a lower sensorial quality image.

With regard to the willingness to pay a price premium, Brugarolas et al. (2005) show the average price premium for an organic wine is 17%, although it ranges from 12% for respondents worried about other factors to 21% for those who care about environmental issues. In addition, for Spanish consumers the level of knowledge about organic products was linked to the interest towards organic wine.

Belief and Value. The belief that sustainable products provide benefits for the environment and for health, as well as the belief that sustainable labels guarantee high quality standards for consumers was associated with positive attitude when purchasing wine. Sogari et al. (2016) showed the link between beliefs and consumption of sustainable wine. Additionally, Italian consumers with a positive attitude towards sustainable wine and a higher value of environmental safeguard were willing to pay higher price premiums for sustainable wine.

Sch  ufele et al (2018) explores the attitude-behaviour-gap for organic wine in Germany and founded positive attitudes towards organic wine in large consumer segments. Health, environmental and quality benefits were indicated as drivers for purchase choices. Therefore, communication about sustainability issues, which also includes economic and social features, could help to develop a sustainable wine market and lead to higher market shares.

Mueller Loose and Remaud (2013) founded that environmental and social fairness benefits were associated with organic labels. However, consumers' perception of environmental friendliness had not effect on the purchase and consumption of organic wine (Kim and Bonn, 2015; Mann et al., 2012; Mann et al., 2012; Rahman et al., 2014).

Loureiro (2003), in a study on Colorado wines, showed a higher WTP by consumers who cared more about the local attribute when purchasing wine for sustainable wines. According to results, consumers bought Colorado wines in order to support local economy.

With regard to other dimensions of sustainability, the study carried out by Grebitus et al (2013) examined the influence of beliefs about local wine on the WTP and they found that the belief that purchasing local wine supports the local economy had not positive impact on the WTP.

According to the study of Kim and Bonn (2015) trust in the winery was the key aspect influencing consumers' behaviour toward sustainable wine. Bonn et al. (2016) revealed that trust in producer and retailer may influence consumer behaviour toward organic wine.

Knowledge and awareness.

Regarding the influence of information on consumer behaviour, the study carried out by Wiedmann et al. (2014) provided empirical evidence that a higher level of information was related to a higher preference for organic wine. According to their results, the information provided to consumers increased consumers' assessment of organic wine.

Zepeda and Deal (2009) illustrated that better levels of knowledge regarding organic farming practices may lead consumers to buying organic food. In the study of Kim and Bonn (2015), according to their findings, consumers who indicating a better knowledge of organic wine indicated a significantly higher willingness to buy organic wines.

The level of knowledge about organic products was linked to a higher choice for organic wine for Spanish consumers (Brugarolas et al., 2010), and a higher WTP price premium for Italian consumers (D'Amico et al., 2016).

Sellers (2016) showed that Spanish consumers with a higher level of knowledge about sustainable products had higher WTP, while, surprisingly, having a high level of knowledge about wine culture had a negative impact on the willingness to pay a price premium.

Van Tonder and Mulder (2015), in a qualitative study on South African consumers, showed the importance of images when buying organic wine. Forbes et al. (2009) found that the majority of New Zealand consumers required wine labels, which reveal the importance of information about sustainable production practices on consumers.

Pomarici and Vecchio (2014) showed that awareness of the meaning of the environmental and the social sustainability label of Italian consumers was considerably associated to the purchasing choice. Similarly, label awareness and purchasing choice correlated significantly (Mueller Loose and Remaud, 2013). High level of knowledge about labels increased Italian consumers' willingness to pay a price premium for labelled wine (Vecchio, 2013).

In another study carried out by Soosay et al. (2012) participants' revealed low interest and substantial scepticism regarding to information on the back label. Interestingly, Pomarici et al. (2016) showed that the consumer concerned about environmentally friendly wines was a wine expert and paid attention to the information on the back-label.

The study of Ginon et al. (2014) shown that even French consumers know little about labels indicating environmental dimension of sustainability. However, according to the same authors, organic labels appeared to be well known and understood compared to other types of sustainable labels (Ginon et al., 2014).

Habits. It is well known that habits play a main role in food buying choices (Zepeda and Deal, 2009). With regard to sustainable wine, Pomarici and Vecchio (2014) founded that being responsible for food shopping, the wine purchasing frequency, and the attention towards sustainable food in general, significantly increased the purchase probability for sustainable-labelled wine.

Vecchio (2013) found that wine consumption frequency and caring about environmental sustainability in wine shopping to be significant factors affecting positively the WTP price premiums for wines with sustainable feature. Additionally, even the study carried out by Pomarici et al. (2016) revealed that consumer interest in environmentally friendly wines was linked with wine consumption frequency of wine. The results was confirmed even by Woods et al. (2013) showing that important drivers of local wine consumption for Northern Appalachian consumers were a high purchasing frequency of wine and local food in general. Likewise, D'Amico et al. (2014) founded a clear relationship between the choice of local wine and purchasing frequency for Italian consumers. Another study (Loureiro, 2003) on US consumers from Colorado revealed similar results. Controversy, in the case of organic wine, the frequency and consumption of wine had no influence on organic wine purchases (Mann et al., 2012).

Consumption frequency affects also the WTP for sustainable wine. Consumers who bought wine with high frequency showed a higher WTP price premium for local wines.

The authors explain this results with the higher information level that characterize frequent wine drinkers regarding their higher capability to distinguish between different wine 'quality. These outcomes highlight the effect of attitude towards sustainability concerns on the development of habits.

CONCLUSION

Due to the development of new certification, on public and private basis, as well as several sustainable winegrowing programs and guidelines implemented at different levels by the public policies, wine industry, and other stakeholders of wine sector, the interest of academics and practitioners towards consumers' behaviour for sustainable-labelled wine has increasingly grown (Forbes and De Silva, 2012).

Understanding the consumer 'profile and what drives consumers wine choice, as well as their individual perception is useful for industry practices and product development for successfully marketing wine; especially as the consumption patterns and preferences for wine have changed significantly since the late 1980s (Fotopoulos et al., 2003; Smith & Solgaard, 1996).

The multidisciplinary study of consumer science, in the last decade, has highlighted how many different factors can motivate behaviour towards a more sustainable consumption: among these are relevant cognitive aspects, such as values, attitudes and intentions - but also external factors - such as incentives, norms and public policies. In particular, intrinsic characteristics of consumer, such as demographic features have resulted useful to identify a sustainable consumer 'profile.

Most wine consumers purchase sustainable wine for the perceived health and environmental benefits, while others for prestige and social image (Mann, Ferjani, & Reissig, 2012; Ogbeide, 2013).

The results highlight that most of the studies reviewed focused on the environmental dimension of sustainability; thus, future research should pay attention on social and economic aspects of sustainability in the wine sector.

According to results, a research gaps about the impact of context on consumers' purchase behaviour exist. However, in recent years, consumers are increasingly attentive to all natural, authentic wines, but there is still confusion on the broad concept of sustainability.

The results show how, overall, consumers have positive perceptions and opinions regarding sustainable wine and they show a willingness to pay higher price premium, even if the awareness about the broad concept of sustainability is still vague.

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