Identifying motives underlying wine purchase decisions: Results from an exploratory free listing task with Burgundy wine consumers

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ABSTRACT

To better understand consumer decision making processes while purchasing wine it is important to identify which attributes consumers actually rely on and how they perceive and weight them in order to reach a final decision. The aims of the present work were to identify motives underlying wine purchase decisions and to identify consumer segments with different drivers of wine purchase. One hundred and twenty seven Burgundy wine consumers were asked to complete a free listing task. Relevance of each category of elicited terms was estimated by Smith's and Cognitive saliency indices. Hierarchical cluster analysis was performed on individual Smith's saliency indices.

In the free listing task, respondents listed an average of 5.6 terms, the minimum number per participant being 2 and the maximum 11. The four categories with the highest saliency indices were *Price*, *Production region*, *Wine type* and *Production year*. Two consumer segments with different motives underlying their wine purchase decisions were identified. Cluster 1, mainly composed of young consumers, elicited *Price*, *Production region*, *Food and wine pairing* and *Consumption context* as the most salient motives, while Cluster 2, composed of older consumers, mentioned *Production region*, *Price*, *Grape variety* and *Wine type* as the most salient ones.

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1. Introduction

In the French market wine is mainly bought in retail stores (BIVB, 2010, 2011). Therefore, when shopping for wine consumers have to face a wide range of products in a very short period of time (Britton, 1992). Since consumers usually cannot taste wine before purchasing it in retail stores, their decisions are based on their previous experiences, and on a great diversity of non-sensory information, such as packaging and the information available on the label (Lockshin, Jarvis, d'Hauteville, & Perrouty, 2006). In this context, a large number of factors might influence consumers' decisions regarding the type of wine they buy (Jaeger, Danaher, & Brodie, 2009), which makes wine purchase decision a complex process (Lockshin & Hall, 2003).

Attributes that affect consumers' wine quality perception and purchase intention have been traditionally divided into intrinsic and extrinsic cues (Charters & Pettigrew, 2007). Extrinsic cues can be modified without changing the product (e.g. price, label, consumption context, brand), whereas intrinsic cues are related to the product itself (e.g. sensory characteristics, wine type, wine colour).

Considering the difficulty in providing wines with standard quality due to dependence on climatic conditions, one of the main challenges for wine makers is to identify the attributes that drive consumers' purchase and particularly those which may determine their loyalty to a particular wine (Hollebeek, Jaeger, Brodie, & Balemi, 2007; Jarvis, Mueller, & Chiong, 2010).

Taking into account the large number of variables that affect wine quality (Charters & Pettigrew, 2007), consumers have to rely on a large number of attributes to make their wine purchase decisions. Several studies have reported that previous experiences with wine, price, origin, grape variety, brand name, awards, packaging features and food pairing are among the most important characteristics underlying consumer wine purchase decisions (Goodman, Lockshin, & Cohen, 2007a,

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2007b; Jaeger et al., 2009; Lockshin & Hall, 2003; Sáenz-Navajas, Campo, Sutan, Ballester, & Valentin, 2013).

One of the challenges in the development of more successful marketing strategies in the food industry, which is applicable in particular to the wine industry, is to identify consumer segments with different needs (Onwezen et al., 2012). In the special case of wine, consumers have been reported to have different perceptions and preferences according to their age, degree of involvement (Hollebeek et al., 2007; Jaeger et al., 2009), wine consumption frequency and purchase place (Martínez-Carrasco Martínez, Brugarolas Mollá-Bauzá, Del Campo Gomis, & Martínez Poveda, 2006). Particularly, the identification of consumer segments based on motives underlying their wine purchase can provide an effective way to build up marketing strategies for product development and the design of advertising and communication campaigns (Costa, Dekker, & Jongen, 2004; Onwezen et al., 2012; Solomon, Bamossy, & Askegaard, 2002).

Most recent research articles that estimate the relative importance of different factors on consumer wine purchase rely on quantitative approaches with a reduced number of variables, such as conjoint analysis (Hollebeek et al., 2007), rating tasks (Jaeger et al., 2009), choice models (Mueller, Osidacz, Francis, & Lockshin, 2010; Mueller & Szolnoki, 2010) or willingness-to-pay (Combris, Bazoche, Giraud-Héraud, & Issanchou, 2009; Sáenz-Navajas et al., 2013). In all these approaches, consumers evaluate a set of attributes (direct rating), or products varying on a pre-established set of attributes. Contrastingly, with qualitative techniques, such as word association task, interview, and free listing task, consumers are free to express their own attributes allowing deeper probing of consumer behaviour (Donoghue, 2000; Steinmann, 2009). These techniques are usually applied to identify the set of attributes to be included in subsequent quantitative studies (Lawless & Heymann, 2010).

Among the qualitative techniques, free listing task is a simple method widely used in anthropology that consists of asking participants to list all the terms that fit into a certain criteria (Rusell Bernard, 2005). The aim of this methodology is to get participants to list as many items they can, which, in turn, enables the definition of a cultural domain and provides a measure of the relative importance of those terms which define the domain (Libertino, Ferraris, López Osornio, & Hough, 2012). The advantage of this type of methodology in the identification of motives underlying wine purchase decisions is that it provides an overview of all factors that may influence consumer decisions as well as information about their relative importance, without asking consumers to specifically focus their attention on them. For this reason, free listing task is particularly useful to determine the importance of organic production among other factors, since this method allows avoiding social desirability bias. In fact, it has been reported that asking consumers directly about their opinions, motivations and feelings might lead to inaccurate results because they may not share their true feelings or opinions (Donoghue, 2000). For example, Mueller, Lockshin, and Louviere (2010) reported that direct measurement of attribute importance may not reveal consumer preferences and that results obtained from this type of methodology should be taken with caution.

The present work is part of a larger project, which aims to investigate producers' willingness to produce environmentally friendly wine, as well as consumers' willingness to buy such wine. The Ecophyto 2018 plan in France is aimed at achieving 50% reduction in pesticide use by 2018 (Ecophyto, 2008). This is particularly crucial in the French vine-growing sector, the second largest consumer of pesticides (20% by volume, according to Aubertot et al., 2005). In order to achieve this reduction it is necessary to align consumers' and producers' interests. Producers might only be willing to pursue environmentally friendly practices if they can gain an additional economic benefit for this effort. Thus, it is important to know the relevance of organic production for wine consumers. This project is focused on Burgundy, a French region well-known for its high-quality wines. Besides, it is a northern wine production region where pesticide use is related to the frequency of pests due to the climate (Butault et al., 2010; Mezière et al., 2009).

Therefore, the aims of the present work were: (a) to identify motives underlying wine purchase decisions of Burgundy wine consumers using a free listing task, (b) to estimate the relative importance of organic production in consumers' wine purchase decisions, and (c) to identify consumer segments with different drivers of wine purchase.

2. Materials and methods

This study is part of a broader investigation on consumer perception of environmentally friendly wine. Consumers were asked to answer a questionnaire composed of three distinct sections. The first one focused on wine and wine perception, the second focused on consumer environmental behaviour and, in the third one, demographic and wine consumption data were collected. The present paper focuses on a free listing task included in the first part of the questionnaire. The results from the second section will be presented in separated papers to make easier readers' understanding.

2.1. Consumers

One hundred and twenty seven consumers from Dijon area (France) participated in the study. They were selected from the ChemoSens Platform's PanelSens[2] database in January 2011. The recruitment criteria included men and women who purchased and consumed wine at least occasionally. Considering that the study involved perception of an alcoholic beverage (wine) only adult participants were considered. Consumers were recruited according to three age groups: 20 to 35, 36 to 50, and 51 to 70 years old, balanced for gender. Participants were asked to sign an informed consent form.

2.2. Data collection

Several sessions were organized at the Centre des Sciences du Goût et de l'Alimentation (CSGA), in Dijon, France. On average, 10 people took part in each session which lasted around 50–60 min. Consumers were invited to come to the Sensory Lab. After arriving, they received instructions about the task they were about to perform. Participants signed the informed consent form and received 10€ for their participation.

Consumers were asked to complete a free listing task about the motives underlying their wine purchase. They were given the following specific instructions: "Imagine that you are in your usual retail store, and about to buy a bottle of wine. Please list all criteria you generally take into account in this situation. You can quote as many expressions or terms that come spontaneously to your mind".

2.3. Data analyses

At first, the total number of terms elicited by each participant was counted and the minimum, average and maximum numbers of terms were calculated.

Terms elicited by participants were then qualitatively analysed. A search for recurrent terms was performed and those with similar meaning were grouped in the same category. If participants elicited different terms in the same category it was counted only once. This classification was performed by three authors according to their own personal criteria. After individually evaluating the data, a meeting of the researchers was undertaken in order to check the agreement among their classifications. Categories mentioned by more than 5% of participants were considered and their frequencies were determined after counting the number of participants that elicited each category.

Relevance of a term in the cognitive domain is defined not only by the percentage of consumers who mention it, but also by the order in which it is mentioned in the list (Henley, 1969). The most important

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[2] This data base has been declared to the relevant authority (Commission National Informatique et Libertés – CNIL – n° d'autorisation 1148039).

categories of a cultural domain are those which are listed by a large number of participants in the first positions of the list (Libertino et al., 2012). For this reason, the order in which each category was mentioned by each consumer was determined. The average order in which each category was cited was calculated.

Two saliency indices were calculated to estimate the relevance of each category: Smith's and Cognitive saliency indices, as suggested by Libertino et al. (2012). Smith's saliency index considers the number of participants who mention the category, the category's average order and the length of the list of each participant who cites that category (Barg, Keddem, Ginsburg, & Winston, 2009; Smith & Borgatti, 1997). For each category j, Smith's saliency index (S_j) was calculated using the following formula (Smith & Borgatti, 1997):

$$S_j = \left(\frac{\sum_{i=1}^{i=F_j} \frac{L_i - R_{ij} + 1}{L_i}}{N} \right) \tag{1}$$

where F_j = number of participants who mentioned category j at least once; L_i = total number of categories mentioned by participant i; R_{ij} = rank given by participant i to category j; and N is the total number of participants.

Cognitive saliency index takes into account the category's frequency of mention, its average order and the total number of participants (Sutrop, 2001). For category j, Cognitive saliency index (CSI_j) was calculated as follows (Sutrop, 2001):

$$CSI_j = \left(\frac{F_j}{N \cdot Ap_j} \right) \tag{2}$$

where Ap_j is the average rank of category j.

In order to identify consumer segments with different key drivers of wine purchase an individual Smith's saliency index (S_{ij}) was calculated as follows (Barg et al., 2009):

$$S_{ij} = \frac{L_i - R_{ij} + 1}{L_i}. \tag{3}$$

Hierarchical cluster analysis was performed on individual Smith's saliency indices for the considered Euclidean distances and Ward's aggregation criteria to identify consumer segments with different key drivers of wine purchase. As recommended by Libertino et al. (2012), items mentioned by few participants were not taken into account in the analysis due to the high uncertainty in calculated distances. Different criteria have been used to choose the most relevant categories in a free listing task. Hough and Ferraris (2010) and Ares and Deliza (2010) based their selection on the frequency of mention, picking those categories mentioned by more than 25% or 10% of the participants, respectively. In the present study, items mentioned by more than 10% of respondents were considered. Differences in the socio-demographic characteristics (gender, age and wine consumption frequency) of the identified clusters were investigated using Chi-square tests.

All statistical analyses were performed using XLStat 2009 (Addinsoft, Paris).

3. Results

3.1. Participants

Table 1 shows the socio-demographic characteristics of the 127 wine consumers who participated in the study.

Table 2 shows participants' behaviour related to wine consumption and purchase at supermarkets. Most participants (77%) made their wine purchase themselves, while 11% of them did not purchase wine

at supermarkets. Another thing to be highlighted is that wine purchase frequency was not affected by the intended use of wine.

3.2. Aggregate analysis

In the free listing task respondents listed an average of 5.6 terms related to the criteria they took into account while purchasing a bottle of wine. The minimum number of terms listed per participant was 2, whereas the maximum was 11.

Terms elicited by participants were grouped into 38 categories, of which 28 were mentioned by at least 5% of consumers (Table 3). All elicited categories were related to contextual variables such as price, information available on the label, occasion of use, and store characteristics.

Table 1
Socio-demographic characteristics of participants (n = 127).

	Participants (%)
Gender	
Female	54
Male	46
Age (years)	
20–35 (average: 27.9)	32
36–50 (average: 41.9)	32
51–70 (average: 60.5)	36
Education	
No study certificate	6
Secondary school	17
High school	18
College	27
Master	23
PhD	9
Number of adults in the household	
1	32
2	58
3 or more	10
Number of children (less than 18 years old) living at home	
0	76
1 or more	24

Table 2
Frequency of wine consumption and purchase at the supermarket of participants (n = 127).

	Participants (%)
Responsible for wine purchase	
Consumer	73
Consumer's partner	10
Another family member	2
Any person out of the household	0
Consumers with their partners	4
Wine is not purchase at this place	11
Wine purchase frequency for a regular meal	
Never	17
Rarely	14
Occasionally	25
Often	23
Very often	21
Wine purchase frequency for an improved meal without guests	
Never	15
Rarely	16
Occasionally	30
Often	24
Very often	15
Wine purchase frequency for an improved meal with guests	
Never	18
Rarely	12
Occasionally	25
Often	24
Very often	21
Wine consumption frequency	
Occasionally	43
Once or twice a week	38
Almost everyday	11
Everyday	8

Only two categories were directly related to sensory dimensions (*Wine colour* and *Sensory characteristics*).

Considering frequency of mention, half of the 28 categories were mentioned less than 10%. The three most mentioned categories were *Price*, *Production region* and *Production year*, which had a frequency of mention higher than 50% (Table 3). *Price* was particularly relevant, being mentioned by 92% of consumers. On the other hand, categories quoted in the first average positions (i.e. with the lowest average order) were *Wine type*, *Intended Use*, *Production region*, *Wine name*, and *In-store presentation*. Three of these five terms were not among the most mentioned by consumers (Table 3), suggesting that frequency of mention and average order provided different information about the relevance of each category in consumers' wine purchase decisions ($r = -0.28$, $p = 0.15$).

Two saliency indices were calculated to simultaneously take into account the number of participants who mentioned the category and the order in which it was listed. As shown in Fig. 1, for Smith's saliency index four groups of categories were identified: one corresponding to categories with saliency indices higher than 0.5 (*Production region* and *Price*), a second group with indices close to 0.3 (*Wine type* and *Production year*), a third one with indices between 0.2 and 0.1 (*Food and wine pairing*, *Label*, *Grape variety* and *Consumption context*) and the last one corresponding to terms with indices below 0.1, comprising all remaining categories. For Cognitive saliency index three groups of categories were observed: one comprised by categories with indices close to 0.3 (*Production region* and *Price*), a second one corresponding to categories between 0.2 and 0.1 (*Wine type* and *Production year*) and the last one, which comprised all remaining categories.

As shown in Fig. 1, Smith's and Cognitive saliency indices presented the same rank of terms. Correlation between these indices was highly significant ($r = 0.99$, $p < 0.0001$). Nevertheless, the existence of different breaking points between the two indices may suggest that the former provided better discrimination than the latter.

3.2. Identification of consumer segments

In order to identify consumer segments with different key drivers of wine purchase, cluster analysis was performed on individual Smith's saliency index (Eq. (3)) for the most relevant categories from the free listing task.

Categories mentioned by more than 10% of participants were considered, as previously proposed by Ares and Deliza (2010). Two consumer segments were identified by applying Hierarchical cluster analysis on individual Smith's saliency indices for the 14 selected categories: Cluster 1, consisting of 47 consumers (37% of the sample), and Cluster 2, composed by 80 consumers (63% of the consumer sample).

Smith's saliency indices (Eq. (2)) for all categories identified in the free listing task for both consumer segments are shown in Fig. 2. Categories were ranked differently for the two clusters. The most salient categories for consumers in Cluster 1 were *Price*, *Production region*, *Food and wine pairing*, *Wine type* and *Consumption context*; while *Production region*, *Price*, *Production year*, *Wine type*, and *Grape variety* were the most salient for Cluster 2.

The largest differences between clusters were found for the categories *Price*, *Production year*, *Food and wine pairing*, *Grape variety*, *Consumption context*, *Wine appellation* and *Production region*. As shown in Fig. 2, *Price*, *Food and wine pairing*, *Consumption context* and *Wine appellation* were more relevant for consumers in Cluster 1 than for those in Cluster 2, whereas the opposite was found for the categories *Production year*, *Grape variety* and *Production region*.

As shown in Table 4, these clusters did not significantly differ in their gender frequency distribution, whereas a highly significant difference existed in their age distribution. Compared to Cluster 1, Cluster 2 had a higher proportion of older consumers. Regarding wine consumption and wine purchase at the supermarket, no significant differences between consumer segments were found. However, consumers in Cluster 1 tended to purchase wine for an improved meal with guests at supermarkets more frequently than consumers in Cluster 2.

4. Discussion

As shown in Table 3, in the present study Burgundy consumers mentioned both extrinsic and intrinsic cues as determinants of their wine purchase decisions. Most of the elicited attributes were related to extrinsic cues, suggesting that consumers' purchase decision at the point of purchase can be strongly influenced by packaging attributes and the information available on the label, as previously reported by Mueller, Lockshin and Louviere (2010), Mueller, Lockshin, Saltman and Blanford (2010), Mueller, Osidacz, et al. (2010).

From a methodological perspective, frequency of mention and average order of the categories elicited in the free listing task provided different information about their relevance, as highlighted by Antmann et al. (2011). For this reason, cognitive salience indices were calculated to simultaneously take into account both types of information.

At the aggregate level, *Price* was the most frequently mentioned criterion defining consumers' wine purchase decision (Table 3) and the second in terms of salience (Fig. 1). Price has been reported to be an important quality signal for consumers (Hall & Lockshin, 2000; Koewn & Casey, 1995; Muller & Ruffieux, 2011), which could even override other criteria (Jenster & Jenster, 1993). On the other hand, price can be an economic constraint, which may also play a significant role in consumer purchase decisions (Erickson & Johansson, 1985).

Apart from *Price*, the other three categories with the highest saliency indices were *Production region*, *Wine type* and *Production year*. These four categories consisted of the most relevant motives underlying consumer wine purchase decisions. These results are in agreement with several studies conducted across different countries. According to Orth, McGarry Wolf, and Dodd (2005), "wine origin" is one of the most highly regarded intrinsic quality cues for consumers when estimating wine quality. Moreover, "wine origin" and "denomination of origin" have been already reported to play an important role in consumer purchase decisions and wine quality formation (Batt & Dean, 2000; Jaeger et al., 2009; Martínez-Carrasco Martínez et al., 2006; McCutcheon, Bruwer, & Li, 2009; Sáenz-Navajas et al., 2013). "Grape variety" and "production year" have also been reported to be relevant criteria for wine selection (Boudreaux & Palmer, 2007; Goodman et al., 2007a, 2007b; Jaeger et al., 2009). In particular, according to Sáenz-Navajas et al. (2013), "indication of vintage on the label" was the third most relevant attribute for Burgundy wine consumers. Information regarding wine sensory characteristics was not salient in this free listing task study, which is in agreement with Sáenz-Navajas et al. (2013). According to these authors, information related to aroma, provided on wine bottle back label, was not a relevant quality cue for Burgundy wine consumers.

Some remarkable differences came up when comparing results from the present study with published data. Jaeger et al. (2009) and Goodman et al. (2007b) stated that previous experiences with wine was the most relevant criterion for New Zealand and Australian consumers, respectively. However, *Previous experiences* (e.g. *knowledge of wine*; *personal preference*; *tasting if possible*) was the least salient category in the present work (Fig. 1), being elicited by only 5% of the consumers (Table 3). Furthermore, according to Goodman et al. (2007a), having tasted the wine previously was the third most important motive for French consumers when selecting their wine in a retail-setting. It is important to highlight, however, that the study reported by Goodman et al. (2007a) was based on best–worst scaling on a set of 13 attributes, whereas in the present one, consumers freely elicited all criteria they take into account while purchasing wine.

Moreover, according to Goodman et al. (2007a), matching wine with food was the most important motive for French consumers, which was, in the present study, the fourth most salient category in the free listing task (Fig. 1). Other attributes such as brand, type of producer, label

Table 3
Categories identified in free listing task: frequency of mention and average order in which they were listed for the whole consumer sample (n = 127).

Category	Frequency of mention (%)	Average order
Price	92	3.3
Production region	76	2.4
Production year	55	3.5
Wine type	37	1.8
Label	31	4.3
Food and wine pairing	29	3.8
Grape variety	21	3.1
Type of producer	19	4.0
Awards	18	4.4
Consumption context	17	3.7
Bottle shape	13	4.4
Brand	13	4.1
Wine appellation	12	3.1
Wine colour	12	3.1
Cru[a]	9	3.3
Vineyard	9	3.5
Sensory characteristics	8	3.8
Quality label	7	3.0
Environmentally sustainable production	6	5.4
Bottling place	6	3.4
Promotions	6	4.3
Reputation/Notoriety	6	4.7
Country of origin	6	5.1
In-store presentation	5	2.5
Wine name	5	2.2
Quality	5	5.2
Previous experiences	5	7.2
Intended use (for cooking or not)	5	2.0

Categories are listed according to their frequency of mention.
  [a] French word often used to indicate a specifically named and legally defined vineyard or ensemble of vineyards and vines which grow on such a reputed terroir; by extension of good quality. The term is also used to refer to wine produced from such vines. For Burgundy wine the term is applied to classified vineyards, with *Grand cru* being the highest classification level, followed by *Premier cru*. For Burgundy wine, the terms *Grand Cru* and *Premier Cru* are usually kept rather than being translated into English (Robinson, 2006).

design, bottling place, bottle shape and awards, which have been reported to be relevant in consumer wine purchase decisions in different countries (Australia, Germany, New-Zealand, Uruguay and France) were not salient at all in the present work (Chrea et al., 2011; Goodman et al., 2007a; Jaeger et al., 2009; Mueller, Lockshin and Louviere, 2010; Mueller, Lockshin, Saltman, et al., 2010; Mueller,

Osidacz, et al., 2010; Mueller & Szolnoki, 2010; Puyares, Ares, & Carrau, 2010; Sáenz-Navajas et al., 2013).

Another interesting result is that information on environmentally sustainable production showed a low saliency index (Fig. 1) and was mentioned by a very low proportion of consumers (Table 3), suggesting that Burgundy consumers might not be particularly concerned about the effects of conventional wine production practices on both human and environmental health. Considering the requirements for vine-growers to engage in more environmentally friendly practices in France (Saint-Ges & Bélis-Bergouignan, 2009), these results stress the importance of designing adequate marketing strategies to encourage consumers to choose environmentally friendly wines. Forbes, Cohen, Cullen, Wratten, and Fountain (2009) reported that New Zealand consumers showed a strong demand for wine, which had been produced using "green" practices. These authors, however, asked consumers directly about their interest in environmentally sustainable wine.

The above-mentioned differences can be attributed to methodological differences. The present work identified the most relevant wine attributes through consumer spontaneous responses using a free listing task. This technique is less structured than quantitative approaches and, therefore allows deeper probing of consumer behaviour (Donoghue, 2000). Other approaches such as conjoint analysis, rating tasks or best–worst scaling might overestimate, as well as underestimate, the importance of some attributes by making consumers focus their attention on a set of pre-determined characteristics. Direct questions can lead to social desirability bias by making consumers show themselves as positive as possible, giving culturally acceptable responses, regardless of their true feelings, attitudes and beliefs (Crowne & Marlowe, 1964; Fisher, 1993).

However, it is important to consider that free listing tasks only identify attributes that are cognitively relevant for consumers, not taking into account those attributes that unconsciously impact consumer behaviour (Köster, 2003). Examples of characteristics that might be not identified by free listing tasks include visual communication, and the fact that many times consumer decisions are impulsive or spontaneously determined at the point of sale (Szolnoki, Herrmann, & Hoffmann, 2010). In this sense, the use of observational methods during real purchases in simulated stores can be an interesting alternative to determine the relative importance of extrinsic attributes on consumers' wine purchase decisions (Sáenz-Navajas et al., 2013). This type of approach can provide a more natural and spontaneous evaluation of consumer behaviour than both direct and indirect questions.
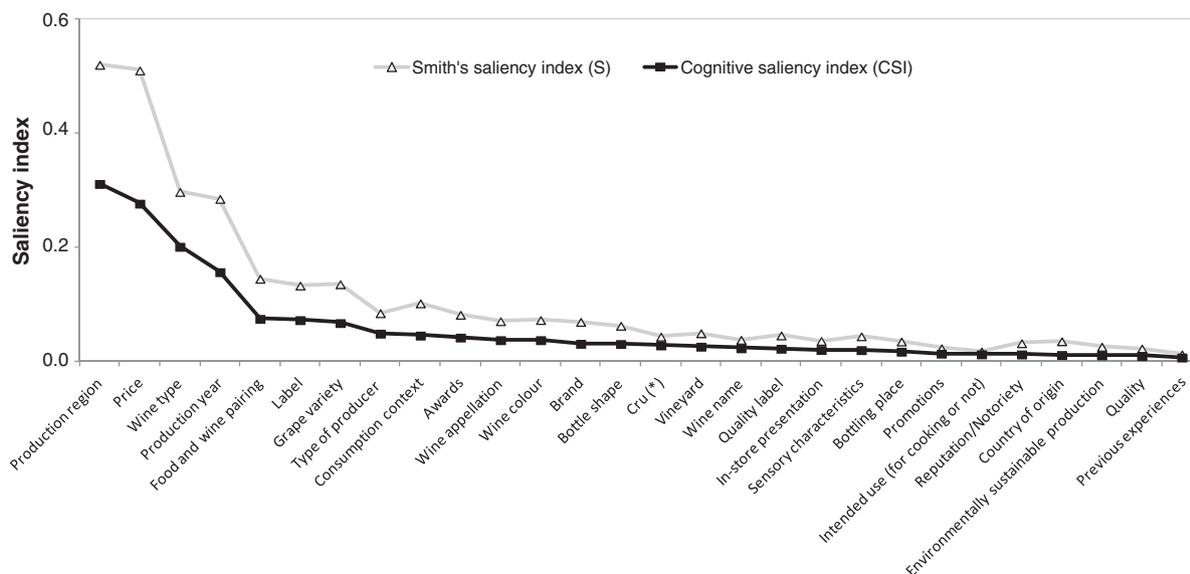

Fig. 1. Smith's and cognitive saliency indices of categories identified in free listing task for the whole consumer sample.
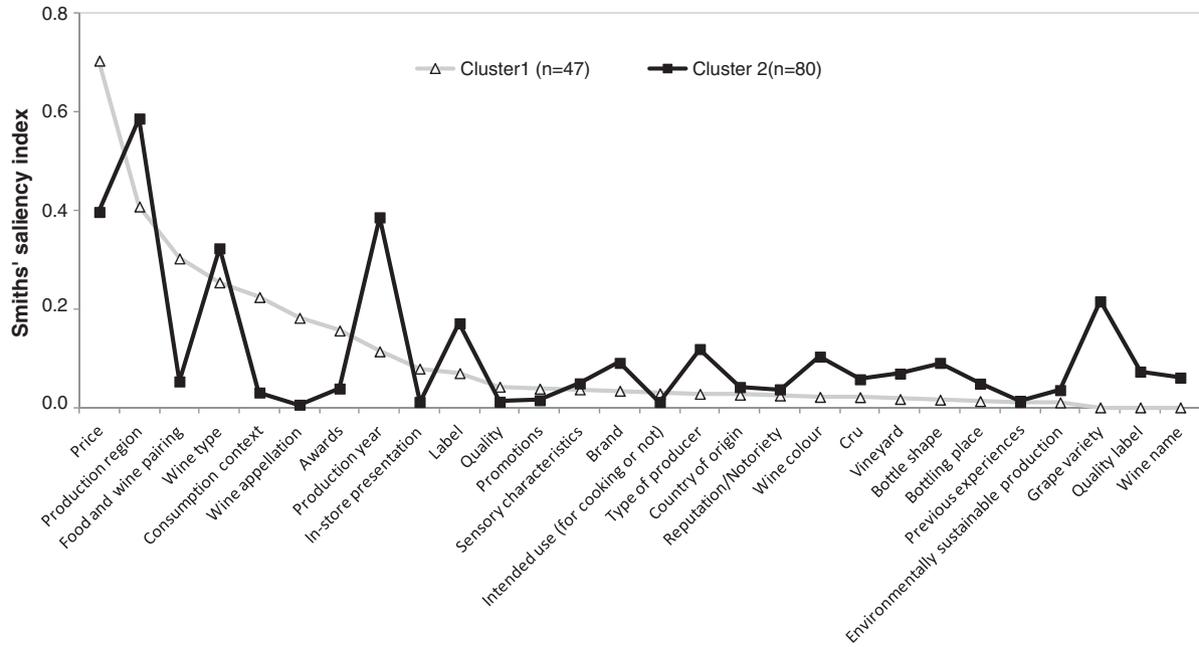
Fig. 2. Smith's saliency index of categories identified in free listing task for consumer segments found using cluster analysis.

Another relevant finding of the present work was the identification of two consumer segments with different motives underlying their wine purchase (Fig. 2). Cluster 1, mainly composed of young consumers

(Table 4), mentioned *Price, Production region, Food and wine pairing,* and *Consumption context* as the most important factors influencing their wine purchase. On the other hand, Cluster 2, formed by older

Table 4
Characteristics of consumer segments identified in cluster analysis.

	Cluster 1 (n = 47)	Cluster 2 (n = 80)	χ^2
Gender			0.62 [ns]
Female	55%	54%	
Male	45%	46%	
Age (years)			14.81***
20–35 (average: 27.9)	40%	26%	
36–50 (average: 41.9)	45%	25%	
51–70 (average: 60.5)	15%	49%	
Responsible for wine purchase			0.42[ns]
Consumer	74%	70%	
Consumer's partner	9%	10%	
Another family member	2%	2%	
Any person out of the household	0%	0%	
Consumers with their partners	4%	4%	
Wine is not purchase at this place	11%	14%	
Wine purchase frequency for a regular meal			6.5[ns]
Never	19%	15%	
Rarely	9%	18%	
Occasionally	34%	20%	
Often	15%	27%	
Very often	23%	20%	
Wine purchase frequency for an improved meal without guests			1.28[ns]
Never	15%	16%	
Rarely	19%	14%	
Occasionally	26%	32%	
Often	23%	24%	
Very often	17%	14%	
Wine purchase frequency for an improved meal with guests			13.40***
Never	13%	21%	
Rarely	15%	10%	
Occasionally	23%	26%	
Often	13%	30%	
Very often	36%	13%	
Wine consumption frequency			4.34[ns]
Occasionally	49%	39%	
Once or twice a week	40%	38%	
Almost everyday	9%	12%	
Everyday	2%	11%	

*** indicates significant difference at p < 0.001; [ns] indicates no significant difference at p < 0.05.

consumers, elicited *Production region*, *Price*, *Grape variety* and *Wine type* as the most salient attributes. Consumer differences in their motives underlying wine purchase have been identified in the literature and have been mainly related to differences in wine involvement. According to Quester and Smart (1996) and Jaeger et al. (2009), less involved (more naïve) consumers rely more heavily on price as an extrinsic quality cue than highly involved (less naïve) ones, due to the fact that they tend to make less cognitively demanding choices (Lockshin & Halstead, 2005). On the contrary, consumers with high involvement have been reported to mainly rely on grape variety, country of origin and region of origin (Hollebeek et al., 2007; Jaeger et al., 2009). Besides, Szolnoki et al. (2010) reported that younger inexperienced consumers mainly focused on packaging characteristics and did not pay attention to information presented on the label. Meanwhile, older consumers tended to base their wine purchase decisions on the latter attribute. The existence of consumer segments with different motives underlying their food choices stresses the need to design differential communication and marketing strategies.

5. Conclusions

This paper focused on an exploratory investigation of the attributes Burgundy consumers take into account when purchasing wine in retail stores. Price, production region, wine type and production year were identified as the main factors underlying wine purchases using a free listing task. Sustainable production was not a purchase motivation to the participants of the study. It may suggest that producers and/or public policy have to increase the interest of consumers for such production developing appropriate marketing strategies. Two consumer segments with different motives underlying their wine purchase were identified. The age distribution of these two segments was significantly differed. The cluster composed by a larger proportion of older consumers prioritized production region, price, grape variety and wine type when making their wine purchases, whereas the most important factors for young consumers were price, production region, food and wine pairing, and consumption context.

Although a significant number of respondents participated in the study, the analysis was restricted to Burgundy wine consumers. Thus, extending conclusions on the saliency of elicited terms to the French population as a whole should be taken with care.

Smith's and Cognitive saliency indices proved useful in selecting the core motives underlying consumers' wine purchase decisions, in agreement with results reported by Libertino et al. (2012). These two indices were more appropriate to determine the relevance of a category of elicited terms than frequency of mention and average order, separately. However, Smith's saliency index was more discriminative than Cognitive saliency index and allowed calculating individual saliency. Hierarchical cluster analysis, performed on individual Smith's saliency indices, proved to be a useful statistical tool for the identification of consumer segments with different motives underlying their wine purchase decisions.

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