

Consumer Emotions and Preferences: an empirical analysis in two Italian denomination of origin wines

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Introduction

Recent trends in food consumption show a tendency by the consumers to choose products with high intrinsic values [Frewer and van Trijp (2007)]. Factors such as health, product guarantees, organoleptic and hedonistic characteristics are not the only variables guiding the consumers' behaviour concerning wine and food products. Other intangible factors are becoming more and more relevant in the consumer purchasing processes especially for premium and top wines. They involve the environment, history, local traditions, cultivation and processing techniques, which define "terroir".

Old world wineries consider terroir as one of most sustainable competitive factors to gain commercial advantages in the global wine market. Today the consumers' willingness to pay is motivated by the selective characteristics and emotions connected to drinking. This creates particular emotions in the memory of the consumer. Moreover the connection between these elements and the certification of the product denomination of origin (PDO) is not fully supported by scientific evidence. This is the reason why not all the denomination of origin (DO) are successful on the market. In other terms the label of origin is not always sufficient to determine in the consumers mind the uniqueness of a wine even if it is protected by law.

On this basis the critical point concerns the consumers' ability to perceive the original elements of a wine and thus link them to the wines' "terroir". The relevant questions for researchers and professionals are how these emotions interact with the preferences in consumer choice processes and how to link all these elements with the intangible factors connected to the origins of the wine.

Consumer behaviour and the role of emotions in wine marketing

The new trends in food (and wine) consumption highlight the importance to investigate the relationship between emotions and consumption preferences.

The relationship between the market variables and consumer behaviour is still partially unexplored. The limits of the knowledge of wine consumer behaviour are defined by the role of the emotions and the consumption memory inside the consumer preferences scheme.

Although the emotions have been an interesting discussion topic inside the international scientific community, the knowledge of the role of emotions in the marketing field is still at the beginning.

As stated by Bagozzi (1999) emotions arise with their representation in memory and they have a specific referent, whether it is a person or a thing. Specifically, emotions arise in response to appraisals one makes for something of relevance to ones well-being. We need to consider that it is not the specific events or physical circumstances that produce the emotions but the unique psychological appraisal made by the person evaluating and interpreting the events and circumstances. This is the reason for which different people have different emotional reactions to the same event (or wine). At the same time it is important for market researchers to distinguish the way the memories between attitudes and emotions are recorded. While these attitudes (and

therefore the consumer preference schemes) have the capacity to be stored in the memory during long periods of time and then retrieved, emotions are not stored and retrieved alone but it is possible to recreate the conditions originally producing them in our memory. This shows the importance of emotions to generate positive attitudes towards products (wines).

Several studies have tried to measure emotions through an empirical approach, specially as a measurement of emotional in response to advertisement [Edell and Burke (1987), Halbrook and Batra (1987)] and the effect of various stimuli on consumer behaviour [Zajonc and Markus (1982)].

Other studies have pointed out that emotional reactions to advertisements influence consumer decision making. Batra and Ray (1986) affirmed that attitudes towards an advertisement is a function of feelings (and thoughts) about the advertisement itself. Moreover, and this seems to be right in the case of premium and top wines, it is presumable that high involvement promotes cognitive processing of the usefulness of the advertisement and its content. At the same time attitudes towards the brand is defined by the classic attitude theory as a function of beliefs about brand attributes or the consequences of product use. The linkage between the two attitudes has been also investigated in many studies [Mitchell and Oloson (1981), Shimp (1981), Edell and Burke (1987)]; the main results that have been found show that attitudes towards the advertisement provides additional explanatory power for the attitude towards the brand.

Some authors have discussed the relationship between consumer behaviour and emotions/feelings related to the DO. Van Ittersum (2002) argued that, if the affective feelings match the consumer goals, regional products are said to have an emotional value. He proved that positive emotions elicited by a PDO positively influences consumers' perception of the quality of those products as well as the consumers' intention to purchase them. Furthermore the taxonomy presented by Sheth *et al.* (1991) assumes that products with denomination of origin acquire an emotional value when associated with specific feelings or when they facilitate or perpetuate feelings.

At the same time it is important to note that the effect of the perceived quality on consumers' attitude towards the PDO is greater after repeated purchasing than during the first-trial purchase processes. The effect of consumers' sense linked to the region and the emotions related to the PDO instead seems to be greater during the first-trial purchases.

The advances of the state of art in the wine marketing field that this paper proposes is represented by testing a first-trial tasting method to quantify the weight of intrinsic factors considering consumer preferences.

Objectives and research methodology

Taking into account the recent trends in food and wine consumption and considering the power of emotions to build consumers' attitude towards products, this paper analyses the interactions between consumer emotions and preferences related to two significant denomination of origin wines.

The analysis is focused on two case studies: Amarone of Valpolicella DOC and Soave DOC¹. These are representative of the wine scenario in Veneto², both for product positioning and the quantitative point of view. Amarone is a high quality wine drunk on special occasions and for

¹ DOC is the Italian label to indicate WDO.

² Veneto, located in the north east of Italy, is the second wine Region in Italy, which produce 15% of Italian wine.

meditation and reflection. It is an extreme, strong highly flavoured red wine. On the other hand, Soave is a light white wine frequently drunk on many different occasions. In 2007, these two DOC covered 42% of the whole DOC production of Veneto and 8% of the Italian DOC production.

Related to the general aim presented above, this study tries to understand if the segmentation based on traditional parameters (such as product knowledge, social-demographic characteristics, the consumption frequency and occasion) is able to group the sample also taking into account the emotional aspects linked to the wines. The way in which the intrinsic components related to wine preferences is affected by consumer characteristics are also discussed.

Many studies in the market research field have investigated the brand influences in the consumers' preference processes. Here are seen if consumers are conscious of the brands impact inside their own wine preferences and how this influence varies in relation to consumer wine knowledge. At the same time the role of intrinsic factors related to Amarone and Soave wines inside the consumers' consumption memory has been examined.

Four focus group were made in order to carry out the objectives of the research, involving 50 people residing in and around Verona were selected by age, sex, education and family characteristics.

The first focus group was composed of 13 people under 40, the second one by 13 people over 40, the third and fourth were of mixed age groups.

The focus groups were structured in two parts. In the first part, people were given a questionnaire to complete which they could not compare. The questionnaire was constructed to gather information concerning: a) social-demographic characteristics; b) wine knowledge; c) consumption frequency of the surveyed wines; d) purchasing criteria.

In the second part the focus group collected information about: i) perceptions linked to wine; ii) associations between immaterial factors, consumption memory and product features; iii) a sensory evaluation test regarding six Amarone and six Soave DOC wines. They were selected in order to represent different positioning on the market.

The statistical elaboration of information was conducted by the Nonlinear Principal Components Analysis to highlight hidden dimensions that summarize consumer behaviour and preferences. The Cluster Analysis was used to characterize homogeneous typologies of the consumers.

The application of Nonlinear Principal Components Analysis allowed the consideration of nominal, ordinal and numerical variables simultaneously and to highlight structural relationships between variables, subjects and between variables and subjects [De Leeuw, van Rijckevorsel (1980); De Leeuw (1982)]. These relationships led to the construction of a three-dimensional (3D) map, where the subjects were selected both by the variables and the levels with which single attributes are evaluated. This 3D map allowed the characterization of homogeneous behaviour regarding the dimensions and the segmentation of the sample.

It was carried out by the non-hierarchical procedure "K-means Cluster Analysis", using factorial scores of previous analysis linked to each subject. The number of groups was determined by comparing the Euclidean distance matrix of different classification processes. This led to the choice of a four-cluster solution.

The analysis of different characteristics of clusters were also made though the comparison between the means of the variables of the groups, by the Independent-Samples T Test.

Results discussion

The main characteristics of the sample in relation to social-demographic variables, wine knowledge and perceptions linked to wines are summarized in Tables 1 and 2.

With reference to social-demographic variables the sample is composed of subjects with balanced characteristics of age, sex, education and family characteristics.

The analysis of wine knowledge highlights the difficulties in attributing the right meaning to the acronyms of wine territorial denomination. In fact, if 80% of the sample knew the meaning of DOC, this percentage diminishes to 44% for DOCG and 24% for IGT³.

As regards factors which can evoke consumption memory and explain product characteristics, the intrinsic and objective aspects of wine (scent, colour and flavour) prevail on the immaterial extrinsic elements (territory, culture).

Regarding the emotional factors, three points emerge concerning the well-being: the health, the psycho-social fulfilment created by wine and the harmony with food.

Table 1 – Characteristics of the sample

<i>Variables</i>	<i>Frequency</i>	
	<i>n.</i>	<i>%</i>
<i>Age</i>		
under 40	23	46.0
over 40	27	54.0
<i>Sex</i>		
male	26	52.0
female	24	48.0
<i>Education</i>		
compulsory education	9	18.0
high school	26	52.0
university	15	30.0
<i>Civil status</i>		
single	25	50.0
married	25	50.0
<i>Knowledge of the meaning of:</i>		
DOC	40	80.0
DOCG	22	44.0
IGT	12	24.0
<i>Main three indicated factors that:</i>		
- <i>Evoke consumption memory</i>		
scent	31	62.0
culture	21	42.0
colour	20	40.0
- <i>Explain product characteristics</i>		
smell	28	56.0
flavour	26	52.0
territory	24	48.0
- <i>Evoke emotions</i>		
harmony with food	39	78.0
social status	27	54.0
health	19	38.0

³ In Italy, the PDO for wines are regulated by the national law n.164/92. It fixes three levels of certifications for origin appellation (IGT, DOC, DOCG), with a growing guarantee levels, moving from IGT to DOCG.

Table 2 shows that, both for Amarone and Soave, price and experience are the most important purchasing criteria, preceded by brand reputation. But the sample shows a limited knowledge of the brands, particularly these from Soave. The knowledge of the participants is mainly focused on few brands of high reputation.

Even though the subjects know about the product characteristics (particularly the alcoholic degrees), the table shows that they are not able to link the wines to the correct territorial denomination. Thus even if every person came from Verona or the neighbouring zones.

As regards consumption frequency, the consumption of Soave is more frequent than that of Amarone.

Table 2 – Characteristics of the sample related to Amarone and Soave

	Frequency			
	AMARONE		SOAVE	
	n.	%	n.	%
<i>Main three used purchasing criteria:</i>				
brand reputation	29	58.0	28	56.0
price	20	40.0	18	36.0
experience	15	30.0	20	40.0
<i>Knowledge:</i>				
- of the presence of a denomination				
no	5	10.0	5	10.0
yes	27	54.0	25	50.0
- of the right denomination	18	36.0	20	40.0
- of the alcoholic degrees	31	62.0	31	62.0
<i>Indication of:</i>				
any brand	15	30.0	22	44.0
1 brand	11	22.0	11	22.0
2 brands	4	8.0	9	18.0
3 brands	20	40.0	8	16.0
<i>Consumption frequency:</i>				
never	1	2.0	2	4.0
less than once a year	5	10.0	4	8.0
at least once a year	13	26.0	6	12.0
at least once in six months	13	26.0	5	10.0
at least once in three months	12	24.0	10	20.0
at least once a month	4	8.0	10	20.0
more than once a month	2	4.0	13	26.0

The elaboration of such information was made in two steps. The first step involved social-demographic, aptitude and behavioural variables, in order to identify the most relevant factors in discriminating the consumption behaviour and to cluster the sample. In the second step, the check of differentiation of these clusters was made even from an emotional point of view.

In the first step, primarily the nonlinear principal components analysis was applied. 15 variables summarizing subjects' characteristics were selected. These variables have been subdivided in four groups: 1) social-demographic aspects (age, education, sex, civil status); 2) wine and brand knowledge (the meaning of DOC, DOCG, IGT, of Amarone and Soave); 3) adopted purchasing criteria (price, brand reputation, cru, information on the back of the label, packaging, experience,

certifications); 4) consumption frequency of Amarone and Soave. This analysis allowed the extraction of three factorial dimensions which explain the 56% of the variance (Table 3).

The first dimension is called the "Purchasing criteria" and it explains 23% of the variance. It highlights that the main differentiation element is represented by the criteria adopted in the purchasing of a bottle of Amarone and Soave wines. Particularly, this dimension puts into opposition the consumers that make use of their knowledge to the consumers that prefer the objective feature of the product. The first group bases its choice on experience and brand reputation and use price as a important balancing element. Instead packaging, certifications and the back of the label are the most important elements for the second group.

The second dimension explains 19% of the variance and is called the "Characteristics of the consumer and wine". It shows that, with the increasing of the consumer's age, it is obviously more probable that he or she could be married, but could be less educated. Moreover, it is interesting to note that with the lowering of the age, the relevance of the cru also decreases.

The third dimension (14% of explained variance) is defined "Propensity to knowledge and frequency in the male consumer" and it shows that the wine knowledge and the consumption frequency are widespread in the male population.

Table 3 – Matrix of the factorial scores linked to dimensions and variables

	Dimension 1 "Purchasing criteria"	Dimension 2 "Characteristics of the consumer and wine"	Dimension 3 "Propensity to knowledge and frequency in the male consumer"
<i>Social-demographic characteristics:</i>			
age	0.169	-0.779	0.264
education	-0.113	0.728	0.238
sex	-0.061	0.161	0.617
civil status	0.098	-0.757	0.402
<i>Knowledge:</i>			
of the meaning of DOC, DOCG, IGT	-0.361	0.292	0.639
of Amarone e Soave	0.375	-0.254	0.272
of the brand of Amarone and Soave	-0.247	-0.026	0.571
<i>Consumption frequency of Amarone and Soave</i>	0.245	-0.172	0.543
<i>Purchasing criteria:</i>			
price	-0.535	-0.408	-0.335
brand reputation	-0.795	-0.204	0.219
cru	-0.048	0.692	-0.023
information on the back of the label	0.682	0.389	0.283
packaging	0.843	0.110	-0.137
experience	-0.719	-0.078	-0.156
certifications	0.628	-0.362	-0.123
Explained variance	23%	19%	14%

The cluster analysis was made by using factorial scores of each subject and it individualized four homogeneous groups of consumers.

The optimal number of clusters has been defined comparing Euclidean distances between the centre of clusters of different solutions (2, 3, 4, 5, 6, cluster).

Table 4 shows the scores of the centres of clusters. Cluster 1 is marked by the factorial dimension “Characteristics of wine and consumer” and in contrast with Cluster 2 for dimension “Purchasing criteria”.

Cluster 3 is also characterised by Dimension 2. It differentiated from the previous two clusters because it is composed of younger subjects.

Cluster 4 is distinguished by the dimension “Propensity to knowledge and frequency in the male consumer”.

Table 4 – Centres of clusters

	Cluster 1	Cluster 2	Cluster 3	Cluster 4
Purchasing criteria	0.724	-1.053	0.260	-0.103
Characteristics of the consumer and wine	-0.845	-0.939	0.847	0.725
Propensity to knowledge and frequency in male consumer	0.265	-1.045	-0.784	1.011

Table 6 shows a synthetic description of the characteristics of the clusters.

Table 6 – Segmentation of the sample of consumers

	Cluster 1 Mature traditionalists	Cluster 2 Label oriented women	Cluster 3 Beginner young women	Cluster 4 Connoisseur young men
Male	46.6%	25.0%	28.5%	92.3%
Mean age	62	44	27	35
Education level	middle-low	middle-low	middle-high	middle-high
Married	86.6%	62.5 %	7.1 %	46.1 %
Wine knowledge	low	middle-high	middle-low	high
Consumption frequency	middle-high	low	low	middle-high
Purchasing criteria	1) cru; 2) brand reputation; 3) price.	1) cru; 2) information on the back of the label; 3) certifications.	1) brand reputation; 2) experience; 3) price.	1) brand reputation; 2) price; 3) experience.

Syntetic profiles:

Cluster 1, the “Mature traditionalists”, forms 30% of the sample. It includes the oldest subjects, with a middle-low education level, little wine knowledge and middle-high consumption frequency. They are influenced by cru, brand reputation and the price of the wine.

Cluster 2, the “Label oriented woman”, forms 16% of the sample. It comprises middle-aged females, with middle-high wine knowledge, but low consumption frequency. They are influenced by cru, information on the back of the label and quality certifications.

Cluster 3 forms 28% of the sample. It includes the “Beginner young women”, single, with middle-high education level. These subjects have middle-low wine knowledge and low consumption frequency of Amarone and Soave wine. They are influenced by brand reputation, consumption experience and the price.

Cluster 4 includes the “Connoisseur young men” (26% of the sample). They are male, average age 35 years old and they have middle-high education level, a good level of wine knowledge and consumption frequency. This cluster is influenced by brand reputation, consumption experience and price.

The Independent-Sample T Test has been applied in order to compare the emotions which have been expressed by the clusters. This analysis tested whether the mean of every single emotional variables for subject in one cluster differs from that in another cluster (Table 7).

Table 7 – Emotional variables characterizing clusters

Mature traditionalists	Label oriented women	Beginner young women	Connoisseur young men
Landscape Communication	Price Brand Seminars	Price Territory Flavour	-

Note: the Independent-Sample T Test has been used; all the variables have a significance level $\alpha < 0.05$

A certain homogeneity between clusters appears by the analysis of consumption memory. They indicated that scent is the most important evocation factor.

The culture and the landscape are also important, even if the “Mature traditionalists” consider the last aspect less relevant.

Every individual thinks that the territory, the flavour and the smell are very important product characteristics, but the “Beginner young women” give more relevance to the flavour, compared to the territory.

Moreover, the clusters which are predominant female (“Label oriented women” and “Beginner young women”) consider that the price does not determine the quality of the wine.

The brand is most important for women of Cluster 2.

Every cluster considers that the harmony with food is the most important factor that evoke emotions.

The guide to consumption is very important too. It means for the “Label oriented women” the participation of seminars and for the “Mature traditionalists” take notice of different media.

The sensory evaluation test concerned six brands of Amarone and six of Soave. For each type of wine there was one high, three middle and two low reputation brands.

The components of the focus groups gave a wine liking judgment through a cardinal scale from 0 to 10, in the first testing the label was covered and in the second it was uncovered.

The subsequent analysis of the information has been done through two steps:

- 1) The spreads between uncovered and covered label scores have been calculated;
- 2) The mean of these spreads have been determined for each level of brand reputation (Table 4).

Table 4 – Means of the spread scores

	Mature traditionalists	Label oriented women	Beginner young women	Connoisseur young men	Total
High reputation brands	1.86	0.73	1.04	0.63	1.14
Middle reputation brands	0.68	0.62	0.48	0.69	0.62
Low reputation brands	-0.47	-0.49	-0.27	-0.32	-0.38

The obtained scores highlight the overvaluation of high reputation brands and the undervaluation of the less known brands. This confirms that the value of the immaterial brand characteristics is important, because it provides a valuation element of quality perceived by the consumer.

Analyzing the judgment of every single cluster, a more weighted judgment for high reputation brands appears from the “Connoisseur young men”. This could be explained by the wine knowledge of this cluster. This thesis is also supported by the higher overvaluation of the “Mature traditionalists”.

Concerning the middle and low brand reputation, the “beginner young women” on one hand are the lowest wine connoisseur and expressed less confidence in the choice, on the other hand, they prove to be the less influenced by brand reputation.

Therefore, the knowledge reveals opposing effects. It weights the judgment of those who have knowledge, and it does not influence the judgment of those who are not knowledgeable.

Conclusions

The research shows that the traditional parameters for market segmentation influence the wine knowledge, consumption frequency and wine purchasing criteria, but they are not able to clearly differentiate consumers in relation to emotions derived from the drinking of wine. In fact, there are common characteristics linked to the territory of origin and to the specific wine features.

Moreover, brand reputation proves to be a major intrinsic factor which influences the choice of the consumers in buying Amarone and Soave wines. The greater the knowledge of the consumer the less they are influenced by the brand reputation and viceversa. At the same time consumers are conscious of being influenced by brand marketing.

Contemplating the consumption memory, the objective characteristics of a wine (smell, colour, taste) have appeared more important than the immaterial components linked to wine denomination of origin (countryside, farming of the vines, culture, etc).

The results of the research were similar to those foreseen at the birth of the concept of trial test tasting. The research has highlighted the following points to be taken into consideration for future works which could include:

- a model that analyses more diverse emotions precisely;
- the exportation of the model in other scenarios, with different kind of wine, both national and international;
- the inter-exchange of research between different academic fields to improve research techniques;
- the analysis of the different aspects of brand reputation in relation to consumer preferences.

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