Wine Consumer Behaviour in selected points of sale of the Italian Major Retailing Trade

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Abstract

As the world wine market and the number of producers competing for a share in that market increases, it has become more important for producers, both small and large, to understand the needs and behaviour of the consumers toward wine in order to better target the consumers by specific products and marketing campaigns. This paper presents the results of a survey on wine consumers in selected Italian markets. In the first part of the paper we present a description of the preferences, purchasing criteria, buying procedures and attitudes towards wines. Then a Multiple Correspondence Analysis is used in order to define consumer's segments based on the questionnaire items. Finally we develop an ordered logistic regression relating the frequency of consumption of each wine buyers to their socio-demographic characteristics and controlling also for some variables related to the consumer habits.

Production in the wine sector is an outstanding business in Italy, playing a much more complex role than the mere food production. It represents an expression of consumer behavioural styles, as well as a symbolic business for certain local rural entities, with economic, social, and environmental implications that reach beyond the boundaries of the supply chain and of the whole sector.
In spite of the success characterizing the wine sector in Italy, a clear and dynamic competitive growth can still be observed, both with respect to domestic markets and to exports, in some emerging extra-European countries that, supported also by ever-changing consumer preferences.
Consequently, as the world wine market and the number of producers competing for a share in that market increases, it has become more important for producers, both small and large; to understand the needs and behaviour of the consumers toward wine in order to better target the consumers by specific products and marketing campaigns.
Utilization of qualitative data to understand consumer behaviour is becoming more prevalent, especially in United States and Australia where a growing literature on this field can be found. In Italy, on the other side, only a small body of literature has been produced (i.e. Marangon and Troiano, 2003; Berni, Bagalli and Capitello, 2005).
This paper represents an attempt to explore consumer perceptions and attitudes towards wines using qualitative data on a consumer based market survey performed in selected points of sale of the Italian Major Retailing Trade.
Specifically, the analysis has two directions: one toward the examination of the wine purchasing behavior process, in particular the factors contributing to the selection of a particular wine and the other toward the exploration of wine market segmentation by identifying different types of wine consumers.

The Italian Market

Italy has a total domestic wine-grape growing surface of over 675,000 hectares, including 35% for the production of DOC and DOCG wines, and 65% for common and IGT wines[1]. The sector involves approximately 770,000 companies: while 90% of these produce common or IGT wines, only 14% produce DOC/DOCG wines.
It is worth highlighting a steady decline in production, as well as in surfaces, vs. a clear quality improvement. In fact, DOC/DOCG-wine production in all the regions has significantly increased, although this index is not strictly referred to quality. The share of domestic DOC/ DOCG-wine production grew from 1/7 to 1/3 of the total wine production in the past few years.
In the commercial area, the purchase of DOC-DOCG wines recorded a steady growth in the past decade in Italy. This was countered by a decline in the consumption of common wines, falling from 30 million hectolitres in the early 1990’s to approximately 20 million hectolitres at the present day. This trend resulted into a general decline in wine consumption, which fell to 29 million hectolitres vs. more than 35 million hectolitres ten years ago.
The global turnover of the wine sector amounts to an estimated 8,000 million EUR, with domestic production accounting, on average, for 21% of the world production and for 34% of the EU’s production. The whole wealth of the wine chain (also including the value of the equipment and infrastructures involved in the production of wines, spirits, distilled liquors, and

[1] DOC: Controlled Designation of Origin; DOCT: Qualified Designation of Origin; Igt: Typical Geographic Indication (translator’s note).

balsamic vinegar) is close to 50 million EUR, with 1.2 million people involved in the wine-related sector, including distribution.
A review of the consumption breakdown highlights that 70% of the total production is consumed within the country and 30% is exported, equal to 16.8% of the total exports of the agro-food sector.
In terms of food consumption, the expense for wines and alcoholic beverages accounts for approximately 4.5% of the total food and beverage expense of Italian households. This figure points out to a slight decrease in terms of global demand, while a strong growth is observed in terms of prices: this shows the growing preference for qualified wines.
Fifty-five percent of the still and sparkling wines consumed in Italy were bought in the main Modern Distribution formats, i.e. supermarkets and hypermarkets. The Traditional Food Outlets and Wine-Shops sector ranks second, with a 17% share. The role of wine-shops, in particular, is extremely important, in that they account for 10% of total purchases, thus competing with discount shops, which account for 11%, as the second most important procurement source after supermarkets and hypermarkets.
Cash&carry outlets/wholesalers/own outlets account for 7%, while self-consumption accounts for a mere 3%.
For packaged wines in particular, Modern Distribution plays an even more significant role. Supermarkets and hypermarkets, in fact, sell more than 65% of bottled wines in Italy, with peaks of 71% for DOC-DOCG wines in particular.
Thus Modern Distribution leaves little room to traditional food outlets, which account for only 11% of packaged product purchases, with 6% attributable to wine-cellars and wine-shops, thus demonstrating the growing qualification of supermarkets as outlets.
The ranking of the procurement channels is obviously opposite for unbottled wine. In this case, 45% of purchases occur in traditional food outlets, with 28% represented by the wine-cellar/wine-shop channel. Cash&carry outlets/wholesalers/own outlets play a significant role with a 34% share, including direct sales made by the producing companies.
As to distribution, wine products are sold in approximately 7-thousand large-scale outlets, as well as in about 5-thousand smaller businesses specializing in the trading of such products.
In conclusion, Italy can rely on more than 6-million consumers of qualified wine (mostly in the 26 to 45 age group), who increasingly demand and consume high-quality products, buy guides and specialized magazines, attend wine-shops and wine-bars, and devote their week-ends to the discovery of regions rich in artistic, historical, and environmental beauties, as well as in wine outlets. But the wine sector has a much wider target of 24 million regular Italian consumers, including as many as 16 million with wine stocks.

Data and Methods

The department of Agricultural Economics and Land Resources with the support of “IRI-MCA” group performed a consumer based market survey in 14 points of sale among 7 banners (HM+SM) in three different Italian regions (Lombardy, Tuscany and Lazio). The final sample consisted of 442 wine consumers, interviewed right after their purchase in the wine shelf space, in order to be able to catch their perceptions and behaviors concerning the product they bought, and their general attitudes towards the whole wine category.
Table 1 shows the distribution of the basic socio-demographic characteristics of the respondents. Out of 400 respondents that completed questionnaires, 63% are male and 37% female. Most of the wine buyers belong to the 30-49 age class, are married, tend to live in families of three components and are born in the centre of Italy. The regional origin of buyers could be considered as an important factor that influences the consumers’ choice of wines, such as the household dimension. In fact we might assert that the larger it is, the more wine it

will be purchased. Moreover, about the whole sample (80%) has a high educational level and consequently only 11% of the respondents declares of being in bad economic conditions. The education level has in general a little influence on consumption frequency, but graduate consumers are however more likely to be wine experts than non-graduate ones. Anyway, half of the shoppers show reluctance to purchase very high priced wines (i.e. wine of more than eleven euros) in despite of associated quality levels.

Table 1

Sample socio-demographic characteristics

VARIABLES	%
Gender	
male	63.1
female	36.9
Age	
16-29	9.6
30-49	53.8
50-64	26.8
65+	9.9
Married	78.5
Residence	
north Italy	18.8
centre Italy	43.3
south Italy	35.0
Europe	2.9
High education	75.5
Subjective well-being	
low	11.5
medium	40.3
high	48.2
Household dimension	
1	9.3
2	27.6
3	32.1
4+	31.0

Main descriptive results

As regards the consumer behaviour (results shown in Table 2), we found that most respondents drink wine almost every day (54.7%), purchase it several times a month (46%) and they usually buy from four to seven wine bottles monthly (37.1%). About 70% of the consumers prefer to purchase wine from supermarket, while the rest prefer specialist shops. Moreover, drinking with the whole family seems to be the main purchasing occasion. About 81% of the whole sample is very predetermined in their purchase, in other words these consumers know which wine to buy before entering the market (from now on we decided to call the latter respondents “planned purchaser”). However, even if most of the respondents declare of being very interested about wine, and curious to know more about its characteristics, 67% of them, the so called “usual buyers”, seem of having fixed habits and purchasing always the same kind of wine, usually the wine they have already tasted and they are used to drink along with meals.

Table 2

Consumer behaviour characteristics

VARIABLES	%
Freq. of wine consumption	
every day	55.2
1/2 day a week	29.4
some times a month	11.0
seldom	4.4
Freq. of wine purchase	
once a week	39.1
several times a month	46.0
once a month	9.4
seldom	5.5
Wine bottles purchased in a month	
7+	25.0
4-7	37.1
2/3	31.9
< 2	6.0
Abitual place of purchase	
supermarket	69.5
specialist wine shop	30.5
Usual buyer	66.9
Planned purchaser	81.1
Occasion of purchase	
to drink with friends	19.1
to drink with family	40.3
to offer somebody	6.9
no particular occasion	29.5
other	4.2
Wine expertise level	
quelified expert	10.7
expert	56.1
disinterested	33.2

In order to better understand how and why consumers make purchase decisions in the wine category, we analyse the information from the questionnaire on the factors that might influence the consumer buying process (table 3). In particular, before entering the market the respondents seem to be mostly determined to purchase wine of a particular colour (31%), of a known brand (28.5 %) and finally about 18% of the consumers are influenced by the occasion at which the wine will be consumed. Once in the wine department, colour, again, seems to be the most important factor driving the consumers' wine research, followed by the habitual position of wine on the shelf and by the brand. In both the latter process the insignificance of price might reveal that this factor does not greatly influence consumers in their first phases of the purchase decision process. After having restricted the attention on few kind of wines all respondents go trough a more accurate wine-selection process. The entire sample examines the product information and packaging by reading both the wine label and the information on the shelf. At this stage of the decision criterion process, price is the attribute who receives most of the entire consumer's attention albeit it is not the unique attribute determining the final consumers' choice. In last the step of the buying process, the brand seems to be the ultimate purchasing reason for 30% of the respondents, followed by the habitual wine (22.95) and the colour (11.9%). Thus, both the price and the brand might be considered as the two key factors influencing the final purchasing decision. Nonetheless, consumers may use price as an indicator to reduce the risk within the purchase decision and therefore as a product cue comparable to brand (Halstead, 2002).

Table 3

Consumer purchasing decision

VARIABLES	%
Purchasing intentions	
colour	31.0
brand	28.5
particular occasion	18.1
price	2.6
other	19.3
Research criterions	
colour	34.1
brand	14.4
price	5.3
bottle	9.1
abitual position	15.2
other	22.0
Information on the label/shelf	
colour	14.4
brand	20.2
region	6.7
price	40.4
other	18.3
Purchasing reasons	
colour	11.9
brand	30.5
region	6.8
food	5.1
price	6.8
habitual wine	22.9
other	16.1

Once considering the principal attributes of the purchased wines, we found that most of the sample prefers red (68%), vqprd (DOCG, DOC and IGT), and low priced wines (49%). Moreover, the origin of 37% of the purchased wines is Tuscany and Chianti is the principal brand chosen by the respondents among the other known brands. (Table 4)

Table 4

Wine attributes

VARIABLES	%
Price	
0-|3	48.9
3-|5	30.8
5-|10	14.3
11+	6.0
Colour	
red	68.3
white	31.7
VQPRD	72.5
Tuscany	37.4
Brand	
chianti	14.6
barbera	2.2
lambrusco	3.9
s.giovese	3.6
other	75.8

Finally, consumers' characteristics and attitudes toward wines broken were analysed together with correlation and other descriptive tables based on both the respondents and the wines attributes in order to obtain a first descriptive segmentation of the wine consumers (results not shown here).
As expected higher price levels of wine are associated with higher subjective well-being and negatively associated with larger households. About 24% of living alone consumers versus 5% of consumers living in households of two components buy most expensive wines, this result might reflect the fact of the general higher propensity of people living in large families, than the single, to save money in relation to a different trade off between household income level and the family expenditure needs.
The majority of the respondents, which declare of consuming wine everyday, appear also to be those who purchase it once a week (60%) and who usually buy the same kind of wine (57%). In addition, most of these frequently "users" prefer low priced wines and the occasion of consumption is along meals with the whole family. For these last kinds of consumers, wines with high market shares rather than high quality ones might hold the most resonance.

Multivariate analysis

In the previous descriptive analysis we have highlighted the socio-demographic differences in relation to the wine attributes among the purchasers and a number of factors which have been shown to be important in the purchasing decisions of the wine buyers. These include brand, the price, origin and few others... However, we also believe to be relevant the identification of key consumer segments based on the different psychological profiles, different product preferences and consumption patterns.

In order to investigate the individual elements that drive consumer acceptance for a particular wine, we decided to identify consumers profile by means of the widely used multivariate analysis known as Multiple Correspondence Analysis (MCA). MCA is a useful technique for the structural analysis of multivariate categorical data (Greenacre, 1984; De Leeuw, 1984). It in fact helps to disentangle the relationships and structure behind the variables in the data. This technique assigns scores to rows (representing the subjects) and columns (representing the item categories) of a data matrix, yielding a graphical display of the rows and the columns of the matrix representing the interdependences among the variables. The graphical display facilitates the intuitive understanding of the relationships among the categories of the variables; items within the same category are in fact represented close to each other, whereas variables in different categories are plotted far apart.
Since we had a lot of categorical variables from the questionnaire we tried to optimise the combination of all the items in order to best interpret the relationships between the consumers' socio-demographic characteristics and their attitudes toward wine. In detail, the variables selected to create the consumer profile, together with the graphical results are provided in figure 1. The analysis is performed using the SPSS statistical software.
We found the two-dimensional analysis the best choice to represent the set of points and to facilitate the interpretation of the results. Both the two dimensions were related to the variables used in the analysis however, the first dimension was mostly affected by the frequency of wine consumption and purchase and to the level of expertise; the second dimension, to the predetermination of buying the wine before entering the market, and to the wine attributes (i.e. price and brand). Moreover, the two dimensions together accounted for about 40% of the total variability in the data. Given the complexity behind the factors influencing consumer behaviour towards wine, the variability captured by the two dimension could be considered acceptable since it allows us to distinguish quite distinct consumers' groups.
It was in fact possible to clear identify items relationships from the graph that illustrated category quantification (figure 1). The positioning of the categories was related to the mean score of the respondents that gave identical answers to the same questions. It is important mentioning that the origin of the axes acts as centre of gravity for all the data analysed. It represents the average profile. Therefore, the proximities are interpreted more easily than the outskirts of the graph, whereas the distance is greater from the mean profile (baricentre) (De Leeuw, 1984; Greenacre, 1993).
From the graph we detected four relevant groups of consumers, each group characterized by common behaviour toward wine:
Female-disinterested: the female consumers, who usually go to the market to do the shopping for the whole family, who declare to be indifferent about wine attributes and they principally purchase wine on the behalf of the partners. From the correlations tables most of the females seem in fact to not purchase wine frequently. They do wine purchases at supermarkets and in their purchase decision strong price limits are considered. For this group, neither brand nor quality is considered as particular factor of influence.
Consumers of fixed habits: are those respondents, especially male, married, who prefer to purchase low priced wine and don't show any particular preference for specific brand. They seem to not be interested in experiencing new brands. Indeed they always prefer to purchase the same known wine usually consumed at meals. They get prepared for shopping more than the others since they have a shopping list and they are more loyal to Major Retailing Trade than to other channels like wine shop. This particular behaviour, could suggest classifying the respondents as a segment of highly '*risk-sensitive*' consumers, to the extent that the way they choose wine is mainly driven by risk-reducing strategies (Mitchell and Greatorex, 1989; Lockshin and Halstead, 2005). Moreover, this group of respondents, which also correspond to

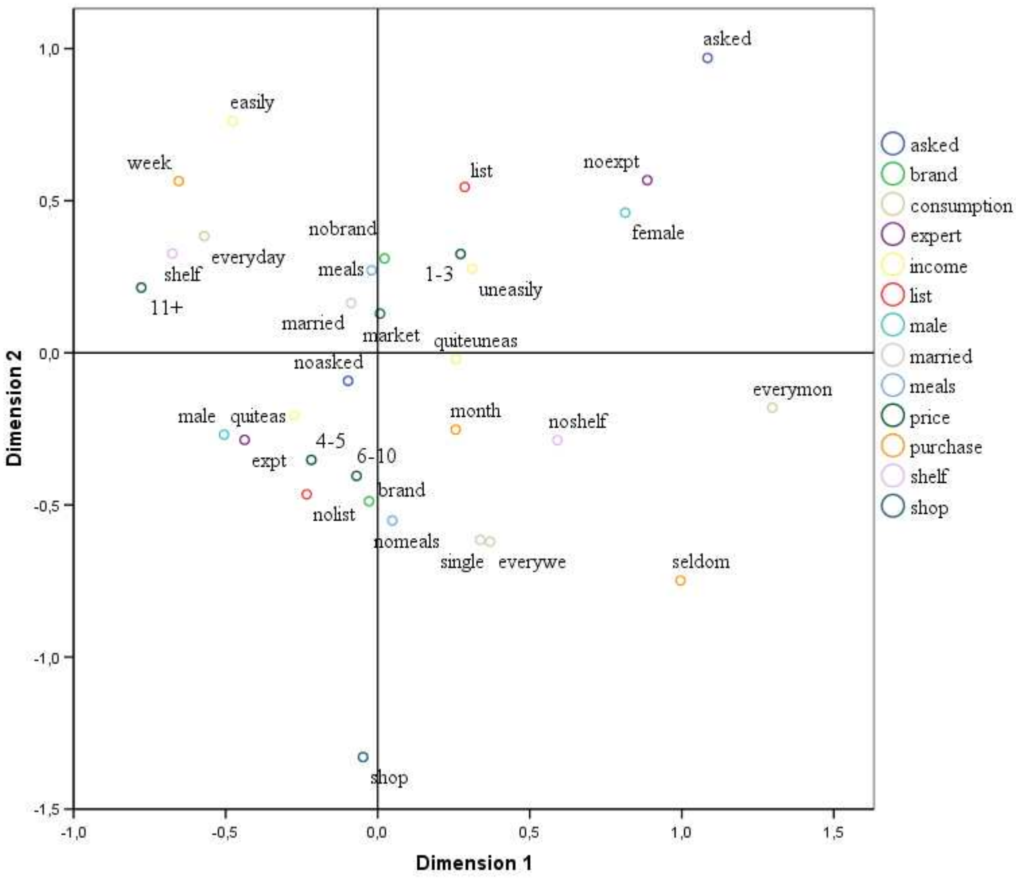
the largest one, is really close to the centre of the axis, thus it might considered representing the average consumer profile resulting from the survey and already emerged from the former descriptive analysis. For instance, it is quite interesting to note that most of our respondents purchase wine more frequently in supermarkets and hypermarkets. Thus, the role of special wine shop is not very significant for this consumer group.

The Self-fulfilment Oriented: they either purchase or consume wine frequently. They declare to be fully satisfied of their financial situation and consequently they often prefer to buy expensive wines. Price, among the other attributes, seems to be considered the most direct indicator for good quality. Nonetheless, their purchase decision seems to be a complex process, influenced also by a number of other factors. From the descriptive analysis they, in fact, tend to spend more time than the other respondents in front of the wine shelf. Probably for them the information contained on the label is very important; they might want to know the association between wine and particular dishes, what is the proper way for the consumption of that wine, or they might spend time looking for a specific wine (for party, to offer somebody etc.). This behaviour might reveal a high predetermination level in purchasing the wine category before entering the market.

The qualified: they purchase quality wines and consider their selves as good experts. Their needs are high and well articulated, wine attributes are of great significance to them, among all, brand seems the most important one when choosing wine. They tend to not purchase wines which have been previously tasted, suggesting that they like discovering via unknown brands. In addition to hypermarkets they often purchase in wine boutiques. From their demographical classification they generally are young people with higher educational background and high personal incomes, living mostly as singles.

In terms of wine consumption these last two groups can be considered as having a number of “positive properties”. First, they are frequent wine purchasers. They do not deny themselves good wines and they are ready to spend a lot for a bottle of wine. Consequently, in view of their wine purchase attitudes there is the market expectation that these two groups would growth in the future.

Figure 1. *Homogeneity analysis- Category quantification graph*



Legend:

Asked (sent by the partner to purchase wine): asked (yes) noasked (no)
Brand (wine attribute which drove the consumer purchase): brand (brand) nobrand (other attributes)
Consumption (frequency of consumption): everyday (every day) everywe (every week) everymo (every month)
Expert (wine expert/lover): expt (expert) noexpt (no expert)
List (wine in the shopping list): list (yes) nolist (no)
Male (sex): male, female
Married: married, single
Meals (purchase the wine used to drink at meals): meals (yes) nomeals (no)
Price (wine price classes in euros): 1-|3, 3-|5, 5-|10, 11+
Purchase (frequency of purchase): week (every week) month (every month) seldom (seldom)
Shelf (stop at the wine shelf when go shopping): shelf (yes) noshelf (no)
Shop (purchase wine at specialist shop): shop (yes) market (no)

The relationship between frequency of consumption and consumer attributes

From the latter analysis frequency of consumption of wine emerged as an important variable to discriminate among consumer profiles. Thus, we decide to use the information on the frequency of consumption to better understand the relationship of this variable with the respondents' socio-demographic characteristics.
Our key dependent variable derives from a question of the frequency of consumption of wine. The discrete answer varies on a three position scale: from "once a month or less" to "every day".
We adopted an ordinal logistic regression model to relate the ordinal dependent variables to selected characteristics of the respondents by means of STATA statistical package.
This methodology applied in this study, considers an individual *i* and his frequency of wine consumption y_i^*. In addition, the individual consumption is assumed to be determined by individual characteristics, x_i. Furthermore we assume that the frequency of consumption is a linear function of these characteristics x_i:

$$y_i^* = \beta_0 + \beta_1 x_i + \varepsilon_i$$

where β are coefficients that measure the impact of the characteristics x_i on the dependent variable y_i^*, ε_i is a normally distributed random error with mean 0 and variance σ_ε, capturing non-measured and non-measurable effects on y_i^*.
However, y_i^*, is a latent variable that is not directly observable. What we observe is the individual's response to a question on frequency of consumption, expressed through *S* ordered labels (in our case S=3). Thus the observed level y_i is analysed as a categorical ordered response variable and is assumed to be related to what we really want to measure, the latent variable y_i^*, in the following way:

$$y_i = s \text{ if } k_{s-1} < y_i^* \le k_s$$

where $s = 1,....,S$ is the number of response categories and k_s are ordered thresholds, which are estimated empirically. The equation states simply that if the individual consumption y_i^* lies between k_{s-1} and k_s, the response to the consumption question will be *s* ($y_i = s$).
The probability, for a given individual *i* that $y_i = s$, conditional on β and k, is given by:

$$\Pr ob(y_i = s / \beta) = prob(k_{s-1} < z_i \le k_s) = \frac{1}{1+\exp\left(-k_s + \sum \beta_1 x_i\right)} - \frac{1}{1+\exp\left(-k_{s-1} + \sum \beta_1 x_i\right)}$$

where:

$$z_i = \beta_0 + \beta_1 x_i + \varepsilon_i$$

We tried to fit different models with different set of covariates using a stepwise procedure. Finally only seven variables were selected, all of them resulting to be statistically significant. Table 5 provides the coefficients for the final ordinal model in terms of odds-ratios. These latter are the cumulative odds of belonging to a certain category or higher versus belonging to one of the lower categories of the ordinal dependent variable.
As expected, the "heavy consumers" are both those respondents declaring of being a wine expert, and who usually drink the same wines at meals. Moreover the odds of consuming wine most frequently versus consuming it rarely are about three times higher for the married and those respondents born in north of Italy and about one and half higher for consumers perceiving a good financial situation.

Table 5

Odds Ratios for the ordinal logistic regression

Variables	OR	Std. Err.
expert	2.04	0.49
with family	1.70	0.38
north	2.89	0.95
south	1.69	0.42
married	3.55	0.93
high income	1.51	0.36
usualbuyer	2.01	0.72

Final Remarks

The findings of this study suggest that a wide range of factors influence the consumers' purchase process.
Regarding the wine attributes, the results seem to confirm what has already been demonstrated in previous findings: two of the key selection criteria in the final phase of the wine purchasing process are price and brand. Indeed, we suggest that this last result may partly be influenced by subjective factors such as the level of product experience and knowledge that the individual consumer has, the frequency of wine consumption, and so on. Consumers might also change their decision-making criteria depending on the occasion they buy the wine for, with whom they usually drink it, etc.
Finally, on the basis of all individuals and wine attributes, our research allowed defining four distinctive market segments.
In a moment of high market competition this result could be useful to the different wine producer competitors since it offers various opportunities for improving their marketing and marketing communication strategy. In fact the key wine determinants influencing the purchasing process such as brand and pricing and the consumer segments outlined in this study are very important and of particular interest within the wine market. In most FMCG markets, there are usually a small number of highly dominant competitors, which capture a large percentage of market share and therefore a high degree of repeat purchase. One of the key factors that differentiate the wine market from many others is the lack of large and dominant brands; where a wine or range of wines is positioned, distributed, communicated and packaged under a single name with a recognisable identity.
Consequently, by taking the above mentioned elements into consideration, producers can be better able to meet the expectations of consumers and differentiate the marketing.
However, given that consumers' attitudes is a multidimensional concept comprising psychological feelings and objective characteristics, trying to find the right way to identify all of its determinants is still a difficult task, nonetheless our department is nowadays working on integrating the results of this study with other sources of information and other statistical instruments.

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