Wine demand in Italy: an analysis of consumer preferences

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Introduction

For several reasons, interest is growing on wine demand and wine consumer behaviour. As a consequence of the increased level of competitiveness in wine markets, companies need to acquire information about their customers' requests. The consumer knowledge is at the basis of the success of New World's wines and it is at the basis of the recently reformed Wine Common Market Organization, which is aimed at enhancing the European wine sector competitiveness. Secondarily, consumption patterns and demand have undergone a deep transformation in the last few decades. Finally, knowledge and ability to forecast demand are essential to overcome the European over-production problems and identify strategies to be followed by European producers in order to face their overseas competitors.

Wine issues are particularly relevant in Italy, where the wine sector plays an important role in the national economy: it accounts for 10% of the food industry turnover and wine is the product generating the biggest import volumes. Three quarters of the Italian wine production are absorbed by the internal market, which is vital for numerous economic and political operators.

The objective of this work is to study and understand the Italian wine consumer behaviour, focusing on the effects of wine attributes and on certain socio-economic traits of con-

Abstract

This study examines the consumer preferences for wine attributes. Previous research indicates that directly observable attributes are particularly relevant. A choice experiment has been carried out on 444 wine buyers in North-Eastern Italy, simulating the choice of a wine for ordinary consumption, at a supermarket. The presence of DOC or IGT designations of origin, a known brand and the indication of the grapevine variety on the label increase the choice probability and are all associated with a positive WTP. The price has a smaller influence than other attributes and its relationship with utility is quadratic. The private label only slightly affects the consumer choices, with a negative or positive effect depending on the wine initial price.

Keywords: wine, consumers' behaviour, demand analysis, quality, choice experiment.

Résumé

Cette étude analyse les préférences des consommateurs vis-à-vis des caractéristiques propres au vin. D'après une précédente recherche, seules les caractéristiques qui peuvent être directement observées jouent un rôle particulièrement important. Nous avons appliqué la méthode des expériences de choix sur 444 acheteurs de vin en Italie du nord-est en simulant le choix au supermarché d'un vin pour la consommation quotidienne. La probabilité d'acheter un vin donné augment si le vin est AOP ou IGT, s'il est d'une marque ben connue et si sur son étiquette il y a l'indication de la variété d'origine. Ces trois caractéristiques ont une influence positive sur le consentement à payer des consommateurs. Par rapport aux autres attributs, le prix du vin a une moindre influence est sa relation avec l'utilité est quadratique. L'étiquette du producteur n'a qu'une légère influence sur les choix des consommateurs, avec des effets négatifs ou positifs d'après le prix initial du vin.

Mots-clés: vin, comportement des consommateurs, analyse de la demande, qualité, méthode des expériences de choix.

sumers. A short description of wine markets will be followed by the presentation of a survey, carried out in Italy, which included a choice experiment.

The survey highlights trends similar to those shown by market data and also some rather unexpected results. The presence of DOC or IGT designations of origin, the indication of the grapevine variety on the label and a certain degree of producer notoriety are all factors that positively influence the consumer purchasing choices. Utility as a function of price is concave, increasing for low prices and decreasing for high prices; willingness to pay for the qualitative attributes has been estimated starting from this relationship, and resulted positive in most cases. Results also show that certain individual characteristics affect the consumer structure of preferences.

1. Wine markets

Main trends

Throughout the world, wine markets are changing. Their structure and development are affected by several factors, like the impressive increase in international exchanges and the progress of a group of non-European producing countries, often referred to as "New World" countries.

On the demand side, trends strongly differ among countries. France, Italy and Portugal still boast the highest per-capita wine consumption levels, notwithstanding the steady decrease they underwent during the last decades; a second

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group of countries, located in Central and Eastern Europe, consume smaller but anyway significant volumes of wine, with moderate variations occurred over the last few years; many Northern European and non-European countries, whose demand is growing, represent relevant import markets.

In spite of these differences, it can be argued that different market typologies are slowly converging towards quite similar consumption patterns. In traditional wine producing and consuming countries, the function of wine has been changing from nutrition to pleasure; it is consumed on special occasions and represents a sort of status symbol, leading to a more occasional drinking. In some cases, the proportion of drinkers in the population has slightly been falling. Opposite trends have characterized the new markets, where wine has become more popular and the number of drinkers has increased.

Moreover, market segmentation is growing in all countries, partly as a result of the growing product differentiation, partly because variation in individual taste increases, while differences across geographic, demographic and economic variables tend to diminish (Senauer, 2001; Fabris, 2003). It can be stated that variability is growing within countries and decreasing across them.

Everywhere, wine demand is moving towards quality products: in traditional markets, this is associated with the new function of wine and with the fall in consumption, whilst in new markets, the development of better product knowledge implies a raise in the quality awareness.

Wine attributes and wine quality

Quality is nowadays a central issue for wine producers and consumers. It is impossible to unambiguously define wine quality, because of the complexity of the product, the large number of attributes that characterize it and subjectivity of judgments. The relationship between wine attributes and perceived quality and/or willingness-to-pay has often been studied, but conclusions depend on the hypotheses, the methods and the context of each particular analysis.

It is possible to group wine attributes into three broad categories: sensorial attributes, reputation attributes and objective attributes. The former are the closest to intrinsic quality, but are not available to the consumer before consumption; they are not very relevant to consumer evaluations. Reputation represents expectations about wine quality, derived by past experience with a wine's brand, producer (individual reputation), and designation of origin (collective reputation). Reputation seems to significantly affect the consumer choices. Objective attributes are the information written on the label. The most commonly used objective attributes are price, grapevine variety, origin, designation of origin, producer or bottler's brand. Objective attributes have often resulted to be the main purchasing criteria and were chosen for the choice experiment described in the next paragraph. The importance of the brand, in the wine market, seems to be smaller than in the case of other goods, possibly due to the large number of attributes that define the

product and to the small concentration in the wine sector (Jarvis *et al.*, 2003); brand belongs more to the reputation attributes category than to the objective attributes one.

The hedonic prices method has been extensively applied to study the relative importance of wine attributes: in France, Combris *et al.* (1997, 2000) and Lecocq and Visser (2006) analyse sensorial and objective attributes (colour, vintage and appellations ranking) and find out that the latter are much more relevant. Benfratello *et al.* (2004) analyse objective variables (vintage, appellation and alcoholic content), reputation and sensorial variables with the hedonic prices approach on Piedmont wines: results do not offer a straightforward interpretation, although reputation seems to predominate. In other hedonic prices applications, objective attributes (Landon and Smith, 1998, for Bordeaux wines), grapevine variety and the region of origin (Schamel, 2000, 2006, in America; Schamel and Anderson, 2003, in Oceania) are treated as collective reputation indicators and result to be significant.

It should nevertheless be remarked that the hedonic prices technique allows the estimation of the weight of attributes on prices, which are assumed to be an index of consumer appreciation. This relationship is not obvious. It is possible, for instance, that reputation, usually measured by wine guides evaluations, affects prices to a larger extent than it affects consumer choices.

Choice modelling techniques have the advantage of evaluating the effect of attributes directly on the purchasing choices. Their applications to the wine market are growing.

In Spain, choice experiments by Mtimet and Albisu (2006) and by Martìnez-Carrasco *et al.* (2006) indicate that the most important attributes are designation of origin and ageing, followed by price. Lai *et al.* (2006), in Sardinia, use a contingent ranking analysis to find that the designation of origin predominates (vintage-ageing was not considered). Perrouty *et al.* (2006), based on a sample of consumers located in four different European countries, conclude that price, origin and bottler are the most important attributes and emphasize the role of interactions amongst attributes, especially between origin and brand; they did not include the designation of origin.

A geographical heterogeneity in the way attributes are used by consumer seems to exist. In Europe, the most important attribute appears to be the designation of origin, as shown by different studies that employed different methodologies: Angulo *et al.* (2000), through hedonic prices, prove that Spanish wines' prices strongly depend on the designation; Skuras and Vakrou (2002) perform a contingent valuation in Greece, which also highlights the relevance of the designation. Old World consumers relate quality to the region of origin and to tradition and identify the appellation as a warranty of these aspects.

In countries that are new to wine consumption, the consumer's low familiarity with the product and the lack of a national production lead to look for easily identifiable qual-

ity signals, possibly directly connected to wine taste: the producer's brand and the indication of the grapevine variety emerge as the most widely used attributes (Jarvis *et al.*, 2003). These attributes are also imposing upon the youngest Old World consumers, promoted by the supermarkets growth as wine retail channel.

Although an attempt has been made to identify common trends and generalise results, it must be acknowledged that studies do not agree in their conclusions. The relationship between wine attributes and consumer preferences is still not clear. Italy lacks a comprehensive literature on these issues and most works only take into account wines belonging to a particular appellation or geographical area. Therefore, there is need to investigate habits and preferences of Italian consumers and their concept of wine quality.

2. Methodology

The survey

A survey has been carried out to identify and quantify the effects of some key wine attributes and certain individual characteristics on the consumers' choice.

The target population consisted of wine buyers in northern-eastern Italy. Intercept surveys through questionnaires were carried out in February and March 2007, in selected supermarkets and shopping centres. The final sample resulted from a two-stage sampling: 1) a reasoned sample of five points of sale, located in Bologna and in Udine province, in urban, suburban and rural areas; 2) a simple random sample of respondents within each point of sale. The interviewer location and words, as well as the interviews days and times, have been carefully selected to minimize bias (Sudman, 1980). The choice experiment included in the questionnaires requires a sample size between 390 and 448 (5% confidence level, same choice probability for each profile; Hensher *et al.*, 2005). 444 valid questionnaires were collected.

Each questionnaire consisted of three sections: the first one explores purchasing and consumption behaviours and motivations; the second one is the choice experiment; the third one investigates involvement, objective knowledge and socio-economic characteristics. Involvement has been proven to affect consumption, willingness-to-pay, openness to innovation (Dodd *et al.*, 1996; Goldsmith and D'Hauteville, 1998; De Luca and Vinelli, 2003). Involvement was measured with a five-point Likert scale with four items, adapted from Lockshin *et al.* (1997), who modified the original Mittal and Lee (1989) construct. Objective knowledge (Brucks, 1985) was measured with four *ad hoc* questions.

Choice experiments

Choice experiments (Louviere and Hensher, 1982; Louviere and Woodworth, 1983) are a typology of choice mod-

elling aiming to the monetary evaluation of a product and its attributes, through stated choices. In the second section of the questionnaire, respondents were presented with eight choice sets, each containing three alternative profiles of a bottle of wine. They were asked to imagine them shopping at a supermarket, buying a bottle of wine for being drunk at home with their family, and to indicate which wine they would choose. Product profiles were described by four attributes, shown in table 1.

Table 1 – *The choice experiment attributes.*

attribute	level
Presence of DOC or IGT designation	Present, absent
Price	1€; 3€; 5€; 7€
Producer brand notoriety level	Unknown; known within its region; known all over Italy; private label
Indication of the grapevine variety on the label	Present, absent

According to the random utility theory (Thurnstone, 1927; McFadden, 1974), probability to choose a product is proportional to the utility yielded by that product. Therefore, the probability to choose alternative *j* from a choice set equals the probability that the level of utility produced by *j* exceeds the one produced by all the other alternatives *i* in . In other words: $P_j(X_j, C_n) = P(U_j \geq U_i)$ for each $i \in C_n, i \neq j$. Assuming that utility is made up of a deterministic component and a random component ε_j, it can be stated that:

$$P_j(X_j, C_n) = P\left[\varepsilon_i \leq (V_j - V_i + \varepsilon_j)\right] .$$

The stochastic terms are unknown by definition. It can be assumed that they follow an extreme value type 1 or Gumbel distribution (McFadden, 1974), so that the probability of choosing alternative *j* is described by the multinomial model

$$P_j(X_j, C_n) = \frac{\exp(V_j)}{\sum_{i=1}^{J} \exp(V_i)}$$

The deterministic component of utility, V_i, depends on the product and on the consumer characteristics.

V_i can be specified in many ways, generating a number of models. Four models have been estimated in the thesis:
- Main effects only: V_i is an additive function of the attributes:

$$V_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$$

(X_1, X_2, X_3, X_4 represent the four attributes shown in the previous table);
- Main effects + second order interactions among product attributes;
- Main effects + second order interactions among product attributes + second order interactions among each product attribute and each individual variable (sex, age, quantity of wine daily consumed, involvement, objective knowledge);
- The fourth model contains the same variables as the third, but it is separately estimated on occasional and frequent drinkers, rather than on the whole sample.

The attribute "price" can be coded either as a numeric continuous variable or with three dummy variables (using

1€ as base level and the dummy coding procedure, Hensher *et al.*, 2005). Each of the four models was estimated with the price coded in both ways, resulting in eight different models (Hertzberg, 2008).

The knowledge of the relationship between price and utility enables the estimation of the willingness-to-pay for each attribute. The formula that is usually found in literature is derived from a linear additive model. However, the relationship between price and utility is quadratic rather than linear: it was therefore calculated a new expression for the willingness-to-pay for an attribute as a function of price, resulting in a quadratic function, continuous for three of the four attributes (Hertzberg, 2008).

3. Results

Socio-economic characteristics, behaviours and opinions.

The sample is representative of the population resident in Northern-Eastern Italy under most demographic variables; the only discrepancy is that the proportion of people aged between 20 and 60 is higher in the sample than in the actual population. Habitual drinkers, i.e. those who drink more than three times per week, make up 54% of the sample.

Table 2 illustrates consumption and purchasing behaviours frequencies.

Strong associations between purchasing and consumption patterns and some demographic traits, particularly age, have been detected. Associations with economic factors like income or professional status are weaker and less frequent.

The age distribution is particularly interesting. Under the hypothesis that younger people behaviour portrays the future evolution of the market, some trends observed in the last few years are confirmed:

a sharp fall in consumption: younger generations drink less and less frequently;

a shift of preferences for quality products; younger respondents were more likely to buy bottled DOC wine; although this represents the preferred type of wine in most age groups, as age increases it becomes less popular; respondents over 70 buy bulk and/or non DOC wine more often than bottled and DOC wine. Also the inverse relationship between age and average price spent for a bottle of wine corroborate the preference for quality products among young people;

Multiple retailers' share of wine sales is increasing: although the supermarket was the most popular purchase format for all age groups, its weight is larger for respondents under 40.

It should be remarked that 54% of respondents do not usually purchase wine at multiple retailers: this proves that, although the survey took place in supermarkets, the sample also includes consumers buying wine somewhere else, as initially assumed.

As for opinions, taste is the attribute that mostly affects choice. At the moment of purchase, taste is usually available only for known products, so that it can only lead to repeated purchases. Offering the chance to taste before buying appears to be an effective way to induce the purchase of new products.

Respondents' opinions about the most effective way to promote wine purchases confirm the importance of taste: friends' advice and pre-tasting, which enable to know taste beforehand, were chosen by 65% of respondents, whereas the information on the label (origin, grape varieties, vintage, etc.) gathered only 14% of the preferences.

Brand advertising does not look very effective, either because it does not suit the product wine, or because the existing wine advertising is currently ineffective. It could also be a consequence of the relatively scarce level of wine advertising in Italy, due to the producer's small average size.

The choice experiment

The most important results drawn by the choice experiment are:

1) *The information about grapevine variety, a brand known either in the wine-producing region or in Italy, the*

Table 2 – *Consumptin and purchasing behaviours in the sample (n = 444).*

	Frequency	Percentage
Weekly consumption frequency		
never	8	2%
less than 1	78	18%
1-2	119	27%
3-5	81	18%
6-7	158	36%
Wine glasses per week		
less than 1	73	16%
1-2	64	14%
3-5	98	22%
6-14	126	28%
15-28	65	15%
more than 28	18	4%
Type of wine usually puchased		
bottled, DOC	260	59%
bottled, non DOC	59	13%
in bulk, DOC	63	14%
in bulk, non DOC	50	11%
in carton or cardboard	14	3%
Average price/bottle of the usually purchased wine		
less than 1.5€	33	7%
1.5-3€	101	23%
3-4.5€	114	26%
4.5-6€	103	23%
6-7.5€	47	11%
more than 7.5€	46	10%
Main supply chain		
supermarket	204	46%
producer	166	37%
specialized shop	54	12%
traditional food shops	12	3%
miscellaneous	7	2%
missing	1	0%

Graph 1 – *Willingness-to-pay for four of the attributes considered in the choice experiment.*
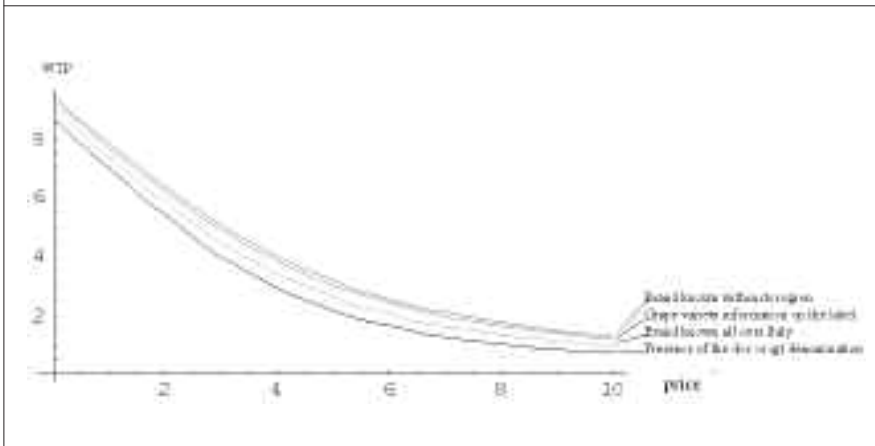
presence of DOC or IGT designations are the attributes that mostly affect the consumer choice. Behind their understandable differences, all the six models estimated on the whole sample give more importance to these attributes. The willingness-to-pay for them is always positive and decreasing with price, as shown by Graph 1.

Graph 1. Willingness-to-pay for four of the attributes considered in the choice experiment

2) *The private label does not seem to significantly affect utility.*

Interaction effects and the willingness-to-pay for the PL show that for low prices (less than 2 €), the private label has a positive effect, for prices between 2 and 5€ no effect is detected, while a weak negative influence appears for prices above 5€.

3) *Price is almost always important, although its coefficients are smaller than the ones belonging to other attributes.* Although the price effect appears smaller than in previous choice experiments on wine (Mtimet and Albisu, 2006, Perrouty *et al.*, 2006), but similar in typology, an optimal price exists and the consumer's utility gradually decreases as the price gets farther away from the optimal price. The price that yields maximum utility, i.e. the optimum, lies between 3.5 and 4€, depending on the specification adopted. The optimal price estimated on the segment of habitual drinkers alone is about 1€ less than the segment of occasional drinkers (2.9 vs. 3.9€).

4) *The association between the appellation of origin and other attributes has a negative impact on consumer utility.* One possible reason for this is that the process that generates utility from the product attributes is subject to decreasing returns to scale: the utility yielded by wine that possess both the appella-

tion and another qualitative cue is smaller than the sum of the utilities of two wines that possess the same attributes, but disjointed.

5) *Frequency of consumption, age, degree of product knowledge and of involvement are the individual variables that mostly affect the consumer's preferences.* Habitual, young drinkers, with a good degree of product knowledge seem to be attracted by the presence of a designation of origin; occasional non-involved consumers highly evaluate a brand known all over the country; occasional, aged drinkers with a medium-low degree of involvement are the typology that better appreciates the private label.

Table 3 – *Estimation results on the two segments of habitual and occasional drinkers, with dummy coded price.*

	occasional consumers				habitual consumers			
variable	coef. sig.	dev. st.	z	P>|z|	coef. sig.	dev. st.	z	P>|z|
doc	0.973 ***	0.251	3.880	0.000	1.216 ***	0.258	4.710	0.000
var	2.016 ***	0.255	7.890	0.000	1.779 ***	0.270	6.590	0.000
mar1	2.608 ***	0.461	5.660	0.000	0.750	0.520	1.440	0.149
mar2	2.249 ***	0.551	4.080	0.000	1.872 ***	0.591	3.170	0.002
mar3	1.472 **	0.612	2.410	0.016	0.555	0.676	0.820	0.409
pr3	0.917 ***	0.227	4.040	0.000	0.332 *	0.195	1.700	0.089
pr5	0.343	0.238	1.440	0.150	-0.387	0.248	-1.560	0.119
pr7	0.091	0.325	0.280	0.780	-0.392	0.372	-1.050	0.292
docxvar	-0.363 **	0.149	-2.430	0.015	-0.600 ***	0.135	-4.430	0.000
docxmar1	-0.313 *	0.181	-1.720	0.085	-0.326 **	0.160	-2.030	0.042
docxmar2	-0.281	0.177	-1.590	0.112	-0.480 ***	0.156	-3.080	0.002
docxpr3	-0.611 ***	0.195	-3.140	0.002	-0.347 **	0.173	-2.000	0.045
varxmar3	-0.122	0.105	-1.160	0.244	-0.138	0.100	-1.380	0.167
varxpr7	-0.045	0.211	-0.210	0.832	-0.835 ***	0.193	-4.340	0.000
mar2xpr3	0.277	0.227	1.220	0.222	0.321	0.195	1.650	0.100
mar3xpr5	-0.739 ***	0.242	-3.050	0.002	-0.459 **	0.214	-2.040	0.042
docxota	-0.022	0.047	-0.480	0.629	-0.107 ***	0.037	-2.860	0.004
varxota	-0.132 **	0.052	-2.530	0.011	-0.061	0.041	-1.490	0.135
mar3xota	0.146 **	0.065	2.240	0.025	0.070	0.053	1.320	0.188
pr7xota	-0.039	0.061	-0.640	0.522	-0.106 *	0.055	-1.930	0.053
docxcons	0.216 ***	0.054	3.970	0.000	0.226 ***	0.044	5.080	0.000
varxcons	0.095	0.062	1.520	0.128	0.147 ***	0.049	2.970	0.003
mar1xcons	0.102	0.085	1.210	0.227	0.093	0.066	1.400	0.161
mar3xcons	-0.150 *	0.084	-1.790	0.074	-0.094	0.071	-1.330	0.185
pr3xcons	-0.023	0.084	-0.270	0.788	0.211 ***	0.066	3.180	0.001
pr5xcons	0.026	0.094	0.270	0.785	0.453 ***	0.076	5.990	0.000
pr7xcons	0.088	0.090	0.970	0.330	0.577 ***	0.079	7.310	0.000
mar1xcoinv	-0.399 ***	0.146	-2.730	0.006	0.095	0.140	0.680	0.497
mar2xcoinv	-0.238	0.179	-1.330	0.185	-0.182	0.165	-1.100	0.270
mar3xcoinv	-0.444 **	0.186	-2.380	0.017	-0.193	0.174	-1.110	0.268
varxquant	-0.023 ***	0.009	-2.620	0.009	-0.010 **	0.004	-2.360	0.018
pr5xquant	0.002	0.013	0.120	0.901	-0.022 ***	0.006	-3.590	0.000
pr7xquant	0.005	0.010	0.530	0.594	-0.012 **	0.006	-2.010	0.045
pr3xsex	-0.048	0.089	-0.540	0.592	-0.268 ***	0.080	-3.360	0.001

*= significant at the 10% level; **= significant at the 5% level; ***= significant at the 1% level.
Occasional consumers: log likelihood=-1364.9401; Pseudo-R2= 0.2424; LR chi2 (18) = 873.57; Prob > chi2= 0.0000; convergence after 4 iterations. Frequent consumers: log likelihood=-1646.8601; Pseudo-R2= 0.2160; LR chi2 (18) = 907.37; Prob > chi2= 0.0000; convergence after 4 iterations.
Legend
mar1 = brand known to all Italian consumers; mar2= brand only known in its production region; mar3= private label.
(brand variables coefficients indicate the difference between the utility yielded by a wine whose brand is unknown and a wine whose brand corresponds to that represented by the variable).
pr3= 3 € price; pr5= 5 € price; pr7= 7 € price;
(price variables coefficients indicate the difference between the utility yielded by a 1€ wine and a wine whose price corresponds to that indicated by the variable).
DOC = presence of DOC or IGT designations of origin (coefficients indicate the difference between the utility yielded by a table wine and the one of a DOC or IGT wine).
var = indication of the grapevine variety on the label (coefficients indicate the difference between the utility yielded by a wine whose grapevine variety is written on the label and the utility yielded by a wine whose label does not contain this information).

Table 3 shows the estimation results for one of the eight models. It is the fourth specification, with all the significant variables and interactions, separately estimated on the two segments of habitual and occasional drinkers. These results exemplify some of the elements that have just been highlighted. They also show that occasional consumers tend to separately consider attributes, while habitual consumers, who are probably more experienced, use interactions. This phenomenon was already pointed out by Perrouty *et al*. (2006).

Conclusions

The study highlighted new and relevant information about wine consumer behaviour in North-Eastern Italy.

The survey is remarkably general: it did not impose constraints about wine type, origin or colour; its main limits are the geographical coverage and, for the choice experiment, the context of the simulated choice. Most of previous works on Italian wine consumers are highly specific in their extent and validity.

The choice experiment confirms the results of other studies, mainly carried out abroad: the most relevant attributes for consumer choices are the firm reputation (represented by the producer's brand), the region of origin, the designation of origin and objective information, like the grapevine variety.

The interest in the kind of *grapes* and the preference for a *locally known producer* can be interpreted in various ways. Jointly considered, they might show attention to wine origin, production techniques, *terroir*. The opinions expressed during the interviews suggest that this concern might come either from a cultural-hedonistic curiosity towards wine, or from worries regarding food safety. The preference for locally known producers is certainly related with the widespread habit of buying wine directly at the wineries (37% of respondents), which implies trust towards a supplier. Trust is also crucial when facing food safety scares.

Information about the grapevine variety can also be seen as the most accessible signal to infer wine taste. Back label information is facultative, hard to read and possibly hard to understand for non-expert consumers. Moreover, attention to grapevine variety grows as age diminishes and could represent an upcoming trend.

The function of the *designation of origin* overlaps to the function of grapevine variety and brand: designation guarantees wine quality, determines the grapevine variety, suggests organoleptic quality and is obviously connected to the *terroir*. However, designation is often estimated to be less relevant than brand and grapevine variety, possibly because it is less accessible. In fact interaction effects show that the designation of origin acquires higher weight when it is associated to a certain degree of product knowledge and, amongst habitual drinkers, to greater experience.

Results from this research strongly differ from previous works because of the low importance attributed to *price*, which has often been identified as one of the main quality signals. Many reasons could lead to this divergence: wine diffusion and knowledge in Italy are larger than in Anglo-Saxon countries, so that Italian consumers could be able to use other attributes to infer quality, with no need to rely on price; moreover the decision to focus, in this study, on ordinary consumption, excluding special occasions, could have limited the importance of selecting a quality product.

The curve of utility as a function of price has already been found to be parabolic in a couple of choice experiments, carried out abroad, but no evidence had so long been found for Italy.

Coefficients show that private labels are not appreciated in the wine Italian market, differently from other countries. Maybe in Italy wine is too strongly related to tradition and to a local dimension and is not considered a major food retailer product; it could also be that the Italian wine market is still not ready for this kind of branding, or that wine private labels currently lack effective promotion and information.

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