Consumers' Wine Preferences in a Changing Scenario

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Abstract

Purpose:

Important socioeconomic changes have been undergone due to the international economic crisis. In Catalonia (Spain), political changes towards independentism also occurred within the same period. In our research we have explored the consumers' wine preferences in Catalonia in two different scenarios. In particular, we have focused our interest in those preferences regarding the regional origin of the wine.

Design/methodology/approach:

Data was elicited from two identical Discrete Choice Experiments performed in two times: before (2008) and during the economic crisis (2010) in Catalonia, Spain.

Findings:

The results imply that the external common circumstances may have had a homogenising influence in consumer choices by decreasing the level of randomness of consumers' selection. Consumers' preferences for a Catalan origin were enhanced during the crisis, while price became the most important attribute.

Research limitations:

Ideally, the participants involved in both experiments would have been the same. Unfortunately, this was not possible to maintain and it is one of the limitations of this study. We are also aware that other non-controlled variables may have also played a role and the conclusions that are driven should be taken carefully.

Originality/value:

This paper contributes to the literature of the Discrete Choice Modelling (DCM) using the recently developed Generalised Multinomial Logit Model (GMNL). To our knowledge this is the first application in the literature of wine preferences to measure the impact of the contextual changes (economic and political) in Catalonia (Spain).

KEY WORDS: Consumer preferences, Wine, Choice Experiment, Generalized Multinomial Logit model, Socioeconomic changes.

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1. Introduction and objectives

1.1. Catalonia as a Wine Region

Worldwide, Spain usually ranks as the third wine producing country after Italy and France. Furthermore, it has recently become the largest world exporter in volume, with 22.6 million hectolitres in 2014, which represented 21.8% of the world's wine exports (International Organisation of Vine and Wine, 2015).

The vineyard is a key crop for sustainable development in many areas of Spain. It contributes to the economy, to the territorial balance and to the maintenance of the landscape; while offering a product linked to the Spanish culture and diet.

Catalonia accounts up to 7.53% of the production of wine in Spain, which is more than 3.2 million hectolitres (average 2011-15) (Spanish Ministry of Agriculture, Food and Environment, 2015a). Its main specialised areas are located in the provinces of Barcelona and Tarragona, and they account for more than 90% of the Cava (sparkling wine) produced in Spain (DO Cava; DO for designation of origin). Therefore, in Catalonia, the wine sector also accounts for an important fraction of the agriculture and the food industry of the country (Kallas et al. 2012). Its production is highly specialized in quality wines: more than 90% of the grape-growing surface is inscribed within one of the 12 Designations of Origin (DO) that exist in the region (Statistical Institute of Catalonia, 2009).

However, the household wine consumption in Catalonia shows a continuous downward trend for decades: Household wine consumption was 21.86 litres per capita to only 13.92 litres from 2000 to 2014. On the other hand, the consumption of quality wines has increased by 20.8% during the same period (Spanish Ministry of Agriculture, Food and Environment, 2015b). From these data we conclude that consumers have changed their habits: their demand for higher-quality wines increases while their consumption of other wines decreases, more specifically, the consumption of table wines.

Another characteristic of the Catalan wine sector is a relatively low market share of the Catalan DO wines: Catalan DO wines only account up to 33.7% of the total quality wine consumed in Catalonia (Catalan Institute of Vine and Wine, 2014). This shows that the demand for Catalan quality wines in Catalonia is still low. Their main competitors in the domestic market are (some) Spanish quality wines, such as "La Rioja" (Kallas et al. 2013).

In turn, the exportation of Catalan quality wines shows an increasing trend in the recent years (Spanish Ministry of Economy and Competitiveness, 2015). Thus, quality wines from Catalonia are every time more appreciated and consumed beyond our borders. It is for all these reasons that we are interested to analyse the wine preferences of consumers in Catalonia.

1.2. Socio-Economic Context in Catalonia

Since 2007 the world economy has undergone a phase of marked instability. The Spanish economy was much affected by the alterations in the macro economy and in the financial conditions. Spain went into recession from the second semester of 2008 until the first four-month period of 2010, when a modest recovery was experienced. This recovery receded in the second half of 2011, as the

sovereign debt crisis heightened and spread to an increasingly large number of countries (Ortega and Peñalosa, 2012).

The economic crisis in Spain had a severe impact on the employment. In 2011 the unemployment level reached a peak of more than 6.2 million people (National Statistics Institute, 2015). The employment adjustment can be defined as virulent and protracted and it began in early 2008 (Ortega and Peñalosa, 2012). Consequently, a sharp drop in consumption and in fixed capital investment was experienced (Carballo-Cruz, 2011).

Political changes also occurred in Catalonia during the same period, most importantly since the elections of 2010, when there was a strong rise of the amount of Members of Parliament in favour of an independent Catalonia (from Spain) (Catalan Parliament, 2016). In this direction, the main party in Catalonia (CIU, for Convergència i Unió, which was in charge of the Catalan government from 1980 to 2003, and from 2010 up to 2015) shifted from nationalism to Catalan independentism (Guibernau, 2014; Hopkin, 2012; Serrano, 2014; La Vanguardia publications, amongst others). The shift became more acute after the awaited decision of the Spanish Constitutional Court about the new Catalan Statute of Autonomy - delivered on July the 10th, 2010-, which declared it unconstitutional. Consequently, a massive popular mobilization of protests took place in Catalonia (Serrano, 2014). More changes developed later in Catalan politics but those are out of the scope of our research.

In this context, our main goal is to determine consumers' red wine preferences for a special occasion and their changes regarding the newer economic and political scenario. This paper relies on two surveys that measured consumers' preferences through a Discrete Choice Experiment. Methodologically, this paper contributes to the literature of the Discrete Choice Modelling (DCM) using the recently developed Generalised Multinomial Logit Model (GMNL) of Fiebig et al. (2010). The GMNL allows the determination of the preference and the scale heterogeneity of consumers' choices. To our knowledge this is the first application in the literature of wine preferences to measure the impact of the contextual changes (economic and political) in Catalonia (Spain).

The paper is structured as follows: in the next chapter consumer's preferences towards wine are discussed as part of the literature review; in the Methodology section the methodological framework is presented. The empirical application is commented in Empirical application. The main results are discussed in Results and Discussion and the paper ends with some concluding remarks.

2. Consumers' preferences towards wine

Consumers face certain difficulties when choosing a wine (Lockshin et al. 2006). The main difficulty lies in the immense number of cues that are associated with wine. Moreover, the enormous amount of labels available in the market, and the perceived formality of wine have led to the suggestion that choosing a wine can be intimidating (Lockshin and Halstead, 2005). Consequently, many consumers will perceive wine as a complex product and will very likely exhibit some risk reduction behaviour during its purchase (Johnson and Bruwer, 2004).

Furthermore, wine is an experience product and it cannot be assessed until the product has actually been consumed (Bruwer et al., 2011; Mueller et al. 2010; amongst others). Because of this, consumers will rely on the information available on the label and the bottle to assess the quality of a wine and, they will base their purchase decision on it (Lockshin and Hall, 2003; Lockshin and Halstead, 2005; Lockshin et al. 2006; Remaud and Lockshin, 2009). Thus, the displayed information is employed as a proxy or an indication of what lies inside the bottle. However, consumers only use a small amount of all the available information to make a decision (e.g., Foxall, 1983; Lockshin and Hall, 2003). For this reason, brand names help to address risk because they provide consumers with several product cues (including quality) (D'Alessandro and Pecotich, 2013; Lockshin and Hall, 2003).

Generic types can perform as well as brand names and they can be built on the region of origin and/or the grape variety (Gluckman, 1990; Lockshin and Hall, 2003). These two wine characteristics (region of origin and grape variety) were found to be relevant signals that Italian consumers can easily recognise and trust (Corduas et al. 2013). The origin of the wine plays a key role in the consumers' decision-making process and can become one indicator of the quality of the wine (Gluckman 1990; Skuras and Vakrou 2002). In this line, the regions of origin can add value in the consumers' eyes (Angulo et al. 2000; De Magistris et al. 2014; Gil and Sánchez, 1997; Lockshin et al. 2006; Quester and Smart, 1998; Remaud and Lockshin, 2009, Sáenz-Navajas et al. 2013; amongst others). More specifically, in Spain, designations of origin can be of more importance than brand names (Bernabéu et al. 2012); while the grape variety Cabernet sauvignon also contributes to consumer welfare (Mtimet and Albisu, 2006).

Price is a very important attribute that affects wine choice. It can also be used as a proxy to infer the quality of the product, especially when there are a small number of other cues available, when the product cannot be evaluated before purchase, and when there is some degree of risk of making a wrong choice (Lockshin and Hall, 2003; Mitchell and Greatorex, 1988 and 1989).

Risk reduction strategies (RRS) in wine choices have been an issue of interest in previous research (Bruwer and Rawbone-Viljoen, 2012 – who include an exhaustive compilation of the literature related to the subject -; Bruwer et al. 2011; Johnson and Bruwer, 2004; Mitchell and Greatorex, 1988; Schiffman and Kanuk, 2006). In a more recent study from Spain, the wines that were related to a past experience and to personal knowledge were preferred over others (De Magistris et al. 2014). These two characteristics fall under the definition of RRS. Similar results were found by Bernabéu et al. (2012) who stated that a previously tasted wine and the region of origin were the most important attributes for Spanish consumers.

3. Methodology: Econometric Modelling of the DCE

Discrete Choice Experiments (DCE) indirectly identify the individual's utility function by examining the trade-offs of attributes associated to a product when making choice decisions. This is achieved by facing consumers with choice sets that confront several alternatives of a product. The product is described with several attributes with varying levels. Consumers are asked to select which alternative do they prefer within each choice set, thereby revealing his/her preferences for certain attributes and levels. Subsequently, the relative importance of the attributes can be indirectly retrieved from consumers' choices.

DCE rely on Lancaster's Theory of Value (Lancaster, 1966). The theory proposes that the utility of a product can be decomposed into separable utilities associated to the product's characteristics or attributes. DCE are also based on the Random Utility Theory (Thurstone, 1927) which proposes that individuals choose among alternatives according to a utility function that involves two main components: a systematic (observable) component and a random error term (non-observable):

$$U_{in} = V_{in}(X_i) + \varepsilon_{in} \tag{1}$$

where U_{in} is the utility of alternative i to subject n, V_{in} is the systematic component of the utility, X_i is the vector of attributes of alternative i and, ε_{in} is the random term.

According to the probabilistic models that analyse CE data, the probability that an individual n will choose alternative i (P_{in}) among other alternatives of an array of choice sets C, is formulated as follows:

$$P_{in} = \frac{e^{\mu V_{in}}}{\sum_{j=1}^{j=J} e^{\mu V_{jn}}} \qquad \forall i \in C$$

where μ is the scale factor inversely proportional to the standard deviation of the error term. For this model, V_{in} must be defined. The Multinomial Logit model (MNL) assumes that V_{in} is an additive lineal function that follows this specification: $V_{in} = \sum_k \beta_k X_{ki}$; where μ is not identifiable

and is normalized to 1 (Ben-Akiva and Lerman, 1985), and k is the number of attributes.

Therefore, the MNL model imposes homogeneity in the preferences for the observed attributes by estimating the average attributes' utilities. This is often unrealistic as consumers' preferences are, by nature, heterogeneous. In order to solve this restriction, the Mixed or Heterogeneous Logit model (MIXL) was introduced. This model, also referred as the Random Parameter Logit model (RPL), extends the MNL model by introducing random coefficients on the attributes, which will allow determining the unobserved heterogeneity (Ben-Akiva et al. 1997). However, the scale parameter in the MIXL model is also assumed to be one for identification and, thus, only the preference heterogeneity is identified.

In a more recent research, Louviere and Meyer (2007) and Louviere et al. (2008) proposed that a great deal of the preference heterogeneity -that is captured in the MIXL by the random parameters- could be better captured by the scale term, which is known as "scale heterogeneity". It was also pointed out that the distribution of the random parameters obtained in many applications of the MIXL does not appear to be very close to a normal.

The scale heterogeneity can be interpreted as the degree of individuals' certainty in their choices, as it gathers the variation of the degree of randomness in the decision-making process over respondents.

It is based on the differences of the variance of the error term (ε) across individual-decision-makers. The analysis of the scale heterogeneity is important, especially for the stated preference studies (i.e. based on questionnaire). In these studies, consumers may interpret and process choice tasks and situations differently, they may have varying levels of attention paid to the task, and they may have different levels of certainty in their choices (Train and Weeks, 2005). Thus, it would be expected that the scale of the error term could be greater for some consumers than for others.

Fiebig et al. (2010) developed the Generalized Multinomial Logit model (GMNL). Within this approach, the scale parameter is no longer set to one, and a particular specification of this term is assumed. It is for these reasons that we have applied the GMNL model in our research; the GMNL model will allow us to decompose the unobserved heterogeneity into preference heterogeneity and scale heterogeneity.

Fiebig et al. (2010) identified that the utility to person n from choosing alternative j on choice set t is given by:

$$U_{njt} = [\sigma_n \beta + \gamma \eta_n + (1-\gamma)\sigma_n \eta_n]X_{njt} + \varepsilon_{njt} \tag{2}$$

where γ is a mixing parameter between 0 and 1; and σ_n is a scaling factor that proportionately scales the β's up or down for each individual n. The scaling factor is estimated through the parameter tau (τ), which is the key parameter that captures scale heterogeneity (for further details, we recommend the reading of Fiebig et al. (2010), in which the estimation of the model, the maximum likelihood function and its theoretical foundations are specified).

Finally, our model also included an Alternative Specific Constant (ASC) in order to measure the marginal utility of the no-choice alternative (i. e. neither of the product is chosen in the choice set). Greene and Hensher (2010) proposed three possible strategies to deal with ASC. The first strategy is to specify the ASC as a fixed parameter, which is equal as assuming that the preferences for the no-choice alternative are homogenous. A second alternative is to consider the ASC like an additional attribute and, thus, as a part of the general GMNL specification. As a third option it can be introduced as a random parameter without forcing on it any special scaling. In this case study the ASC was specified as random parameter because it showed to have the best goodness of fit compared to the other specifications in terms of Pseudo-R^2, AIC and improvement in the Likelihood functions.

Once the model is estimated, we calculated the relative importance of each attribute, which is equivalent to the ratio of a particular attribute utility to the sum of all attributes' utilities. For its calculation we used the following equation (Green and Rao, 1971):

$$I_k = \frac{(\max \beta_k - \min \beta_k)}{\sum_{k=1}^{K}(\max \beta_k - \min \beta_k)} \tag{3}$$

where (I_k) is the relative importance of the attribute (k), $(\max \beta_k)$ is the maximum utility of the attribute (i.e. the most preferred level) and $(\min \beta_k)$ is the minimum utility (i.e. the least preferred level).

For the estimation of the model, we used the GMXLOGIT procedure in NLOGIT 5.

4. Empirical application

4.1. Sample

Data were collected from two identical surveys performed in two different times: before and during the current economic crisis; more specifically, in 2008 (1st trimester) and in 2010 (4th trimester). The surveys recruited 400 and 401 consumers, respectively, who responded a structured face-to-face questionnaire over a 4-week period. We used a quota sampling procedure stratified by gender, age, and postal districts with proportional allocation to each stratum from the Metropolitan area of Barcelona. The selection criteria were that respondents should be at least 18 years of age (legal drinking age in Spain), should be defined as wine consumers (by having purchased a bottle of wine within the last 3 months), and should be the main wine purchase decision makers in their household. The fieldwork was subcontracted to a company specialised in marketing research. Each respondent was given 20€ to participate in the experiment. The questionnaire was pretested a total of four times using a pilot sample of six different consumers each time and subsequently revised to improve readability and understanding.

To characterise consumers, the proportion of their most important socio-demographic stratum was set to be in accordance with that of the population from the metropolitan area of Barcelona (table 1). Ideally, the participants involved in both experiments would have been the same. Unfortunately, this was not possible to maintain and it is one of the limitations of this study. Nevertheless, Chi square tests have been performed and results showed non-significant differences between both samples in representing the socio-demographic categories of the Catalan population.

4.2. Attributes and Levels

It is of paramount importance a correct identification of the main attributes and levels that consumers consider when purchasing wine. From the literature review we were able to identify a set of major attributes that affect consumers' choices. In order to reduce the wine choice complexity, we delimited our wine selection by focusing on a red wine purchased for a special occasion, such as Christmas. Specifying the occasion leads respondents into thinking of a similar context (Lockshin and Hall, 2003; Lockshin et al. 2006). This is important because wine consumption can be explicitly related to a specific situation and to context (Bruwer et al. 2011; Engelbrecht et al. 2014; Lockshin and Hall, 2003; Quester and Smart, 1998).

Subsequently, the identified attributes were discussed in a focus group formed by university lecturers in the field of marketing and representatives from consumers' associations in Catalonia to determine the final set of attributes used in the study.

The wine origin is the factor that interested us the most, and "Catalan wine" was used as an attribute level. Correspondingly, the other introduced levels were "Spanish wine", which implies any

wine produced in Spain with the exception of those produced in Catalonia, and, as a third level, "Foreign wine". The grape variety was also considered, introducing two French varieties (Cabernet Sauvignon and Merlot) and a typical traditional Spanish variety (Grenache). The aim of introducing two French varieties was to determine if consumers preferred French varieties in general, or they were more specifically related to the Cabernet Sauvignon grape, as it was found by Mtimet and Albisu (2006) for Spanish consumers.

Certain strategies of risk reduction are likely to be exhibit during wine purchase. The main risk reduction strategies (RRS) when purchasing high-priced wines are reassurance and information seeking (Johnson and Bruwer, 2004). These findings match with those obtained in Spain by Bernabéu et al. (2012) and De Magistris et al. (2014). In this sense, wine characteristics related to risk reduction were included as the third attribute of our experiment. The introduced levels were the following: a previously known wine, a recommended wine, and a prestigious wine. Through this last level, we attempted to ascertain the effect of a known brand name (prestigious) on the other two alternatives. This third attribute was denoted "Wine References".

The set of attributes included in our experiment were the following: Wine Origin (Catalonia (regional), Spain (national), and Foreign (international)), Wine References (previously experienced, recommended, and prestigious), Grape Variety (Cabernet Sauvignon, Grenache, and Merlot), and Price (€6.00, €10.00, and €14.00). The price levels were chosen based on the fact that the purchase was meant for a special occasion, and therefore do not reflect the mean wine market prices in Spain for conventional wines.

A pilot questionnaire was then implemented to check for consistency. Following a full factorial design, a total of 81 hypothetical products were generated, which resulted in a set of $3^4 \text{x} 3^4$ (6,561) possible combinations (choice sets with two alternatives). Finally, an orthogonal fractional factorial design was applied considering all of the main effects of the attributes, which enabled us to reduce the number of choice sets to nine.

All attributes, including the price, were coded with effect coding as discrete variables (Bech and Gyrd-Hansen 2005). The base level of each attribute was as follows: 'Foreign' for 'Origin', 'Previously experience' for 'Wine References', 'Merlot' for 'Grape variety', and '€6.0' for the 'Price' attribute. All models were estimated with the GMXLOGIT procedure of NLOGIT5 using 500 Halton.

5. Results and discussion

The results of the estimated GMNL models are shown in table 2. Both models are statistically significant and exhibit a good fit with highly significant likelihood ratios. Results show that consumers' preferences are higher for the local (Catalan) origin of the product, for the grape variety Cabernet Sauvignon, and for wines that have been previously experienced compared to recommended and/or prestigious wines. The preference for the local product is a common fact when consumers have to choose amongst different origins which include their own. A certain degree of ethnocentrism is usual, and leads to an overestimation of the overall quality of domestic wines or products (Hustvedt et al. 2013; Sáenz-Navajas et al. 2014).

The results from before the economic crisis show that all the random parameters are significant, which indicates that the attributes considered are significant determinants of the consumer's welfare.

The positive (negative) sign of the attributes implies a positive (negative) contribution to the consumers' utility function. However, the results obtained during the crisis show that some of the previous significant parameters have turned into non-significant. One example is the Spanish origin of the wine. This is especially remarkable because Spanish wines gather the highest market share in Catalonia, being those from La Rioja particularly important. In this sense, the political changes occurred throughout the period of study could add an explanation to this fact.

Furthermore, the no-choice option turns from negative to positive utility, with a remarkable high value in the survey performed during the economic crisis. This greater utility for the no choice intercept may explain the shift of significance that some of the observable attributes have undergone. Thus, in the latest experiment consumers show a greater preference for not taking the product. The Catalan origin of the wine, however, remains as one of the fewer levels with a positive utility for consumers during the crisis, enhancing the Catalan identity in the consumer behaviour. This finding is in accordance with Fernández-Ferrín and Bande-Videla (2013), who stated that consumers with a recently impaired financial situation are more likely to have strong ethnocentric tendencies at a regional level.

Regarding the price attribute, results show that the coefficient for a bottle of €10.0 before the economic crisis is positive, becoming not significant during the crisis. This result can be interpreted as a reduction of the willingness to spend more, in comparison to the results obtained before the economic crisis, when respondents would choose for higher prices. Several wine studies have also shown this price behaviour, concluding that the more expensive is the wine, the more desirable it can become up to a certain price level (Chamorro et al. 2015; Lockshin et al. 2006; Mtimet and Albisu, 2006).

Following the equation (3), table 3 shows the relative importance of each attribute. The results show that the price becomes the most important wine attribute during the crisis. Before the crisis, the importance of the price was similar to that obtained by the rest of the attributes, with the exception of the origin, that was considered the most important attribute [1]. In this sense, the economic crisis may have had an influence on consumers' preferences, especially when related to price.

Results from table 3 also report consumers' scale and preference heterogeneity. As it is shown, the scaling factor tau (τ), which is the key parameter that captures scale heterogeneity, has turned non-significant during the crisis, from a significant positive value before the crisis. As the parameter tau decreases, the degree of scale heterogeneity decreases as well. This means that, in the experiment performed during the crisis, the variation of the degree of randomness in consumers' decisions has decreased significantly and, thus has the degree of uncertainty and randomness in the decision-making process. In this sense, external common circumstances may have had a homogenising influence.

In addition, the mixing parameter gamma (γ), which value lays within the range from 0 to 1, becomes equal to zero during the crisis. This implies that the preference heterogeneity is proportional to the scale heterogeneity: the closest that γ is to 0, the more linked to each other both unobserved heterogeneities are.

Regarding the preference heterogeneity, the results from before the crisis show that all the identified parameters had a significant attribute-specific standard deviation, with the exception of the

level Recommended (table 4). In contrast, during the crisis, the standard deviation for most of the levels becomes statistically equal to zero. This is consistent with a value of γ equal to 0. Therefore, there is a link between both unobserved heterogeneities, which turn out to be non-existent.

It is noteworthy that the Catalan wine and a wine with a price of €14.0 remain as the fewer levels that show significant preference heterogeneity during the crisis. In regard to the origin of the wine, the Catalan origin has a significantly positive utility for consumers but, nevertheless, this quality shows to be heterogeneous across consumers. The Spanish wines, next to showing a non-significant utility, also show a non-significant standard deviation of the parameter distribution.

6. Conclusions

Our research is focused on determining consumers' preferences towards red wine in Catalonia in two different times: before and during important economic and political changes. From an empirical point of view, consumers' preferences are higher for the local (Catalan) origin of the product, for the grape variety Cabernet Sauvignon and for wines that have been previously experienced.

In our second experiment – which takes place when the economic and political changes have already occurred –, the Catalan origin of the wine is one of the fewer levels that remain significantly positive, while consumers show a greater preference for not taking the product and the price becomes the most important attribute. Consumers' utility for Spanish wines also becomes non-significant during the crisis, in spite of gathering the highest market share in Catalonia. This seems to suggest that the political changes occurred throughout the period of study may have had an influence on consumers' preferences.

These important changes in consumers' preferences towards wine are in agreement with the undergone economic and political changes. Nevertheless, we are aware of the limitations of this study and it is therefore that the conclusions that are driven should be taken carefully, as other non-controlled variables may have also played a role. Notwithstanding, consumers' preferences towards wine have certainly changed within the different scenarios, and the undergone changes are in agreement with the contexts provided.

From the methodological point of view, the GMNL model appears to be an appropriated model to provide more information about the source of consumers' unobserved heterogeneity. During the crisis, the results do not show unobservable heterogeneity, neither scale nor preference heterogeneity, which indicates that the wine preferences are more homogeneous across consumers. The degree of uncertainty in the decision-making process decreased significantly as the scale heterogeneity became non-significant. This finding might show an impact of socio economic changes in the consumers' decision-making towards wine. In this sense, external common circumstances may have had a homogenising influence in consumer choices.

According to our findings, Catalan wineries should enhance their Catalan origin on their labels. This marketing strategy –nevertheless- is somewhat already applied by retailers, since some are placing special displays of the Catalan origin of the wine on the supermarket shelves. Moreover, Catalan wines may also be set in the supermarkets under a shelf-frame, while clearly displaying their

origin. Therefore, our results are in accordance with these observed market trends, and we expect that these methods will create an increase on the Catalan wines' market share.

Other ways to get Catalan wines closer to consumers involve creating consumption occasions, such as in fairs, trade exhibitions, etc. These marketing strategies could be applied also for wines from other regions of Spain. However, conversely to the Catalan wines, they should not enhance their origin while differentiating by other quality cues, as it could be a Cabernet sauvignon grape variety. Another possible strategy would be setting a competitive price. For the future, however, newer experiments should be performed in order to study the evolution of consumers' preferences, now that the effects of the crisis have settled down.

Notes

[1] The relative importance of the attribute of origin was also enhanced because of an advertisement campaign launched before the survey. This advertisement campaign helped to increase the positive image of the Catalan wines amongst the local population.

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