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Credibility of Collective Brand as a Source of Equity: An Empirical Application for Spanish Wine Market

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Abstract. *The appearance of consumers groups increasingly concerned about the quality of food products, together with an increasingly competitive environment and domestic saturated markets, has led companies to achieving differentiated quality. The wine sector is immersed in this situation. Valuation of this differentiation by consumers will not happen by complying with certain standards or technical specifications, but rather it has to be perceived by consumers. Unlike experts, consumers cannot easily know which properties are intrinsic to products, which are those that give them their quality. There is, thus, a problem of uncertainty regarding the quality of products. This problem becomes more complex when consumers are faced with many alternatives of a similar perceived quality, which makes them have to decide on one without being completely sure. This problem is evident in the wine market. To solve this issue, Signalling Theory has investigated the variables used by consumers to infer quality. Among these variables are price, guarantees, origin, advertising, packaging design and brand. From the consumer point of view, the most reliable signal is the brand. Due to the territory image was earning more and more equity; an opportunity to differentiate wine emerged for these regions, which was the creation of appellations of origin. Thus, some producers of a same region or territory can collaborate and establish a joint offer which permits to differentiate a typical production. Therefore, the appellation of origin or, in our case, the collective brand, will have the basic objective of signalling differentiation. The aim of this work is therefore to ascertain the value that the collective brand, as a signal, provides for end consumers. In order to respond to this question, a field study consisting of a personal survey was carried out in 2006 on a sample of 296 Spanish purchasers and/or consumers of quality wine. Results reveal that the collective brand, as a signal, allows consumers to infer quality, but also it improves perception of the intrinsic attributes of the product, which some authors have called the halo effect.*

Keywords: Collective brand, Quality, Perceived risk, Equity, Consumer Behaviour

1. Introduction

The appearance of consumer groups increasingly concerned about the quality of food products (Grunert et al., 1996)¹, together with an increasingly global, open and competitive environment and mature and occasionally saturated markets, has led companies to search for new solutions that respond to this problem. The wine sector is immersed in this situation. Companies in a global and international context and with a saturated national market have to face the challenge of achieving differentiated quality and aiming to improve their competitive position (Vrontis and Paliwoda, 2008)². Valuation of this differentiation by consumers will not happen by making products of the best quality, i.e., that have complied with certain standards or technical specifications, but rather it has to be perceived by consumers. Unlike experts, consumers cannot easily know which properties are intrinsic to products, which are those that give them their quality. There is thus a problem of uncertainty regarding the quality of products (Akerlof, 1970)³, also known as asymmetry and imperfect information on product quality. This problem becomes more complex when consumers are faced with many alternatives of a similar perceived quality, which makes them have to decide on one without being completely sure. This problem is evident in the wine market, where consumers do not have a clear understanding of the multitude of alternatives that exist, which leads to a problem with managing the information and, therefore, the risk associated with the purchase.

To sum up we are presented with two problems: one the one hand, how to infer quality and, on the other hand, how to solve the problem of making the right choice from so many alternatives, the so-called perceived risk (Mitchell and Greated, 1988⁴, 1988⁵). To face these problems, firms in wine sector have the possibility to create appellations of origin, e.g. collective brands. A collective brand is the result of a collective and cooperative effort of different individual producers. These producers gather their efforts in order to create an exclusive and differentiated quality. According to origin –with which certain properties regarding the type of grape, climate, soil are linked- wines are classified and categorised. A Supervisory Council verifies the existence of their exclusive and specific characteristics (climate, preparation method, type of grape,...) and guarantee the authenticity of those intrinsic properties. Signalling Theory (Erdem and Swait, 1998⁶, 2004⁷; Ye and Van Raaij, 2004⁸) has investigated the variables used by consumers to infer quality. Among these variables are price, guarantees, brand (manufacturer or distributor) origin, advertising and packaging design. From the consumer point of view, the most reliable signal is the one that commits the offeror to fulfil quality promises. That signal is the brand. The brand is the most reliable signal, and therefore the most credible one from which product quality is inferred. The logic that endorses the signalling properties of the brand name is the credibility or vulnerability of this brand in the face of market approval, which therefore commits the firm to fulfilling those quality promises.

The appellation of origin or, in our case, the collective brand, will have the basic objective of differentiating wine and offering quality guarantees for consumers who are more concerned with quality. The aim of this work is therefore to ascertain the equity that the collective brand, as a signal, provides for end consumers. To do this, and in accordance with Signalling Theory, we will prove whether this signal is credible for consumers and whether this credibility may be used to infer product quality and reduce the uncertainty associated with the purchasing process.

To respond to this objective, we have divided this work into four sections. First of all, we will explain in detail the theoretical framework on which the principles of brand as a signal are based. Next, based on these foundations, we will build the hypotheses. We will then explain the methodology and, finally, the analysis of results from which we will extract the main conclusions.

2. Theoretical framework: Signalling Theory

As we explained at the start of this work, we are thus faced with a problem of imperfect market information. Literature on the information economy (Stigler, 1961⁹; Akerlof, 1970³) has contributed to the solution of signals to this problem of asymmetric and imperfect information. To be able to infer those properties and, as a result, perceive the quality that the product possesses, consumers make use of signals or indicators. For the case of wine, the signals that have been researched the most are region of origin (Orth et al., 2005)¹⁰; brand, price and label (Lockshin et al., 2005)¹¹; and intrinsic characteristics –type of grape, appearance, taste- (Charters and Pettigrew, 2007)¹². Among them, brand stands out as the most reliable signal for consumers, since it commits the firm to fulfilling quality promises.

Brand Equity as a Signal

From the point of view of the Information Economy, and considering markets that are imperfect and have major asymmetry of information which prevents consumers from evaluating the product quality at the time of purchase, we investigate the characteristics of the signal that allow the consumer to infer product quality. A current of research in Information Economy examines elements of the marketing mix as quality cues. In this way, marketing mix variables such as labelling, advertising and warranties not only provide consumers with information on the product, but they also inform indirectly about those attributes of the

product on which they are imperfectly informed, such as, for example, attributes of experience. One of the most outstanding of them is brand. Thus, Erdem and Swait (1998)⁶ study brand equity by examining its ability to reduce consumer uncertainty about the qualities of the product and they state that the main determining factor in brand equity is its credibility as a signal of information for consumers. Erdem and Swait (2004)⁷ explain that the credibility placed in the brand increases utility, improving their perception on product quality and reducing the risk and costs of searching for information associated with the purchase. This is what we will explain in more detail.

Brand and Perceived Quality

As has already been indicated, there is considerable uncertainty about product quality or about the attributes that give a product quality. Wine is a very good example (Charters and Pettigrew, 2007)¹². The signals into which there has been most research have been price, guarantees (Boulding and Kirmani, 1993¹³; Erevlles et al., 1999¹⁴); manufacturer or distributor's brand (Yoo et al, 2000)¹⁹; umbrella branding (Wernerfeldt, 1988¹⁶; Erdem, 1998¹⁷); origin (Bertozi, 1995¹⁸; Biljana et al., 1996¹⁹; Papadopoulos and Heslop, 1993²⁰); advertising (Kirmani, 1990)²¹ and packaging design. The signal that stands out from all of these is brand, since it is presented as the most reliable and credible signal for end consumers. Brand will be the signal from which consumers infer a specific level of objective quality, since consumers confer a confidence value on it (Cox, 1967)²² which other signals do not have. It is as if consumers were looking for another guarantee, which they will find in the brand and which, unlike other signals, is highly credible, i.e., it has a high confidence value. It is obvious and justified that it is a credible signal because it is exposed to market approval and because it is closely linked with the intrinsic properties of the product. Since it is so closely linked to these properties -providing guarantees-, it also transmits other benefits that are directly connected with these intrinsic properties, such as the positive associations and images evoked by these attributes -imagine that German engineering evokes the idea of very good engineers, safe or very hardwearing engines-. This higher value is what we explain as an improvement in perceived quality.

Brand and Perceived Risk

Perceived risk was defined by Bauer (1967)²³ as a subjective belief in the probability of something bad happening or unfavourable consequences arising after buying the product (for example, incorrect assessment of its quality, other members of the household not liking it, or simply the product in question not being the right one). Marketing literature subsequently began to develop the concept (Cox, 1967²²; Bettman, 1973²⁴; Dowling, 1986²⁵). Since the level of uncertainty about the quality or quality attributes is considerable, good signalling of them is a determining factor in the selection process. It is obvious that since they cannot process these attributes or properties, consumers are going to base their opinion on the signal that allows them to recognise these attributes, i.e., on the informative signal that allows them to recognise many of these quality attributes. On the other hand, as well as recognising these quality attributes, consumers need to make sure that these attributes correspond to what would objectively be a quality product. It will therefore be the credibility of the signal that is the basis on which this information is collected and processed. Due to the fact that the brand summarises a lot of information about the quality attributes that have been mentioned and since that information is credible for the end consumer as it is guaranteed by the brand, it is logical and immediate to check how the brand reduces the search for all of this information because it is presented as a highly credible signal.

Brand Equity and Utility

This approach is based on the idea that consumers make use of brands to infer the characteristics of products due to the existence of imperfect and asymmetric information in markets. Brand should be understood as a signal that symbolises the company's current and past marketing strategies, thereby communicating more information than that transmitted at individual level by other signals. For this reason, and due to the existence of the problems of adverse selection, brand may constitute, for the company, a more effective signal than warranties, price, advertising and, generally, any signal considered in isolation. Thus, brand is a credible signal and, as well as improving perceived quality by helping consumers to infer the level of objective quality, it also helps them to reduce the perceived risk associated with the purchase, i.e., the risk of not knowing what the result of the product may be. It therefore allows reduction of information costs and an increase in the utility of the product. As a corollary, we could deduce that brand equity may be defined in terms of the utility it offers consumers as an information signal. Based on these principles, we are going to develop a theoretical model that we intend to prove and the hypotheses that we wish to compare. This is explained below.

3. Modelling and hypotheses

As indicated in the introduction, we are presented with two problems: on the one hand, how to infer quality and, on the other hand, how to solve the problem of making the right choice from so many alternatives, the so-called perceived risk. To solve this problem, we should make use of Signalling Theory as explained. Based on this theory, hypothesis will be built. This is explained in detail below.

Credibility and Perceived Quality

In an experience good such as quality wine, the attributes that give the product quality are vintage (young, rearing, reserve wine, etc...), type of grape (garnacha, albariña, treixadura, etc.), year (harvest year); method of preparation and origin (Muñoz, 1998)²⁶. As we have mentioned, to be able to infer those properties and, as a result, perceive the quality that the product possesses, consumers make use of signals or indicators. Erdem and Swait (1998)⁶ concluded that the most relevant signal is brand. On the other hand, Aaker (2003)²⁷, on examining the sources of brand equity, concludes that what we have to research are the attributes that allow us to identify and differentiate one offer from another and that, at the same time, give it intrinsic value. These attributes will constitute sources of brand equity. Within food markets, previous literature on brand equity has pointed out that origin makes an enormous contribution to the creation of brand equity. This is why we are now looking into the importance of the appellation of origin. The logic that endorses the signalling properties of the brand name is the credibility.

Credibility of the collective brand has been based on two basic elements. On the one hand, on its history or tradition, i.e., a long period of existence and a permanent association of the origin territory with a certain level of quality, mainly based on informal word of mouth transmitted from one generation to another. This is how the appellation of origin allows consumers to associate or recognise a certain level of quality and which, accepted by many, began to symbolise a culture. On the other hand, the Supervisory Councils, which verify the existence of their exclusive and specific characteristics (soil, climate, preparation method, etc.), guarantee the objectiveness and authenticity of those intrinsic properties. This objectivisation is responsible for credibility, which is the basis for recognising quality. This is how in the minds of consumers the appellation of origin, the so-called collective brand, became a highly credible signal of quality (more than just a mere extrinsic attribute) and its symbolism created a significantly favourable perception of the rest of the product's attributes. As a result, brand has a double effect, on the one hand, it guarantees specific properties and gives the product an intrinsic quality and, on the other hand, the origin of the product evokes history, tradition, know-how and prestige, which generates the so-called symbolic utility. In this respect, marketing literature talks about the “halo” effect exercised by the brand, which is expressed as a very positive relationship between the brand and the overall quality perceived in the product.

H₁: Credibility of the collective brand, as a signal, improves the perception of the intrinsic attributes (or halo effect).

Credibility and Perceived Risk

The diversity of alternatives, due to the wide variety of wines produced, generates a lot of uncertainty and confusion in consumers when it comes to selecting a wine with specific attributes (Mitchell and Greated, 1988)⁵. This phenomenon arose - as we explained previously - due to the continuous appearance of numerous wines, where consumers are faced with numerous alternatives that in many cases are not identified or they do not know. It is therefore a question of an inherent or latent risk (Mitchell, 1998)²⁸ that the consumer perceives in relation to the class of quality wines. In this context, application of the collective brand –the appellation of origin (A.O.)- reduces perceived risk. As it is categorised and classified through the A.O., consumers can infer a wine with a differentiated quality, i.e., one that has certain characteristics that they can recognise objectively (or at least perceive as guaranteed). The appellation of origin serves to reduce risk in the identification of characteristics or probability of error, since it provides an indication of its attributes such as flavour, type of grape or a specific region (Ruiz and Azón, 2004)²⁹.

Furthermore, the role of the collective brand as a reliable signal is reflected in the guarantee of non-variability of quality. At times, uncertainty about the product may exist even after the experience of use or consumption. However, the objectivity of the attributes guaranteed by the collective brand, together with the subsequent learning derived from the experience of consumption, increases reliability regarding the levels of the attributes and therefore reduces the risk associated with the purchase. Now that we have established this relationship between credibility and perceived risk, we can make a second hypothesis in our structural model:

H₂: Credibility of the collective brand, as a signal, reduces perceived risk

Credibility and the Search for Information

Wine is a highly complex product and those who buy and consume it incur multiple costs when they gather and process information to reduce uncertainty and perceived risk. To solve this, consumers will look for a signal that allows them to reduce the effort involved in searching for information and to reduce the costs of processing this information, while ensuring that the properties that this quality wine possesses are real.

We understand that the collective brand fulfils this purpose. To a certain extent, the brand brings information for consumers which is also very reliable. The appellation of origin, that is, the collective brand reduces both the costs of collecting information and the costs of processing it (processing and abstraction). This happens because collective brand plays a differentiating role between the vast group of alternatives and reduces the effort that consumers have to make to recognise the attributes that the product possesses (type of grape, flavour, colour, etc). Furthermore, as it is a credible signal, it guarantees that these attributes that give the product quality are certain. Thus, the credibility of the signal allows maximum reduction of the costs of searching for and processing that information. While the costs of information on the product generally increase –since they depend directly on the asymmetry and informative imperfection of the market (Erdem and Swait, 1998)⁶-, these same costs will be reduced based on the credibility of the collective brand. All of this leads us to present a third hypothesis:

H₃: The better the credibility of the collective brand, the shorter the search for information will be.

Perceived Quality, Risk, Information and Expected Utility

The expected utility of the product depends on the physical, functional and symbolic attributes perceived in the product brand and on the weight associated with the different attributes or the marginal utilities associated with these attributes (Lancaster, 1966)³⁰. We have already seen that brand is an excellent indicator of quality. In addition, as we explained in hypothesis number one, since the origin of the product is linked to it, the brand not only guarantees a certain quality status (which has specific quality attributes) but it also transmits and evokes symbolic elements generating better perception of those attributes (Del Rio et al., 1999)³¹. Consumers confer a higher value on the product. Thus, a higher perceived quality of the product, -based on the credibility of the brand-, increases expected utility. This leads us to present the next hypothesis:

H₄: The utility expected by consumers, associated with the collective brand, increases with the rise in perceived quality.

At the same time, as the theoretical and empirical evidence suggests, the aversion to risk in product markets also has an influence on expected utility (Anand, 1993)³². The explanation is based on the fact that the perceived risk causes confusion about the perceived attributes and the consumer's low level of self-confidence reduces the probability of objective assessment of the product attribute. Consequently, at the time of purchase the costs of the search for information required to convert the visible attributes into perceptible quality signals will remain constant or will even increase. Compared to this, today's consumers - always aiming for as few efforts as possible - will find a lot of utility in brand as information signal that is necessary for its assessment. Furthermore, perceived risk can also increase the cost of information, encouraging the search for it. Therefore, it is expected that the effects of collective brand on perceived risk and the search for information indirectly have a positive impact on its expected utility. This would ratify the value of the collective brand as a credible quality signal for consumers. For this reason, another two hypotheses established to this effect will be:

H₅: The utility expected by consumers, associated with the collective brand, increases with the reduction in the level of perceived risk

H₆: The utility expected by consumers, associated with the collective brand, increases with the saving in information costs

After establishing the cause and effect relationships existing between the Credibility of the Collective brand, the Perceived Quality, the Perceived Risk and the Search for Information involved, we can express the structural model proposed as a graph with respect to the effects of Credibility on the Utility Expected by Consumers. In this model, the relations described are highlighted, as well as the resulting hypotheses (See Figure 1).

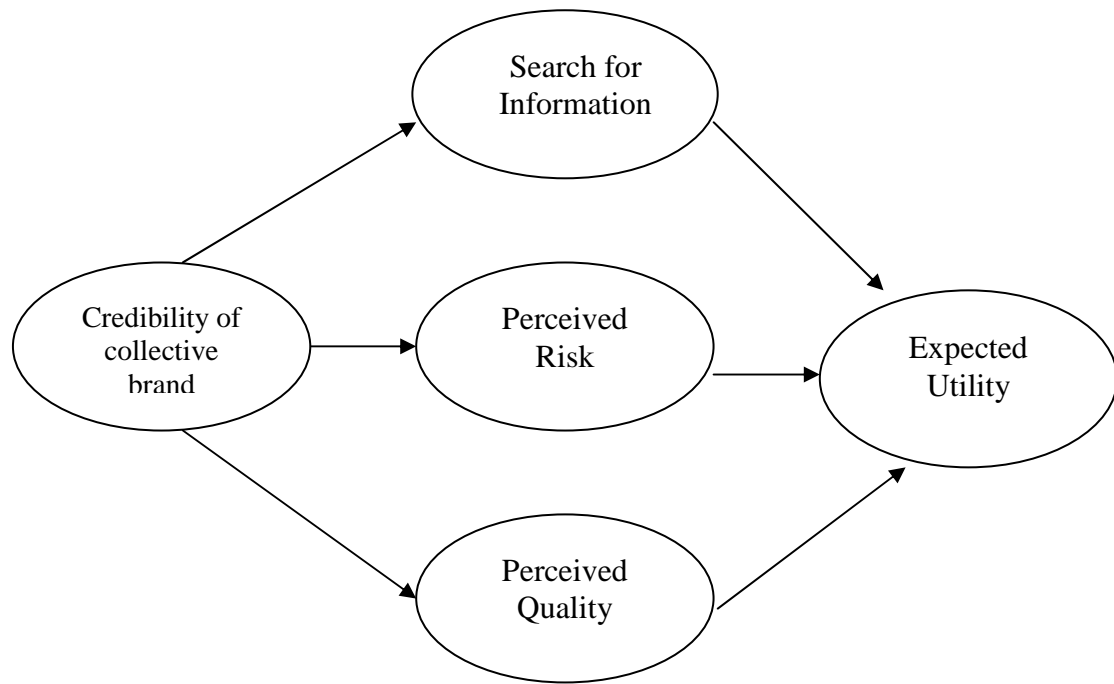


Figure 1. Collective brand as an informative signal and its influence on expected utility

Source: Author's own based on Erdem and Swait (1998)⁶

4. Sampling, questionnaire, measuring of variables and methodology

To be able to prove the hypotheses that we explained earlier, we carried out a field study consisting of a personal survey which was carried out on a sample of 320 purchasers and/or consumers of quality wine resident in Galicia. Each interviewee was asked about various aspects such as the type and class of wine that they bought, the properties they think a quality wine should have, their knowledge of wine in general, the search for information in the purchase/consumption, the criteria and reasons for purchasing a quality wine, the usual place of purchase, frequency of purchase and consumption and the value of the collective brand from the point of view of signalling. In last part of the questionnaire, consumers replied with their level of agreement or disagreement with respect to proposals relating to credibility quality, risk or the search for information and expected utility. This section is explained more clearly below.

4.1. Sampling technical data sheet

Data was collected in April 2005. Right from the start the aim was for the sample to consist of regular purchasers and/or consumers of wine so that the information was as reliable as possible. To select the sample, the method of random sampling was used. Finally, a total of 296 questionnaires -out of a total of 320- were selected. With the size of the sample obtained there was a sampling error of around 6.1%.

4.2. Questionnaire Structure

The questionnaire was divided into three blocks of questions. In the first two blocks, points were analysed such as purchasing and consumption habits. The third block of the questionnaire, which is the one that interests us, aimed to measure the value of the collective brand from the point of view of signalling, i.e., in terms of perceived quality, perceived risk and the search for information involved in the purchasing process. The items assessed by interviewees and representing the latent non-observable variables were based on a bibliographical review of the literature, mainly Erdem and Swait (1998)⁶ and Mitchell and Greatedorex (1989)³³. Interviewees assessed a total of 14 items, using the 5-point Lickert scale, relating to the credibility of collective brands, perceived quality, perceived risk, the search for associated information and the expected utility, indicating their level of agreement or disagreement. This is explained in further detail in the next section.

4.3. Measurement of variables

The variables were measured on a Lickert type scale. Interviewees expressed their level of agreement or disagreement with certain proposals, which will constitute the independent variables of the structural model. These are the so-called observable variables. For each group of independent variables, we identify a latent variable, also known as a factor or construct, which represents the variables of a more abstract nature which we mentioned in the previous paragraph: credibility, perceived quality, perceived risk and search for information. Interviewees assessed different appellations of origin, the so-called collective brands, among which were Rioja, Ribera de Duero, Rías Baixas, Ribeiro, Valedorras and Ribeira Sacra. To ensure proper representativeness of the sample, interviewees were distributed randomly so that they could assess the different appellations, in our case, collective brands. Finally, the result was 48 observations for each of the collective brand. Each interviewee answered a questionnaire according to the collective brand that was randomly assigned. A detailed explanation of the variables can be seen in table number 1.

Table 1. Measurement of variables

CONSTRUCTS (Latent Variables)	ITEMS (Observable Variables)	
CREDIBILITY	Credibility1	- The A.O is a name you can trust.
	Credibility2	- Purchasing this is the right decision.
	Credibility3	- A wine with the A.O. lives up to its promise.
PERCEIVED QUALITY	Quality1	- Wine with the A.O. is very good quality
	Quality2	- In terms of overall quality, I would classify this A.O. as being of... quality
	Quality3	- I expect the A.O. to be of extremely high quality.
PERCEIVED RISK	Risk1	- The likelihood of a bottle of wine with the X A.O. meeting my expectations is high.
	Risk2	- Buying a wine with the.....A.O. would suit what the members of my household prefer.
	Risk3	- Buying a wine with the.....A.O. would suit what my friends prefer.
	Risk4	- If I buy wine with the A.O. there is a high probability of wasting the money I have spent.
SEARCH FOR INFORMATION	Information1	- I will have to search for more information (ask the shop assistant, my friends, etc.) before deciding to purchase a..... A.O.
	Information2	- I spend a lot of time choosing a wine with the..... A.O. .
	Information3	- I know what I am getting with the..... A.O., which saves me time on shopping.
EXPECTED UTILITY	Equity	- If you were to buy 10 bottles of wine, how many of each of the following A.O. would you purchase?

Source: Author's own

4.4. Analysis of Covariance Structure

To make an analysis of the data and taking into account that what we are trying to measure are the causal relationships between variables of a latent or abstract nature -which in turn are measured by independent variables or indicators-, the technique of analysis of covariance structures was chosen. The Analysis of Covariance Structure consists of changing from a theory expressed verbally to a model expressed mathematically (Satorra and Bentler, 1994)³⁴.

5. Analysis of results

After formulating the hypotheses that we wish to demonstrate and explaining the measurement of variables and the methodology, we can now make an analysis of the results and, therefore, an empirical comparison of the hypotheses presented. From this point of view, the aim is to analyse the importance that brand as a signal has for end consumers. To test this, causal relationships between the different variables were measured. This is explained below.

5.1. Modelling

Measurement Model: Convergent and Discriminant validity

First of all, we must check the factor loadings of the different items in the different constructs. The theory (Levy Mangin, 1999)³⁵ states that it is necessary to eliminate observable variables with factor loadings of less than 0.40. Table 2 shows these loadings, and also identifies those that are not going to continue as part of the analysis. In our case, it is the credibility3 variable. The reliability analysis aims to find out the degree to which the measurement scale is free from random errors and therefore provides stable and consistent results (Sánchez and Sarabia, 1999)³⁶. Cronbach's α was then measured in the latent variables, which offered values for credibility, quality, risk and search for information of 0.885, 0.949, 0.800 and 0.564, respectively. As can be seen, the constructs are valid since they comply with both Cronbach's α and extracted variance criteria. We thus have valid and reliable constructs which are therefore free from measurement errors. We can now assess the structural model.

Table 2. Factor loadings of the different indicators

<i>Constructor</i>	Credibility	Quality	Risk	Search for information
Variance extracted	0.654	0.601	0.753	0.409
Item loadings				
Credibility 1	0.650			
Credibility 2	-0.931			
Credibility 3	0.241*			
Quality 1		0.989		
Quality 2		0.914		
Quality 3		0.507		
Risk 1			0.707	
Risk 2			0.442	
Risk 3			0.819	
Risk 4			0.776	
Information 1				0.900
Information 2				0.394
Information 3				0.558

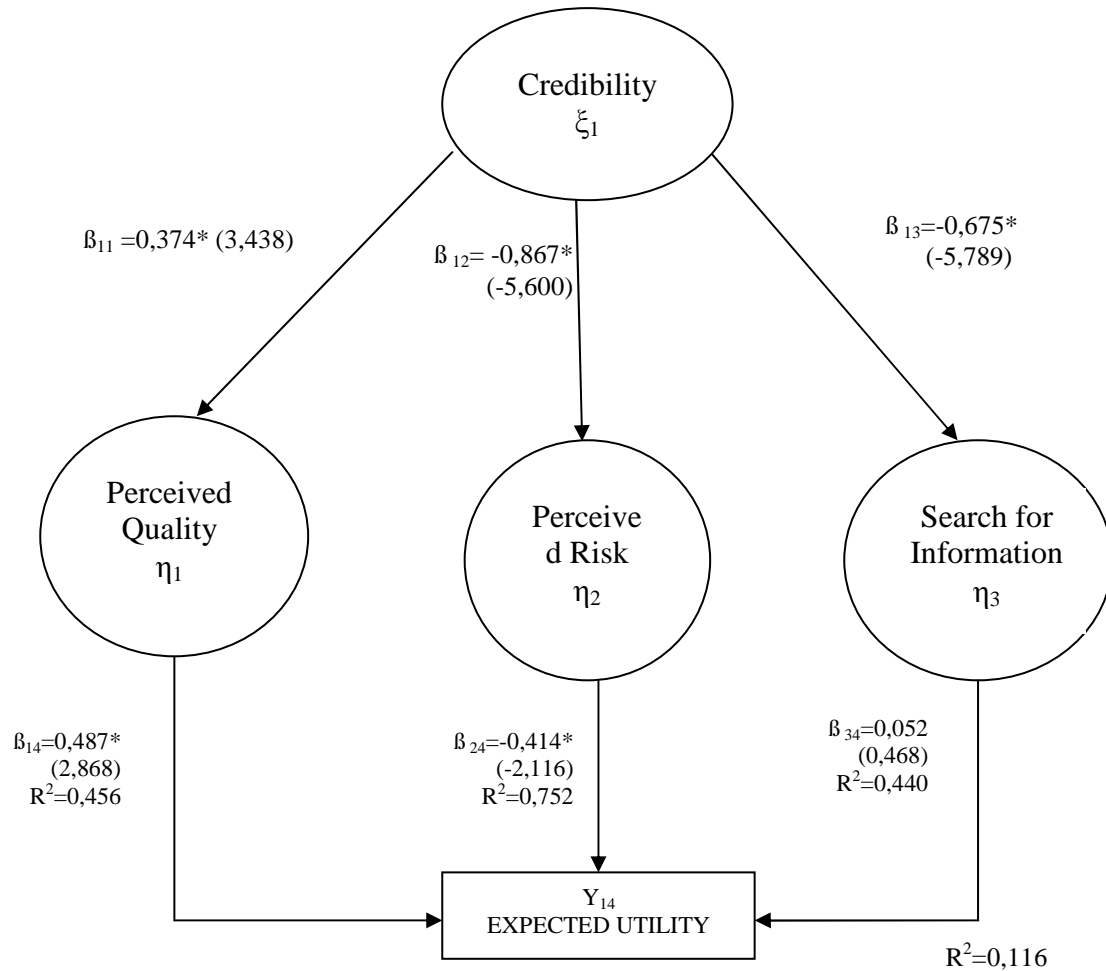
* Item deleted

Source: Author's own

What we want to prove is that each of these factors or latent variables has only one dimension. The necessary condition for validity to exist, which was mentioned previously, is not only for the indicators that define a scale to provide estimates of the principal factor but also for the meaning of this principal factor to correspond to what we want to measure. We have to measure the convergent validity and the discriminant validity (Lehmann et al., 1999)³⁷. Convergent validity (Bagozzi, 1994³⁸; Bagozzi and Yi, 1988³⁹) is directly linked with the substantiality of the standardised factorial regression coefficients between the set of indicators and the construct in which they are loaded or saturated. Substantiality requires the values to be higher than 0.5 (Bentler, 1995)⁴⁰ -all indicators meet this criterion-. Discriminant validity has also been proved since the correlation coefficient of the latent variables is very low and in no case does it come close to 1. Adaptation of the proposed scales to their convergent and discriminant perspective allows us to confirm the validity of the above-mentioned constructs. Once we have proved the validity of the constructs, both the convergent and the discriminant, and therefore proved this unidimensionality, we can then examine the structural model.

Structural Model

The standardised parameters calculated and contained in the structural equation model (SEM) are presented in figure 2. The level of acceptability of the structural model analysed were acceptable, thus, the statistics $\chi^2 = 84.948$, NFI = 0.861, GFI = 0.920 and AGFI = 0.910, CFI = 0.91 were good and the RMSEA = 0.078 was acceptable –less than 0,08-. We can now move on to interpretation of the results, followed by comparison of hypotheses.



Chi-Square = 84,948
 Degrees of Freedom= 38
 Probability level= 0.000
 NFI = 0,861
 GFI = 0,920
 AGFI=0,910
 CFI=0,91
 RMSEA=0,078

* $p < 0.005$ (in brackets, the equity of the critical region)

Figure 2. Relationships between Credibility, Perceived Quality, Perceived Risk, Search for Information and Expected Utility

5.2. Comparison of Hypotheses and Analysis of results

5.2.1. Credibility and Perceived Quality

As we explained in the theory, literature on signalling has confirmed the existence of a positive relationship between brand and perceived quality (Thakor and Lavack, 2003)⁴¹. We want to prove whether this is true for the wine sector. For a product such as wine, its quality is determined by intrinsic properties such as vintage, type of grape, vintage year, flavour or aroma. An expert can recognise the

quality of a wine by assessing these properties or by tasting the wine. However, consumers, who logically do not have the ability to process this information, require another type of information to be able to infer that quality. To overcome these limitations, consumers require an indicator or signal. This collective brand is configured as the indicator or signal that informs consumers about the intrinsic properties, also serving as their guarantee, which will make it easy for consumers, on the one hand, to identify the product and, on the other hand, to recognise a certain level of quality.

Through the collective brand consumers perceive positive associations –e.g. the fact that the product has its origin in Rías Baixas, an area with a great tradition and know-how in which a certain type of grape is grown –in this case albariña– and which the theory has explained as symbolic utility. In addition to this symbolic utility, the collective brand groups together all wines from a specific type of grape, vintage and year, guaranteeing them and therefore ensuring a certain level of quality. We see the fulfilment of the hypothesis implicit in the theory in which we explained the influence that the overall impression has on or towards the different product attributes (Vázquez et al., 2002⁴²; Verdú, 2003⁴³). The overall impression that consumers perceive through the name of a collective brand brings about an improvement in the perception of the intrinsic product attributes, which would not occur in the absence of this name. This higher value is what Aaker (2004⁴⁴, 2004⁴⁵) calls value added by the brand. In our case, we can prove the hypothesis because the parameter is positive and significant.

In our model, the parameter β_{11} which describes the relationship between Credibility and Perceived Quality takes on a value equal to 0.374 at a signification level of $t = 3.438$, reflecting that the higher the credibility in the collective brand, the more its perceived quality increases.

5.2.2. Credibility and Perceived Risk

The wide diversity of brands and varieties of wines generates uncertainty and confusion in consumers when it comes to choosing a wine with specific attributes. When they are categorised and classified through the appellation of origin, consumers may infer, through this extrinsic cue, a wine with a differentiated quality, i.e., one that has specific characteristics that they may recognise objectively. As can be observed in the model, this is the variable that takes on a higher load and statistical signification ($\beta_{12} = -0.867$; $t = -5.600$), which reveals its importance in the perception process and therefore in the final purchase.

Previous literature (Dowling and Staeling, 1994⁴⁶; Mitchell, 1998²⁸) has pointed out that this risk appears because there are many options or alternatives that are presented –which is something that is very characteristic in the wine market– or because they do not have the ability to process this number of alternatives or simply because they do not know the intrinsic attributes. To reduce this uncertainty or risk, consumers will make use of collective brand as an credible indicator that provides them with guarantees (Erevelles et al., 1999)¹⁶. Consumers will look for options that have the highest level of social recognition, which the literature has explained as reputation (Selnes, 1993⁴⁷; Chu and Chu, 1994⁴⁸; Landon and Smith, 1997⁴⁹). The reputation of a good wine will be built on the credibility of the informative signal (De Chernatony, 1999⁵⁰; Mora and Montoro, 2004⁵¹); in our case this will be on the collective brand. Therefore, the hypothesis number 2 can be proved.

5.2.3. Credibility and the Search for Information

Wine is a relatively complex product since it presents a considerable number of intrinsic attributes that condition its quality. We have the type of grape (albariña, garnacha, treixadura, tempranillo, godello and many others); a specific origin; the year (some harvests are better than others); the vintage and, of course, its organoleptic properties (aroma or flavour). We also have to add to this the immense number of possible alternatives, which makes the informative signal take on major importance. We have already indicated that uncertainty about these attributes is considerable which is why correct signalling of them is presented as a determining factor in the selection process. It is obvious that as they cannot process these attributes or properties, consumers are going to base themselves on the signal that allows them to recognise those attributes, i.e., on the credible informative signal. It will therefore be the credibility of the signal that is the basis on which this information is collected and processed. It is logical and urgent to check how the brand reduces the search for all of this information, since it is presented as a highly credible signal (Erdem et al., 2006)⁹. The impact of the credibility of the collective brand on the information costs registered a negative coefficient ($\beta_{13} = -0.675$) which was very statistically significant ($t = 5.789$). This means that the two types of costs –for collection of information and its processing– are reduced with the credibility that the collective brand presents. Therefore, our third hypothesis is proved.

5.2.4. Perceived Quality, Risk, Search for Information and Expected Utility

These variables –quality, risk and search for information– are mediator variables between the signal and the utility that we suppose consumers attribute to the brand. Figure 2 shows that parameters β_{14} , β_{24} have the expected sign and, furthermore, they are statistically significant. This means that the model supports

hypothesis H_5 , reflecting a considerable influence on the perceived risk on expected utility ($\beta_{24} = -0.414$; $t = -2.116$). This data reveals what was already stated in the theory, which is that, for a market with a wide range of prices and even qualities, consumers perceive a high risk. To eliminate the consequences of the wrong choice, or to reduce the processing of information caused by this for consumers is the reason why the reliable signal that reduces this risk is sought. This signal is the brand. With respect to quality, the parameter ($\beta_{25} = 0.487$, $t = 2.868$) confirms and ratifies hypothesis number 4 (H_4) which refers to the halo effect or improvement in the perception of intrinsic attributes. Effectively, not only do we demonstrate that there is a higher value generated by the brand, but we also see that this higher value comes from the improvement in the perception of quality, i.e., in the improvement in perception of the attributes that give the product quality and that are associated with the collective brand (for example, Albariño from Rías Bajas or Godello from Valdeorras).

Thus, brand is a signal that consumers use to infer quality (Ruiz and Azón, 2004)²⁹, and it even guarantees these properties, -which will also help to reduce the perceived risk-. The improvement in the perception of these attributes or intrinsic properties is caused by the link that exists between the brand and the intrinsic attributes. As the collective brand signals origin, it evokes know-how, tradition or symbolism, which adds value to the product. This symbolic utility, which is external to the product, is what increases the expected utility for end consumers. It is the added value that the brand gives to the product.

The exception to the model is constituted by the coefficient β_{34} which describes the relationship between the Costs of the Search for Information and the Expected Utility ($\beta_{34} = 0.052$, $t = 0.468$) and, therefore, H_6 cannot be proved. Perhaps the perception of the saving the costs of searching for information associated with a product such as wine does not have any direct influence on the utility or value of the product because consumers do not perceived this advantage directly but indirectly through reduction of the risk. This last result is consistent with the theory of Information Economy, which demonstrates that the agent makes use of reliable and credible signals to be able to reduce the risks in a good choice. This means that the increase in utility derived from a reduction in information costs takes place, mainly, derived from the reduction in the risk associated with the purchase (Dowling, 1986²⁵; Cunningham, 1967⁵²). On perceiving the risk, they will search for the informative signal that is reliable for consumers. The brand, on bringing together information on attributes that are difficult to perceive, makes an important saving in all of this processing of information. This is how we explain that the relationship is not strictly direct and that the increase in utility derived from the saving of costs of searching for information mainly comes from reduction of the risk.

Overall, the results of the grouped model uphold the structural relations demanded and the central role of credibility in the proposed framework. These results have several important implications. Credibility of the collective brand has a stronger effect on Perceived Risk (-0.867) and Cost of the Search for Information involved (-0.675) than on Perceived Quality (0.374). This data once more ratifies the implication that we had reached in the previous section and this is that quality is less important than risk. It seems that consumers are not so much concerned with inferring a level of quality with some certainty as with not making a mistake in a specific choice. We must thus look for strategies that allow reduction of this level of risk that is presented to consumers. At this point, consumers are faced with the question of which strategies for risk reduction will be applied in order to minimise the quantity of perceived risk to a tolerable level (Dowling and Staelin, 1994)⁴⁷. In their attempt to reduce uncertainty, when it comes to buying a wine, they should look for opportunities to try the wine before buying it. Another valid alternative is to provide verbal or written information on the wine -for example, guides- (Ruiz et al., 2004)⁵³ which also facilitate that choice and, finally, the information provided by the shop assistant (Ruiz et al., 2004)⁵⁴, making training in wine a basic requirement. These actions will lead to a reduction in the estimated probability that the product purchased will fail or that the consequences will be very severe and, therefore, they will lead to purchase completion.

6. Conclusions

We looked for the properties that the signal(s) should have in order to be easily perceived (identified and processed) by consumers. Thus, we followed the latest approach in this current of research, Signalling Theory. This theory aims to respond to the properties that the signals must have for them to be easily perceived by consumers. This is a very important contribution since, as we have just explained, quality is provided by those intrinsic attributes which, however, cannot be perceived (identified and processed) by consumers. The other question was knowing how to improve the equity that the brand confers on the product. This means whether the brand improves the product quality or reduces the perceived risk. The main contributions are explained below.

Brand Equity and Perceived Quality

A contribution to be highlighted in this research has been that of checking, within the theoretical framework of signalling, not only whether brand as a signal allows consumers to infer quality, but also whether it improves perception of the intrinsic attributes of the product, which some authors have called the halo effect. Our contribution has not been to identify this fact, since it had already been explained in the existing literature (Del Río et al., 2001)⁵⁵, but to identify the reason why this phenomenon takes place. Brand, in addition to being a very reliable indicator for assessing quality, allows it to be improved, by improving functional utility -a guarantee of the physical properties- and symbolic utility -positive associations in the mind of the consumer directly related with these physical properties-. These implications will have a high value for being able to provide brands (and collective brands), relating to the sector being researched, with a higher brand equity.

Another of the relevant theoretical contributions of this research is the one that explains that this improvement in perceived quality is an overall impression formed by the consumer from a specific signal (in our case, the collective brand). The overall impression that consumers perceive through the signal leads to an improvement taking place in the perception of the intrinsic attributes of the product. This higher value is what Aaker (2004⁴⁵) calls value added by the brand. This is what is known as the halo effect or improvement in the perception of those attributes. Brand is the signal that allows an improvement in the utility that the product possesses, giving it a higher functional utility and a better image. Therefore to build strong brands is a very good strategy to differentiate the product and defend from competition (Vrontis and Paliwoda, 2008)².

Another relevant theoretical question concerning quality is the uncertainty that exists about the intrinsic properties. This uncertainty that exists, even when the product has been consumed, is what led us to examine the problem of perceived risk. In other words, the agents can be faced with the problems of adverse selection (Akerlof, 1970)³ that are presented when they have to choose between different alternatives in which quality is not easily perceived. This is the supposition of asymmetric information that we explained in the previous section and that leads us to the appearance of risk in the market. This is explained below.

Brand Equity and Perceived Risk

As we have just pointed out, there is a lot of variability in the intrinsic properties that are in the market. This causes consumers to be faced with a problem of choosing the optimum from among many alternatives or simply not making the right choice. We are faced with the problem of perceived risk. Can brand act as a signal to reduce risk? In imperfect and asymmetric information markets, the information communicated by a brand will not produce any equity unless it is credible. Thus, credibility is the key element in the signalling perspective on formation and administration of brand equity. This signalling perspective aims to create this credibility.

The signalling perspective suggests that companies should inform consumers of what they are promising with their brands. Companies should avoid deliberate and involuntary differences between the offer of the promised product and the actual one, since otherwise the credibility of their brands could fade. Standardisation of quality is an obvious and important way to avoid such discrepancies. The signalling perspective suggests that, in the long run, the consistency of the current offer will provide feedback for the offers of the company's products and will thus reinforce brand equity. Specifically, maintaining brand equity requires consistency in the management of marketing mix elements. Elsewhere, it is also important that both individual brand offers and levels of brand attributes maintain consistency (coherence) over time. This coherence over time aims to guarantee the clarity of the brand position with the information supplied and to reinforce its credibility. This credibility will be the signal that allows reduction of both the risk associated with the purchase and the costs of searching for information associated with the appearance of this level of risk.

For the wineries, the authenticity will be critical to reinforce the status, command price premiums and obtain an advantage against potential competitors (Beverland, 2005)⁵⁶. This is an excellent way to create corporate regulation and build authentic brand equity.

All of this leads us to the conclusion that the basis for building a brand that is strong and therefore credible lies in i) making a consistent offer, i.e., homogenising its quality and delivering what is promised; ii) committing resources for the long term and iii) offering very clear information -easily perceived- and therefore, submitting to market approval. In this way, brand will improve perceived quality and reduce risks and costs of information associated with the purchase. We can say that collective brand adds equity or utility to the product.

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