Differences in the Perception of Wine Attributes: A Comparative View Between Consumers, Producers and Intermediaries

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Key words: product perceived quality, intrinsic and extrinsic, tangible and intangible attributes, wine, wine scale validation, gap analysis

ABSTRACT

The present paper adopts an exploratory approach to the evaluation of the main wine dimensions that emerge from the wine consumer's mind and how it compares with the intermediaries and producers' perspective. Its aim is to measure the gaps in the perceptions of the wine attributes importance between these groups. A perceived quality perspective is adopted and the different product classifications are discussed in order to find the right approach for the research. It was found that consumers do have a distinct and clearer perception over the wine attributes allocating them either in intrinsic or extrinsic dimensions as opposed to the intermediaries and producers. The gaps between the consumers and the intermediaries and producers are much smaller in the intrinsic attributes than in the extrinsic attributes. (Bulletin de l'OIV, 2011, vol. 84, n°965-966-967, p. 271-306)

1. INTRODUCTION

When measuring the gaps in different perceptions about a specific product such as wine, the product's specific nature needs to be carefully analysed in order to establish the comparison's criteria. There is no doubt wine is a very particular and complex product. Most of its attributes can remain stable over time (extrinsic variables like label, price, point of sale, or production factors such as vineyard, and grape varieties, amongst others); however, the intrinsic nature of the product that determines its taste (factor such as acidity, sweetness, alcohol, flavour, etc.) will vary according to non-controllable factors such as climate or plagues on every vintage. Even a wine's quality from the same vintage will vary throughout time, either improving as in the case of some red and fortified wines, or decreasing as in the case of many white wines (Robinson, 1999). This poses a potential problem to consumers when it comes to choosing a wine due to the fact that most of the time they cannot taste the wine before buying it (Lockshin *et al.*, 2006). Wine also seems to have a great deal of cues for consumers, each one competing with the other (Goodman *et al.*, 2005). These variables interact in a way that seems to differ from other products such as the expected relationship between origin and brand.

There's also evidence that little external search effort is undertaken before entering the point of sale: here the promotional material provided on the regions of origin and on the wine labels are the two most important attributes to consumers (Chaney, 2000). Another factor contributing to the consumers' difficulty in the purchase decision is the fact that supermarkets tend to exhibit a wider variety of brands and a larger price range for the wine department than for other food and consumer goods (Goodman *et al.*, 2005). The wine's symbolic dimension contributes to the division between consumers that recognize they do not have the skills to distinguish its objective quality from those who say they do (Charters & Pettigrew, 2003).

The literature about marketing recognizes the existence of different levels or dimensions that determine product quality, ranging from eight different levels or components (Garvin, 1987) to the basic two levels of intrinsic and extrinsic dimensions (Espejel *et al.*, 2007; Bello and Calvo, 2000; Szybillo and Jacoby, 1974). Another distinction is between tangible and intangible attributes, discussed mainly in the services area (Laroche *et al.*, 2001; Zeithaml and Bitner, 2000). These classifications are based on a mere theoretical level (Levitt, 1980; Garvin, 1987: MacDonald, 2002) or on empirical studies (Olson and Jacoby, 1972; Szybillo and Jacoby, 1994; Verdú *et al.*, 2003).

In the Portuguese context, there is evidence that the importance given by consumers to the different wine attributes is not fully apprehended by the producers (Lavrador, 2009). Likewise, there was some empirical evidence demonstrating that, concerning wine intermediaries, there are some differences regarding the importance given to key wine attributes (Oliveira-Brochado and Martins, 2009). This implies that the role each of these attributes has on the consumer's choice needs to be better clarified so that wine producers and intermediaries can develop more efficient promotional tools to better position their products.

The aim of this paper is to evaluate how the different wine attribute perceptions differ amongst consumers, producers and intermediaries, specifically how producers and intermediaries perceive the consumer preferences and how distant their perception is from the consumers' perspective. It is also important to evaluate how sub groups inside each of the three samples relate to one another, i.e. if some groups are closer to each other in some attributes than others and if there are significant sub groups within the consumers, producers and intermediaries. To reach this aim we developed and validated as the main data collection instrument an attribute importance scale that allows us to determine the relative importance of each wine main dimension and to measure the gaps between the different groups.

The paper begins with a presentation of a literature review analysing the main product classifications and discussing the perceived product quality, the role of the different attributes and its application to wine researches, as well as the implications of the gaps in these attributes amongst the different market actors. This is followed by the methodology proposed for the data collection instrument and for measuring the gaps between the different sets of groups. Finally the results are discussed and the conclusions are drawn.

2. LITERATURE REVIEW

2.1. Product perceived quality and its relation with the product dimensions

As suggested by Verdú *et al.* (2003), a comparison of the gaps between the different groups (consumers, intermediaries and producers) based on the perception of the wine attributes implies that the product dimensions need to be carefully framed in order to develop the measurement instrument. According to Garvin (1984), the definition of product quality varies depending on different approaches: transcendent; product-based; manufacturing-based definition; value-based; and user-based definition. In the context of this study the user-based quality seems the most appropriate basis for our analysis as it implies pleasing consumers (Garvin, 1987). It consists mainly on the capacity to satisfy wants and to fit patterns of consumer preferences and uses (adapted from Eduards, 1962; Gilmore, 1974; Kuen and Day, 1962, cit in Garvin, 1984). This perspective implies adopting a perceived quality approach: the customer's perception of the overall quality or superiority of a product with respect to its intended purpose in relation to the alternatives (Aaker, 1991). Since consumers use cues to assess the product's quality, this approach differs from objective quality, which therefore implies mediating objective product characteristics and consumer preferences (Steenkamp, 1989; Verdú *et al.*, 2003).

The question whether quality exists by itself or if it is just in the mind of consumers has also been addressed in the wine field by Charters and Pettigrew (2003). They analysed how consumers conceptualize quality and whether it is considered as an objective or subjective evaluation of a product. Some of the objective attributes may differ between consumers (such as the alcoholic content: some may prefer a more alcoholic wine while others may discard this attribute). Consumers may not prefer some of the specific attributes, but nevertheless consider it as a quality-defining feature (such as wood-fermented wines). This type of behaviour seems to occur with consumers who have higher consumption rates and make more information-seeking efforts (Charters and Pettigrew, 2003).

The product quality seems to have both an objective and a subjective/perceived nature (Garvin, 1984; Zeithaml, 1988) and these two levels seem to relate to the distinctions between the intrinsic/extrinsic or tangible/intangible levels often referred to in the literature. The objective nature of quality refers to the measurable and verifiable evaluations that can be converted into measurable standards (Zeithaml, 1988) and relates more to the intrinsic nature such as size and bio-chemical content. The subjective quality as the "consumer judgment about a product's overall excellence or superiority" (Zeithaml, 1988, p.3) relates more to the extrinsic nature of a product that relies on subjective perceptions such as reputation, brand name, or awards, amongst others.

Levitt (1980) clearly recognizes the existence of two basic product levels: tangible and intangible, both combined inside a product. In this case, a product is perceived as a complex cluster of benefits where the intangible attributes have a key role in the satisfaction of customer needs. Levitt's classification considers four basic levels: one for the core product and three for the extrinsic product (see Tab. 1). These classifications, however, have a very subjective nature when they have to be measured. Levitt (1980) considers that what is an augmented attribute to some consumers can be an expected or potential attribute to others. Even the role of each of these levels on customer satisfaction may vary according to different types of customers who may value price or flavour over the augmented product attributes (Levitt, 1980).

Garvin (1984, 1987) proposed eight critical dimensions of quality that have to be considered in a strategic analysis (see Tab. 1). Some are clearly tangible such as performance, features, reliability, conformance, durability and aesthetics, as they relate to the physical properties of a product and are thus more easily measured. The remaining two categories (serviceability and perceived quality) are on the intangible and subjective side. Nevertheless, Garvin (1984, 1987) recognised the difficulties in establishing the differences between these categories based on the objective measurability, namely concerning product durability, which would have to rely on both tangible and intangible cues before being experienced. It seems evident that some of these categories would differ according to Nelson's (1970) distinction between search and experienced goods, being wine a clear example of the latter. Some of Garvin's dimensions overlap as in the case of durability and reliability, which are closely linked, or product features that are often a second aspect of performance (Garvin, 1987). There is also still a question about the exact relation and distinction between product attributes that connote quality and those that simply enhance consumer satisfaction. This implies that a consumer can prefer a product that he perceives as having less intrinsic quality, thus making a distinction that is crucial to separate quality from consumer preferences.

Table 1. Product levels classifications

Levitt (1980)	Garvin (1984)
1. Generic product **2. Expected product:** Expected services and performances **3. Augmented product** What is beyond expectations **4. Potential product:** All that can be done to attract and hold customers.	**Performance:** Product's primary operating characteristics **Features:** Characteristics that supplement basic functioning **Reliability:** The probability of a product malfunctioning in a time frame. **Conformance:** The degree to which a product's characteristics meet the standards **Durability:** The amount of use one gets before deterioration **Serviceability:** The speed, courtesy, competence, and ease of repair. **Aesthetics:** How a product looks, feels, sounds, tastes and smells. **Perceived quality:** The reputation of the product.

2.2. The role of the intrinsic-extrinsic and tangible-intangible attributes

The existence of both intrinsic and extrinsic factors as the key dimensions to explain the overall perceived quality of a product is widely recognized in the literature (Olson and Jacoby, 1972; Szybillo and Jacoby, 1974; Zeithaml, 1988; Steenkamp, 1989; Speed, 1998; Bello and Calvo, 2000; Alonso *et al.*, 2002; Verdú *et al.*, 2003; Espejel *et al.*, 2007; Chocarro *et al.*, 2009). Some researches found that the intrinsic attributes have a greater effect on the consumers' perceptions of quality (Olson and Jacoby, 1972; Szybillo and Jacoby, Rao and Monroe, 1988, 1994; Erickson *et al.*, 1984; Olshavsky, 1985; Steenkamp, 1990; Alonso *et al.*, 2002). Fewer have found that the extrinsic attributes explained the quality perception further (Olson, 1977), while others only considered the role of the extrinsic variables on the effect of product selection (Chocarro *et al.*, 2008). Therefore, the exact roles that these two levels have on the product selection, and the relative importance that consumers give them, requires a clear definition of what are the main dimensions which attributes are under.

The dichotomy between intrinsic and extrinsic attributes seems more consensual, particularly due to higher literature support and to the fact that the other alternatives do not present a more precise distinction between the attributes (Zeithaml, 1988). Other classifications have also been proposed, such as splitting the product into central (intrinsic) and peripheral (extrinsic) attributes (Sanzo *et al.*, 2001), or in distant and proximal (Brunswick, 1956), or even dividing the intrinsic attributes into two: product and process attributes (Northen, 2000).

The extrinsic attributes are related to the product, but are not a physical part of the core product that is consumed (Espejel *et al.*, 2007). The extrinsic attributes regarding wine were defined as "those who are known or can be known to the consumer before buying the bottle of wine and are separated from the actual characteristics of the wine" (Horowitz and Lockshin, 2002, p. 9). To Olson and Jacoby (1972), the intrinsic attributes are those that disappear when the product is consumed. They relate to the nature of the product itself. For Orth and Krska (2002) they are the ones that cannot be changed without altering the core product responsible for the taste of wine. Therefore, they are only felt when the product is actually consumed. This, again, relates to Nelson's (1970) classification between "search" and "experienced" products: the intrinsic attributes are more related to "experienced" and the extrinsic attributes more to "search", which is critical in the purchase decision at the point of sale.

In services marketing a distinction is made between tangible and intangible goods as a way to evidence the difference between products and services, putting the products on the tangible side and services on the intangible (Laroche *et al.*, 2001; Zeithaml and Bitner, 2000). These boundaries create some potentially misleading distinctions: there seems to be evidence that some goods are perceived as less tangible than some services. The concept of intangibility itself is still somewhat ambiguous (Laroche *et al.*, 2001) and the difference between intangibility and tangibility also needs to be clearly defined. Several definitions of intangibility have been proposed (Rathmell, 1974; Shostack, 1977; McDougall, 1987; McDougall and Snetsinger, 1990). They all converge in defining intangibility as what is inaccessible to the senses (i.e. lack of physical evidences) and what is composed mainly of subjective factors. By contrast, the tangible factors are those palpable and accessible to the senses, but they might not imply a completely objective evaluation of the product's quality (for instance, taste varies across individuals and depends on the senses and learning/experience factors). Zeithaml (1988) also discussed the difficulties in the distinction between some attributes of intangibility and tangibility, namely in the case of functional elements of packaging. Packaging, being a physical component of the product, is clearly a tangible attribute but of an extrinsic nature because it is not consumed with the product.

According to Alonso *et al.* (2002), the distinction between intrinsic/extrinsic and tangible/intangible attributes is only of a semantic nature, as they consider both terms as equivalents. It seems logical that the intrinsic attributes are clearly tangible as they have to be experienced and sensed. However, the extrinsic attributes can be both tangible (the bottle, for example) and intangible (the wine's reputation). Each of these major dimensions seems to be also multi-dimensional and each of the variables used to measure them must be adapted to the specific nature of the examined product (Verdú *et al.*, 2003). According to what has been previously discussed, it seems that, in our analysis, the argument lead to the adoption of the distinction between the intrinsic and the extrinsic attributes as it is the only product's dimensions classification that can clearly divide the attributes into two mutually exclusive categories.

2.3. The attributes classification of wine

Since generalizing about the specific attributes is impossible because they differ widely across products (Zeithaml, 1988), the wine attributes have to be thoroughly defined. Gluckman (1990) presents a distinction between explicit considerations, i.e. the ones that consumers explicitly weight up at each purchasing occasion: 1) familiarity, 2) price, 3) quality, 4) taste, and 5) suitability (this last one seems more a benefit that an attribute) and implicit considerations where the preference options tend to be fixed: 1) colour, 2) packaging appearance, 3) country of origin, and 4) size of container. Spawton (1991) proposed to distinguish three different layers in wine: a) the core benefit, i.e. the reason why people choose to drink wine; b) the tangible features: the physical and sensory features that a buyer needs in order to choose a wine; c) intangible features that differentiate a wine from its competitors. This proposal has no empirical support and does not specify which items should fall under the core benefits because it only refers to the adequacy to the consumption occasion rather than to its core physical-chemical elements that define taste, colour, and alcohol. This classification would put the level of core benefit as something more related to the intangible and extrinsic features than the core product. Another theoretical approach also uses three main dimensions (Rouset and Seguin, 2003), but it distinguishes between the wine itself (the core product), the augmented product (such as packaging and brand) and the intangible product related to the services provided. Both these proposals seem to recognize the existence of the intrinsic and extrinsic levels as well as the tangible and intangible dimensions in wine.

Orth and Krska (2002) adopted a categorization that they refined from Hauck (1990), which considers one core product and then distinguishes between two levels that are still on the physical aspect (i.e. tangible although extrinsic): packaging and labelling. For them, labelling is a dimension on its own because of all that is communicated through it (see Tab. 2). Apart from the product (i.e. on an intangible level) there are four outer dimensions: service, store, presentation and price.

Verdú et al. (2003) developed a new scale to measure the intrinsic and extrinsic attributes that define the red wine quality according to the consumers' perceptions. The scale aims to study the differences between the expected and the experienced quality regarding an ideal red wine. Although the data gathering design had to rely much on perceptions and memories of a past consumption and on an idealization, their contribution shaped some of the dimensions on which consumers tend to classify red wine. They developed their scale literally from scratch, ignoring the contributions from Spawton (1991), Rouset and Seguin (2003) and Orth U., Krska, P. (2002), using consumer interviews to suggest the key quality dimensions. The fact that their scale was developed for only one category of wine (red) implied that a new measurement instrument had to be built for this research. A comparison of all these attributes can be seen in Tab. 2.

Table 2. Comparison of the different lists of wine attributes

Gluckman (1990)	**Spawton (1991)**	**Orth and Krska (2002) after Hauck (1990)**	**Rouset and Seguin (2003)**	**Verdú et al (2003)** Dimensions
A. Explicit 1. Familiarity 2. Price 3. Quality/reliability 4. Taste (sweetness/dryness) 5. Suitability for all tastes **B. Implicit** 6.Colour 7.Packaging appearance 8. Country of origin 9. Size of container	**A. Core Benefits** **B. Tangible:** 1. Bottle 2. Bottle dress 3. Price 4. Quality 5. Style/blend 6. Vintage 7. Region 8. Grape variety 9. Branding **C. Intangible features:** 10. Representation 11. Education 12. Awards 13. Outlets: where sold 14. Endorsement 15. Personality wine maker 16. Promotion 17. Image 18. Tasting 19. Agent	**1. Core product:** Colour, Sensory analysis **2. Packaging:** Bottle, Can, Open, Bag in box, Tetra brick, **3. Labelling** (what you see there): taste, grape variety, vineyard, location, village, region, country, production method, awards, producer, wine type, year bottled. **4. (Outer dimensions)** Service; Store; Presentation; Price	**The wine:** **(intrinsic)** 1. Grape varieties 2. Vinification 3. Alcoholic degree 4. Year 5. Aromas **(extrinsic)** 6. Brand 7. Name 8. History 9. External package 10. Bottle 11. Counter label 12. Label 13. Dressing (*habillage)* **(intangibles)** 14. After sales 15. Other services 16. Supply 17. Shipping 18. Credit	**Intrinsic Factors** 1. Age 2. Harvest 3. Alcohol 4. Varieties 5. Taste 6. Aroma 7. Colour **Extrinsic factors** 8. Reputation 9. Region 10. Appellation d'origine 11. Advertising and propaganda 12. Distribution channels 13. Bottling and labelling 14. Brand 15. Price

Some empirical research has been made regarding the importance of different attributes in wine where the main variables under study were price and region of origin (Priilaid, 2006), brand name, quality, reputation, awards (Perrouty *et al.*, 2006; Lockshin *et al.*, 2000, 2006) awards and price (Orth and Krksa, 2002), labels (Barber *et al.*, 2007), labels and point of sale (Chaney, 2000), grape variety, region, year of vintage and recommendations (Combris *et al.*, 1997; 2000; Oczkowsky, 2001), and taste (Koewn and Casey, 1995; Thompson and Vourvachis, 1995). The importance of each of these attributes on the perception of quality is still a fertile ground to explore as the results are not homogeneous due to the fact that all these attributes were not tested simultaneously. Gil and Sanchez (1999) found that origin was the most important attribute, but that grape vintage year and price changed positions according to the two regions studied (Navarra and Aragon). This seems to be in accordance with the findings of Johnson & Bruwer (2007) that origin is a key attribute to define wine quality. Aqueveque (2008) found that expert opinion is another factor to consider when evaluating the wine's quality. Perrouty *et al.* (2006) and Lockshin *et al.* (2006) demonstrated that the price and brand's role vary according to the consumer segment and that brand can be a moderator of origin for expert consumers and that low involvement consumers give more importance to price and awards (Perrouty *et al.*, 2006). Priilaid (2006) found that the extrinsic cues such as the ones examined by Lockshin *et al.* (2006) and by Perrouty *et al.* (2006) seem to overshadow the intrinsic ones: there was no correspondence between the blind and the sighted tests, demonstrating a higher importance of the extrinsic attributes in the purchase decision making process. In the absence of a clear consensus and of common findings, there seems to be a need for a broader study conducting a more extensive comparison. Such research should compare the relative importance of the main meaningful intrinsic and extrinsic wine attributes for the consumer, confronting them against the perceptions intermediaries and producers have of the consumers' attribute preferences. The results of the main researches dealing with the importance of wine attributes can be found in Tab. 3.

Table 3. The main wine studies dealing with wine attributes

Authors	Aim	Results
Speed (1988)	To identify under what circumstances companies launch new products as line extensions or as second brands in wine.	Price is a proxy for product quality. When there's a product with a high proportion of attributes that can only be assessed during consumption (experience attributes), the ability to assess quality prior to purchase is severely impaired and consumer will rely on extrinsic cues.
Gil and Sanchez (1999)	To examine and compare wine attribute (price, origin and vintage year) preferences between two Spanish regions.	In the Navarra and Aragon regions the wine origin was rated highly, but while Navarra ranked price as the second most important attribute, consumers from Aragon considered grape vintage year the second more important attribute.
Chaney (2000)	To evaluate the relative importance of each of the information sources from the consumer perspective in their wine purchase decision making.	Information on taste is the most important followed by price and retailer. The production factor (winemaking, winemaker, climate and vintage) were the least important regarding the types of information required.
Orth and Krska, (2002)	To evaluate the quality signals in wine marketing, specifically the role of exhibition awards and to estimate the optimal price for wine exhibition awards.	Grape variety was the most important attribute to consumers, followed by colour and price. Awards have only moderate importance for consumers. The origin of the award (place of the exhibition) has a significant effect on the consumer preferences, but this is not conclusive due to sample limitations.
Verdú, *et al*., (2003)	To develop a new scale for measuring the intrinsic and extrinsic attributes in red wines as well as the gaps between expected and experienced attributes.	Their 21-item scale is satisfactorily validated. Red wine has a dimensional quality based on 7 major dimensions: origin, image, presentation, age, harvest, sensitivity and acuteness, reinforcing the need to separate from intrinsic and extrinsic attributes.
Charters and Pettigrew (2003)	To explore the relationship between quality perceptions and preferences in wine consumption amongst consumers, producers and mediators.	Wine consumption preference seems to be a means of linking a personal, subjective approach to wine enjoyment with a more objective view of quality. Quality is out there and is independent from what consumers like to consume. So it allows both a subjective and an objective perspective to be maintained.
Cadima Ribeiro and Freitas Santos (2003)	To measure the Portuguese consumer perceptions of wine in a real market setting.	The study shows that some regions of origin have a significant impact on price (wines from Douro, Alentejo and Dão are expected to have price premiums, wines from Bairrada, Ribatejo and Setúbal are expected to have discounts). Other product attributes such as colour (red wine), age (more years) and special attributes (grape or reserve) all have positive effects on price.
Priilaid (2006)	To ascertain the extent to which the sighted appreciation of a wine's intrinsic merit is confounded by extrinsic cues such as price and region of origin.	When quality is measured from a sighted perspective, region becomes a significant explicator, along with price. Only once region and price have been factored does intrinsic merit become moderately relevant. The lack of correspondence between sighted and blind tasting cues suggest that, for sighted judgments, the extrinsic cues seem to mask the wine's intrinsic merit.
Perrouty *et al*. (2006)	To show that region of origin equity is moderated by wine label attributes with the significant strength of this moderating effect depending on the	Brand and price intervene very differently in the choice process of expert and novice consumers. Novices give value to origin independently of brand and price. For experts, the brand is a moderator of origin. Consumers accord a decreasing degree of value to regions, brands or prices alone and an increasing

	consumer expertise level.	degree to combinations between these signals.
Lockshin *et al*. (2006)	To show how consumers use label information to make their purchase decisions for wine and how different combinations of attributes affect choice.	Consumers used the given extrinsic cues as follows:: low involvement consumers use price and award more than high involvement consumers. Gold medals increase the probability mainly at lower and middle point and a well-known region increases the desirability especially for small brands.
Johnson and Bruwer (2007)	To examine the regional brand image of California wine regions and the effect of that image on consumers' quality perceptions when included on wine labels.	The perceived quality of a wine region raises the quality expectation of the sub-regions or appellations within that region. The wine region is the most important information to predict quality on wine labels. Almost without exception, the addition of regional information on a label increased consumer confidence in the quality of the product.
Barber *et al*. (2007)	To examine information, label fluency, consumer self-confidence and the impact on consumers purchase decisions.	The results indicated that respondents preferred the label information provided and those with low self-confidence preferred the modern label colour and classic label information.
Aqueveque (2008)	To assess the effect of expert reviews, price, and country of origin on consumers' evaluations of the quality and value of imported wine.	The effect of expert reviews on quality and value perceptions is higher than the effects of price and country of origin. The country of origin effect is significant on perceived quality but not on perceived value. The effect of the country of origin information is significant when price information is also present, but becomes non-significant when expert review information is added.
Lavrador (2009)	To make a comparison between the consumers and producers on wine attributes.	There were divergences in the perspectives from consumers and producers where producer focuses too much on oenological quality, grape variety and in the certification process and underrate the importance of back label information.
Oliveira-Brochado and Martins (2009)	To use the importance attributed to tangible and intangible features in the process of wine acquisition to make restaurant segmentation in the north of Portugal.	The results show two main groups: the first gave low importance to image, with price being the key element, nevertheless giving importance to quality factors; the second group gave more importance to quality and image and valued the brand related attributes, over the low importance given to an attractive label.

What is evident from all these studies is that there are still some gaps to be filled as the Tustin and Lockshin (2001) findings that relate to the absence of interactions between region of origin and brand are against the findings of non wine literature (Perrouty *et al.*, 2006) – although there are also non wine studies that did not find any interaction effects (Teas and Agarwal, 2000; Li *et al.*, 1994; Tse and Gorn, 1993; Ulgado and Lee, 1993). Another aspect to be taken into account is that not only the nature of the input matters, bringing out the need to also consider that some attribute cues are more valuated by some consumer segments than others (Perrouty *et al.*, 2006; Haubl and Elrod, 1999). This means that a comparison should be drawn based on more than a single group of consumers.

There are only a few studies that deal with wine attributes in the Portuguese wine market. Cadima Ribeiro and Freitas Santos (2003) found out that a dominant factor of influence in the acquisition of wine is the region of origin. Accordingly, wines from the best-known regions (Douro, Dão and Alentejo) can reach higher prices than wines from other regions, proving that the region of origin has a positive image/reputation on the wine market, further enhanced on the labels. This emphasises the role of label as the main cue provider and is in consonance with the findings of Lockshin *et al*. (2000) and of Chaney (2000). Another study by Oliveira-Brochado and Martins (2008) used the importance attributed to tangible and intangible features in the process of wine acquisition to make restaurant segmentation in the north of Portugal.

2.4. Potential gaps in the perception of the product attributes amongst different market actors (consumers, intermediaries and producers)

The impact of different perceptions of what is being offered amongst the clients and the supplier of the good is critical to the perception of quality as has been discussed in the service sector by Parasuraman *et al*. (1985, 1988). In the SERVQUAL model they defined the first gap as the one that occurs between the expectations of clients and the perceptions of managers of the same clients' expectations, caused by the lack of knowledge of the service providers. Although widely used in the service field, this approach does not seem to be yet expanded to the tangible product area.

This gap on product attributes perception has also implications in other marketing constructs. The market orientation literature refers to the customer orientation as one of its most significant dimensions that implies a good understanding of customer needs, since an organization can only be market-oriented if its actions are adequate to the customer's expectations and preferences (Narver and Slater, 1990; Kohli and Jaworski, 1990; Deshpandé *et al*., 1993). Therefore, the expansion to the measurement of the main market actors (consumers, intermediaries and producers) is justifiable by the argument that it identifies the customer as the evaluator of the market orientation (Deshpandé *et al*., 1993; Bigné, *et al*., 2004).

This outlook on the gaps concerning the understanding of the characteristics of the products has only been applied to the field of market orientation by Sijtsema *et al*. (2004). Their research into the gaps between the perception of the characteristics and attributes of the products by producers and consumers in the food sector found significant differences in some attributes. In the Portuguese wine sector there are two studies dealing with the gap perceptions regarding the wine attributes. The research by Lavrador (2009) deals with the comparison between the demand side (consumers, but also producers and winemakers) and the supply side (the producers). Some important gaps between the consumers and the producers were found: producers tend to value more the oenological quality, certification process and grape variety than consumers. One other study based on the comparison between products' attributes was also undertaken by Oliveira-Brochado and Martins (2009). It was used to classify restaurant managers into two main groups based on an importance scale of nine key attributes according to Gluckman's (1990) attributes. All these studies sustain the need for a research that can not only measure the relative importance of each of the wine attributes for the consumers, but also evaluate how their considerations are perceived by intermediaries and producers. This comparison should also be based on more than one group for each market actor as indicated in the researches of Perrouty *et al*. (2006) and of Haubl and Elrod (1999).

3. METHODOLOGY

Sample: The data, with the exception of the pre-tests, was collected using an online survey as the main data collection method. It obtained 594 (consumers), 77 (intermediaries) and 143 (producers) validated questionnaires. For intermediaries the research also used a traditional postal and an in-house collection. For the consumers' online survey several social networks were used to collect the data from Portuguese wine consumers living in Portugal (Startracker, Linkedin, Plaxo). For intermediaries the research used the databases from professional boards (APED Uniarme/Unimark) and from events organizations where wine intermediaries were also present (Essência do Vinho, Encontro dos Vinhos e Sabores). This allowed contacts with some of the most representative wine intermediaries in Portugal. Internet research was also used to contact the intermediaries directly. All the supermarket chains were contacted but only two replied. In view of low response rates (around 8%), it was decided to also resort to in-house contact. The final response rate for all contacted intermediaries was 15%. All the producers were approached through an on-line survey, receiving an e-mail with the link to the survey site of the directly asked main wine boards (Viniportugal, CVRVV, CVRD, IVPD, CVRA, CVB).

Questionnaire: The measurement instrument used was a common scale to all three samples (consumers, intermediaries and producers), where consumers were asked to rate the importance they give to each attribute on a regular wine-buying occasion (excluding special occasions). Intermediaries and producers were asked to rate the same items according to what they felt consumers would give more importance on the same buying occasion. The scale development stages are showed in Tab. 4. (for the questionnaire see appendix 1.).

Table 4. Procedure adopted for developing the scale

Step 1	Defining the construct and identifying the dimensions	A literature review was conducted in order to check for conceptual models and to establish the key dimensions and variables to include in the scale.
Step 2	Generate the items and design the scale	The initial pool of items was generated and pre-tested qualitatively.
Step 3	Collect data from a pretext sample	An initial scale was developed and pre-tested quantitatively to generate the final set of variables.
Step 4	Statistical analysis and purification of the scale	The data collected was tested for is reliability and dimensionality. Although the initial scale was statistically reliable according to the Cronbach α and to EFA, some suggestions about the items to exclude/include were made and the scale was adjusted.
Step 5	Collect more data from a different sample	A larger sample was used and tested targeting a less wine knowledgeable population, subsequently followed by other four sub samples that were used to confirm and compare the results amongst them.
Step 6	Evaluate scale reliability and validity	The different sub samples were tested (Cronbach α and EFA) and no meaningful changes were suggested by the reliability and validity analysis.
Step 7	Prepare the final scale	Additional data was collected using the same scale to obtain the final sample.
Step 8	Evaluate final reliability and validity	A final reliability and validity test was conducted to all the three different samples.

Steps adapted and expanded form Churchill (1979); Churchill and Iacobucci (2005) and Malhotra (2004).

3.1. Scale Development

Building a measurement scale is a process involving both theoretical and empirical considerations, suggesting a relationship between the observed measures (the score obtained) and the unobserved and immeasurable concept that is represented by the answer (Carmines and Zeller, 1979). The procedure to build the scale was based upon the recommendations of Churchill (1979), Churchill and Iacobucci (2005) and Malhotra (2004). Both contributions were used in order to achieve a more exhaustive procedure. As the data collection instrument was based on a set of attributes rather than theoretical constructs measured on a Likert scale, some of the scales validation were inapplicable, namely those dealing with construct validity (convergent; discriminatory and predictive).

The scale used in this research was based on the classifications proposed by Spawton (1991), Rouset and Seguin (2003) and by Verdú *et al*. (2003). The different items proposed by these authors were condensed into a list and were discussed in personal interviews with ten consumers, five producers and five intermediaries. Additionally, five scholars were asked to pre-evaluate the scale. The next step, concerning the choice of the best structure and wording for the scale (Malhotra, 2004), was also evaluated by these groups. Some alternatives were presented in the marketing research literature (Malhotra, 2004; Churchill and Iacobucci, 2005) for this type of construct. The chosen scale configuration was an importance rating scale as it presented a more neutral measure of each item. It was also considered as more adequate to replicate the wine choice decision-making. The alternative use of a Likert scale was dismissed in the qualitative stage as some of the sentences could generate bias (like one of the sentences tested: "I prefer a more alcoholic wine" that caused some inhibition to respondents). Also the choice of the statements is particularly delicate as "identical statements produce widely different answers" (Churchill, 1979, p. 68). A semantic differential seemed inappropriate (for instance, choosing between low and high alcohol) and some of the cases like colour did not have a semantic differential between them. The scale used nine intervals to obtain more sensitivity to average differences and used only the descriptions of "not at all important" to "very important" in the lower and upper end of the scale (see appendix 1.). This scale presents less potential bias as the consumer considers it as the less subjective measure to represent their pre-consumption choices. The purpose of the scale was for consumers to rate the different attributes according to the importance they give to each attribute when they are choosing wine in a common purchase occasion (thus avoiding the subtleties of choosing wine for special occasions).

An initial scale of 24 items was developed (see appendix) and submitted in a pre-test to 46 respondents. The scale reliability was measured by the Crombach alpha that presented a value of 0.95, significantly above the acceptance level of 0.70 (Hair *et al*., 2010) and no item presented an increased 0.001 in the overall value scale if deleted.

As a measure of double-checking the different data collections, different groups were used and all of them were analyzed regarding their reliability. An initial sub-sample was used for the initial pre-test with an initial version of the scale that was not included in the final database. A less wine knowledgeable sample that included people with lower qualifications was used in order to evaluate the reliability of the scale in those conditions. As expected due to differences in the populations, the overall alpha dropped from 0.95 to 0.85. The main steps in the data analysis are described in Tab. 5.

Table 5. Main steps in the data analysis

1. Questionnaire checking and data cleaning	Missing values and outliers were deleted in all samples and the Mahalanobis distance was used to identify cases with strange patterns of scores (Pallant, 2005) that were deleted from the final sample.
2. Instrument reliability and validation	The scale was tested in relation to its reliability and validity as described in Tab. 5.
3. Comparison of dimensionality across samples	An exploratory factor analysis was conducted to the 3 groups to check their pattern of dimension across groups.
4. Correlation comparison between factors and global quality	The factors were compared against the importance given to the global quality to find out the relevant correlation.
5. Group gap comparison	A comparison of the major gaps was performed due to the sample and data limitations based on non-parametric tests for both the two-way (Mann-Witney) and the one-way between groups (Kruskal-Wallis) where differences between the several clusters were analysed.
6. Cluster analysis	A cluster analysis was performed to establish the sub-groups on each sample. The clusters were then compared based on their cluster centres.
7. Cluster gap comparison	The two-way and the one-way non-parametric tests were performed for the different clusters. The squared Euclidian measurement between the clusters for the tangible and intangible was also established.

3.2. Scale reliability and validity

The overall scale alphas are presented in Tab. 6. None of the variables, if deleted, showed a significant increase in the overall alpha of the scale, so all of them were included in the next step of the analysis. The alpha was higher in the case of the producers where only one variable (price) if deleted, would marginally increase the overall scale alpha (0.882). In the intermediaries sample only two variables if deleted would increase the alpha from 0.897 to 0.90, so the items were kept.

Factor analysis is used for content validity, which is a subjective but systematic evaluation of how well the content of a scale represents the measurement task at hand (Malhotra, 2004; Carmines and Zeller, 1979). The exploratory factor analysis of principal components will allow an evaluation of the underlying structure that emerges from the variables of the scale. It allows a scale dimensions evaluation and also creates new composite measures (Hair *et al*., 2010). The use of exploratory analysis seems sufficient due to the exploratory nature of the research that does not aim at testing specific hypothesis (Kline, 2008). A separate factor analyses was conducted (Tab. 6) in order to evaluate the scale dimensions in all three samples, and also the main differences in the perceived dimensions of wine. The reference point here is the consumer's classification as the question asked to producers and intermediaries was about what they think the consumer valued most.

3.3. Measurement of groups' differences

A comparison of the differences amongst the three groups was based on the averages of each variable that had the higher loading in the consumer's factor (as the factor scores cannot be used for mean comparison purposes). As the conditions for conducting a parametric test between 3 groups with 8 variables (normality of the variables and similar group sizes) are not met, the choice relied on non-parametric tests: Mann Witney U for the paired comparisons of the groups and the Kruskal-Wallis for the one-way between groups analysis (Daniel, 1990; Siegel and Castellan, 1988).

Due to the fact of having a large consumer's sample and that both intermediaries and producers had different sizes and types of business amongst them, a cluster analysis was conducted based on the key wine attributes. This allows a more thorough analysis of group differences and prevents an overgeneralization of the results between the three samples. Another reason for this type of analysis is the evidence of previous researches that found differences both in wine consumers and in intermediaries (Perrouty *et al*., 2006; Oliveira-Brochado and Martins, 2009). The main objective of this cluster analysis is to evaluate whether the initial differences found in the first group are only due to generalization or if significant differences can also be found amongst smaller groups.

Considering the consumers' sample was large and the recommendation by Hair *et al*. (2010), the first approach was to use the two-step method to determine the optimal number of clusters for each sample. For the cluster characterization and determination of its cluster centre, the method used was the K-means non-hierarchical method that assigns individuals into clusters once the number of clusters is defined. In order to have a sound methodological consistency, the same method was used in the other samples. The squared Euclidian distance was also obtained to evaluate the clusters distances based on their cluster centres as it is the recommended measure of similarity between clusters (Hair *et al*., 2010).

4. RESULTS

The factor analysis with the varimax rotation (Tab. 6) extracted eight main factors: only two for intrinsic attributes and six for extrinsic attributes (Tab. 7) indicating a more complex perception of the extrinsic attributes by the consumers. The main factor is an extrinsic factor that relates the external references with reputation and awards. Another extrinsic factor, winemaking technique, accounted for 10% of the explained variance and includes all the production factors along with grape variety. The third factor is communication that includes the advertising and promotions variables plus the point of sale that also acts at a communication level. The fourth factor is based on attributes such as region, colour and, to a lesser extent, producer and brand name being designated as individuality since it relies mainly on the attributes that make each product unique. Factors 5, 6 and 7 present a very clear interpretation: factor 5 (packaging) loads together packaging and label, factor 6 (tasting) flavour and aroma, and factor 7 (price) loads price and price/quality ratio. Factor 8 is the second intrinsic attribute and it includes all the physical-chemical attributes such as acidity, sweetness and alcoholic degree.

It can also be seen from Tab. 7 and Tab. 8 that there are very different factors according to the different groups. The same variables (but with different loadings) can be found in the physical-chemical factor that is the only one common to all three samples. The communication factor shares the most significant variables within both the consumers and producers sample. Regarding the intermediaries, this communication factor appeared associated with the most significant variables that constitute the references factor in the consumer and producers samples. In the intermediaries and producers samples there are more extrinsic attributes (4) than intrinsic (2 for intermediaries and 1 for producers). In both cases, there are two factors where intrinsic and extrinsic attributes appear mingled together.

The factor correlation (Tab. 7) with the global quality importance shows that quality is more associated with the extrinsic factors such as packaging and communication, and only with one intrinsic attribute (taste) in the consumers. Price and production factors have only a marginal correlation with the perception of quality. In this case, it suggests that the intermediaries believe that consumers associate quality significantly more with production tasting factors and, to a lesser degree, with price and region factors. Producers correlate quality significantly with the taste factor and, to a lesser extent, with the producer/brand – packaging factor. This shows a clear gap in the factor that each one associates with quality – with consumers giving more relevance to extrinsic factors.

Table 6. Group comparison between factor loadings and correlation with product quality

Sample	Consumers N = 594								Intermediaries N = 77							Producers N = 143					
Alpha	.842								.897							.881					
KMO	817								715							792					
eigenvalues > 1	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	1	2	3	4	5	6
Total var. expl . %	24.1	10.2	7.9	6.6	5.7	4.6	4.3	4.3	31.5	12.5	7	6.1	6	5.3	4.5	28.2	9.4	8.0	7.4	5.9	4.7
Alcoholic degree								.630			.641		.519					.637			
Acidity								.764					.751					.704			
Colour				.594											.885						
Sweetness								.724					.774					.710			
Region				.692										.528							.652
Price							.861							.764							.642
Producer				.554							.714					.759					
Brand Name				.552								.607				.722					
Packaging					.886							.836				.695					
Label					.886							.816				.639					
Grape variety		.532								.773											
Flavour						.775				.572										.736	
Aroma						.806				.761										.702	
Vintage year		.516								.669							.513				
Winemaker		.763								.546	.566					.557					
Wine making		.807								,663						,541					
Awards	.658										.550										
Price/qual. Ratio							.775			.524										.788	
Global reputation	.593								.553		.511										
Press refer.	.817								.621								.895				
Opinion leader's references	.797								.659		.556						.855				
Place of sale			.716						.750								.535		.529		
Advertising			.781						.917										.705		
Promotions			.780						.925										.749		
Factor correlation with global quality	.054	-.123(**)	.333(**)	.069	.400(**)	.254(**)	.096(*)	.054	-.053	.543(**)	.007	-.109	.120	.312(**)	.169	.191(*)	.091	.031	.004	.634(**)	.067
Sig.	.188	.003	.000	.094	.000	.000	.019	.188	.649	.000	.950	.347	.300	.006	.141	.022	.279	.709	.960	.000	.430

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed). Only items with loadings above 0.5 are showed.

Table 7. Labels of factors found in the three samples

	Consumers Factors	Categorization
1	References and reputation	Extrinsic
2	Production	Extrinsic
3	Communication	Extrinsic
4	Individuality	Extrinsic
5	Packaging	Extrinsic
6	Tasting	Intrinsic
7	Price	Extrinsic
8	Physical-chemical	Intrinsic

	Intermediaries Factors	Categorization
1	Communication - References	Extrinsic
2	Tasting - Production	Extrinsic - Intrinsic
3	Individuality	Extrinsic
4	Packaging - Brand	Extrinsic
5	Physical-chemical	Intrinsic
6	Price	Extrinsic
7	Colour	Intrinsic

	Producers Factors	Categorization
1	Brand – Packaging	Extrinsic
2	References	Extrinsic
3	Physical-chemical	Intrinsic
4	Communication	Extrinsic
5	Price/quality – Taste	Extrinsic – Intrinsic
6	Price - Region	Extrinsic

The one-way analysis shows (Tab. 8) that the only attribute where the three groups don't differ significantly is in the importance given to acidity (intrinsic attribute). In all other attributes there is no convergence between the three groups. However, in the two-way analysis it is clear that there are other attributes where the producers and intermediaries are closer to the consumers' means: no gaps were found between consumers and intermediaries in aroma (intrinsic) and between consumers and producers in winemaking (extrinsic). Both producers and intermediaries have only significant differences in region and aroma.

Table 8. Mean differences between consumers, intermediaries and producers

	Averages			**Mann-Whitney U**			**Kruskal Wallis**
	X	X	X	sig.	sig.	sig.	**Asymp. Sig.**
	Consumers (C)	Intermediaries (I)	Producers (P)	C/I	C/P	I/P	C/I/P
Acidity	5.5	5.7	5.5	.608	.616	.430	0.737
Region	7.0	8.2	7.7	.000	.000	.001	0
Price	7.0	8.2	8.4	.000	.000	.738	0
Packaging	4.9	6.5	7.0	.000	.000	.141	0
Aroma	7.1	7.2	6.7	.534	.001	.011	0.002
Winemaking	3.8	4.5	4.1	.004	.051	.222	0.004
Press ref.	5.0	6.7	7.1	.000	.000	.119	0
Advertising	4.1	6.7	6.5	.000	.000	.256	0

Tab. 9 shows the two-step proposed clusters (two groups for each of the three samples). The customer groups (Cs) shows no similar means between them. The intermediaries clusters (Is) have no significantly different mean in price. The producers clusters (Ps) have similar means both in price and region.

Table 9. Mann-Whitney and Kruskal-Wallis test of similarity of the attributes between clusters

	Attribute Means							
Clusters	Acidity	Region	Price	Packaging	Aroma	Winemaking	Press ref.	Advertising
Consumers C1	6.3	7.8	7.3	6.0	7.7	5.3	6.2	5.2
Consumers C2	4.9	6.4	6.8	4.2	6.7	2.6	4.1	3.3
Intermediaries I1	6.5	8.5	8.6	7.5	8.2	5.9	7.9	7.4
Intermediaries I2	5.0	8.0	7.9	5.6	6.3	3.2	5.6	6.1
Producers P1	6.4	7.9	8.3	7.8	7.4	5.4	7.6	7.0
Producers P2	4.4	7.6	8.4	6.0	5.9	2.7	6.5	5.9
Pairs of Clusters	Mann-Whitney Asymp. Sig. (2-tailed)							
C1 C2	.000	.000	.000	.000	.000	.000	.000	.000
C1 I1	.491	.001	.000	.000	.017	.081	.000	.000
C1 I2	.000	.412	.006	.326	.000	.000	.011	.001
C1 P1	.735	.955	.000	.000	.020	.457	.000	.000
C1 P2	.000	.229	.000	.818	.000	.000	.078	.002
C2 I1	.000	.000	.000	.000	.000	.000	.000	.000
C2 I2	.873	.000	.000	.000	.163	.005	.000	.000
C2 P1	.000	.000	.000	.000	.004	.000	.000	.000
C2 P2	.062	.000	.000	.000	.000	.278	.000	.000
I1 I2	.001	.015	.077	.000	.000	.000	.000	.001
I1 P1	.669	.002	.191	.393	.001	.285	.087	.194
I1 P2	.000	.000	.146	.000	.000	.000	.000	.000
I2 P1	.000	.467	.391	.000	.001	.000	.000	.009
I2 P2	.104	.094	.452	.310	.268	.067	.001	.451
P1 P2	.000	.286	.884	.000	.000	.000	.000	.000
Kruskal-Wallis Asymp. Sig	.000	.000	.000	.000	.000	.000	.000	.000

Although the clusters separated the three samples into groups with different sensitivities to the importance of each attribute, they still share some similarities in their mean ranks. Region and price are the attributes with the highest means in all of the groups. Aroma is second for both of the consumers clusters, third for intermediaries and only fifth for producers. Price is the attribute with the highest mean for all the intermediaries and producers clusters. The main difference between the consumers clusters is the differences between region (highest mean for C1) and price (highest mean for C2).

The consumers cluster one (C1) exhibits more similarities in the importance given to region with the intermediaries cluster two (I2) and with both producers clusters (P1, and P2). The consumer cluster two (C2) is clearly more distant from the other clusters (only two similarities with the intermediaries cluster two (I2) in acidity and aroma and with the producers cluster two (P2) in acidity and winemaking). Acidity is the attribute where the means are more similar (four similarities between the consumers and the other groups, followed by region and winemaking with three and packaging with two). Aroma has only one similar average [between the consumer cluster two (C2) and the intermediaries cluster two (I2)]. Price and advertising are the attributes where there are no similarities between the consumers, intermediaries and the producers clusters. Those are clearly contrasting with the closer means in these attributes between the intermediaries and producers groups.

None of the groups seems to have very significant differences in their composition, with size being the most relevant difference between both consumers clusters. All the other metric variables were not statistically different in any of the group's suggestion that the importance given to each attribute by consumers is independent of age, sex, education, residence and income.

Tab. 10. shows that all different clusters are closer in their perception of the importance of the intrinsic attributes than in the extrinsic ones. In the intrinsic attributes, when the intermediaries and producers clusters are closer to one of the consumer clusters, they are, alternatively, more distant from the other consumer cluster (with the exception of the producers cluster one (P1) that is equally distant from both of the consumers clusters). In the extrinsic attributes, the intermediaries and the producers are closer to the consumers cluster one (C1), being the intermediaries cluster one (I1) and producers cluster two (P2) closer to both of the consumer groups. This shows that it is more difficult to reach the consumers understanding of the extrinsic attributes than of the intrinsic ones, as the gaps are much higher between the consumers clusters and the remaining groups.

Table 10. Clusters proximity matrix of the squared Euclidean distance for intrinsic and extrinsic attributes

Clusters	C1	C2	I1	I2	P1	P2
Cluster Size	256	338	40	37	75	68
Intrinsic attributes						
Consumers C1	0.0	2.0	5.0	1.0	1.0	8.0
Consumers C2	2.0	0.0	1.0	5.0	1.0	2.0
Intermediaries I1	5.0	1.0	0.0	8.0	2.0	1.0
Intermediaries I2	1.0	5.0	8.0	0.0	2.0	13.0
Producers P1	1.0	1.0	2.0	2.0	0.0	5.0
Producers P2	8.0	2.0	1.0	13.0	5.0	0.0
Extrinsic attributes						
Consumers C1	0	20	6	14	13	7
Consumers C2	20	0	22	58	57	27
Intermediaries I1	6	22	0	16	13	1
Intermediaries I2	14	58	16	0	3	13
Producers P1	13	57	13	3	0	10
Producers P2	7	27	1	13	10	0

5. CONCLUSIONS AND IMPLICATIONS FOR MANAGEMENT

The factor analysis showed a higher perceived product complexity in the consumers' perceptions than the intermediaries and producers' perceptions, obviously demonstrating a multi-dimensional evaluation of wine. The consumers' factor analysis gave a very clear idea of their perception of the attributes' classifications: all attributes seem to be included in a logical and natural division of dimensions between tangible and intangible attributes. The only exception is the colour attribute that appears associated with region, producer and brand name. Initially, it seemed odd but it may be due to the fact that some Portuguese regions (and also brands) are associated more with one particular colour of wine (e.g. Vinho Verde perceived mainly as a white wine region). This may have implications on brand strategies, suggesting that there should be individual brands according to the wine colour instead of the typical brand extension that uses the same brand for red, white or even rosé (Sogrape, the largest Portuguese wine company, acknowledging that, now only concentrates the Mateus brand on rosé products).

Another significant finding of the consumers' factor analysis is that origin and brand fall under the same factor, thus presenting some evidence that sustain Perrouty's (2006) findings by which brand is associated with origin in wine. This does not happen significantly in the intermediaries and producers' attributes, suggesting a gap in the perception of the association between brand and region of origin in these groups. Moreover, it points to an even more confusing distinction between attributes: region shares the same factor with acidity in both cases. This may be explained by the fact that, again, some regions were traditionally associated with specific levels of acidity (in the case of Vinho Verde, where wines should have a minimum of 6g/l of fixed tartaric acid). Although consumers created a distinct dimension only for price, both producers and intermediaries associated price with region. This association also implies that in the intermediaries and producers' mind, region is associated with price since some regions seem to be more associated with higher or lower prices as demonstrated in the study of Freitas Santos and Cadima Ribeiro (2003). However, this is not the case in the consumers' perspective and should be taken into account.

Another key dimension is communication at the level of promotions/advertising and point of sale. This factor has a critical nature in the literature classifications, as it can be both tangible and intangible, depending on whether it can be seen at the place of sale. In some cases, it can be in both levels, as some typical wine promotions at the point of sale consist of providing wine tasting to the consumers.

From the consumers' perspective, the main product dimensions are not just split in two categories of intrinsic and extrinsic attributes, but all the factors found can easily be labelled in one of the two categories. Regarding the second type of classification, there is not a simple dichotomy in the extrinsic attributes between tangible and intangible attributes; namely the latter distinction depends on what is shown on the label (and back label). The production dimension, although deeply shaping the intrinsic attributes, cannot be fully experienced when a wine is consumed and is on an extrinsic level as the consumer can only notice it when it is referenced on the label (or has prior knowledge of the attributes composing it). This dimension also seems to be a kind of extrinsic factor that is a precursor of the intrinsic product itself, evidencing its agricultural nature. Nevertheless, it cannot be considered an intangible attribute due to the fact that some of its variables (the winemaker, winemaking techniques) can be either omitted from the information provided or become the central image on the front label.

The most intangible factor seems to be the wine reputation, and the awards (one of the variables in this factor) that are many times also included in the packaging. For the remaining dimensions, there is a clearer distinction between those that are extrinsic but tangible like packaging, price and the production factors seen on the label, and the purely intrinsic and tangible factors such as flavour, aroma and the physical-chemical characteristics. This leads to the conclusion that, although consumers distinguish clearly between variables that are purely intrinsic and tangible — that are the experienced attributes according to Nelson's (1975) classification — there is another level of extrinsic attributes that cannot be simply split into tangible or intangible. The findings also imply that consumers separate the wine-critical dimensions between the symbolic dimension (reputation and references, communication and individuality) and the intrinsic quality (taste, physical-chemical attributes) as suggested by Garvin (1987).

The correlation that each of these factors has with the perceived importance of the overall product quality is another clear example of the differences in the attribute perceptions between the consumers, on the one hand, and the intermediaries and producers, on the other hand. For consumers, none of the dimensions correlated strongly with quality. The dimension that has a medium correlation with quality is the packaging factor; this can be explained by the fact that most of the quality cues are exposed in the wine label and packaging. Another extrinsic dimension that has a medium correlation with quality is communication, demonstrating the impact that good communication can have on consumers' perceptions of the product quality. The taste factors, as well as price, have small correlations with quality. Surprisingly, the production factor has a small, but negative correlation with perceived quality, maybe suggesting that these are either devaluated or misunderstood by consumers.

For intermediaries, there is a strong correlation between quality and the tasting/production dimension. This suggests a perception from their side that consumers would relate this factor much more with quality than what is actually the case. They also have a medium correlation between quality and price and region. Producers have also a strong correlation with the price-taste factor.

The means comparisons test of the three samples showed that the single variable showing no significant differences in all groups is an intrinsic attribute (acidity) while all others differ significantly. On price, both intermediaries and producers share a similar means, but these are the ones where they have the highest gaps with consumers. Therefore, regarding the two intrinsic attributes, one common understanding was found between the three groups in one attribute (acidity) and between consumers and intermediaries in another (aroma), explained by its tangibility and the fact that they are experienced attributes. The convergence in aroma is possibly explained by the fact that they are close and in touch with the consumer's preferences, as in the case of retailers and restaurants. Between the consumer and the producer there's a convergence in winemaking that is latter verified on the convergence between clusters (C1/P1 and C2/P2), implying that some producers know that consumers do rate it differently reflecting their level of involvement with the product. The gaps are much higher on the extrinsic attributes, namely price, press references and advertising, suggesting that producers and intermediaries tend to overestimate their importance. In the cluster analysis of means differences, it is also significant that the producers and intermediaries have less convergence on the perception of the importance given by the largest consumer group (C2). On the extrinsic attributes, there is a significant gap on the price attribute between the consumers clusters and the other producers and intermediaries clusters. All the intermediaries and producers groups share similar price means between them but within the consumers clusters the difference among them on price is significantly different. This demonstrates an excessive emphasis on price, an idea that consumers clearly do not share. In the intrinsic attributes there's less distance because as they are experienced attributes, they tend to be less ambiguous and subjective than the extrinsic ones. The close associations between the intermediaries and the producers may imply contamination of information between them that is not the most accurate regarding the consumers' preferences.

The largely detailed outlook given by the communalities between the different sample clusters shows that the consumers smallest group (C1) shows higher means, thus giving more importance to all attributes except price, which may suggest a higher involvement with these wine attributes. It also suggests that the segmentation of wine consumers should be based on the attributes rather than on geo-demographic variables/criteria.

This research showed some of the common bias among producers and intermediaries concerning their perceptions of what consumers rate as more important in a regular wine buying decision. The most flagrant biases are on the extrinsic attributes such as advertising, press references and packaging that consumers tend to underrate. The gap in the price assumes a crucial importance since it is perceived as the most important factor to the consumers and producers (with the exception of the intermediaries' second cluster where it is the second after region). The extrinsic attributes' differences suggest that there is an opportunity for producers to differentiate themselves in these levels but only by matching their consumers' perceived importance. In order to do so, both producers and intermediaries should increase their market research on consumer preferences in order to match their need and wants in a more efficient way. Producers shouldn't rely only on the information passed by intermediaries and should evaluate the consumers directly. Intermediaries should take advantage of being closer to consumers and make a more direct evaluation of their consumers' preferences.

5.1. Limitations

The fact that there was no cooperation from the producers nor from the intermediaries to allow for a triadic comparison between the three groups, limited the scope of the results as the comparison had to be made between groups that may not have strong relationships amongst them. The scale that had to be built specifically for this research was based on previous literature proposals and, although previously validated, it still has to be further evaluated in other researches. The nature (convenient samples) and size differences in the samples, as well as the lack of normality of the data, prevented the use of more robust parametric tests.

5.2. Suggestions for Future Research

Future research can apply the scale to other contexts and test it in real life situations where consumers can see and taste a specific product. It should also try to see the impact of their attribute evaluation on their purchase behaviours. Further attempts to match the samples of consumers, producers and intermediaries should be made by using the companies with the largest market share. This would allow for significant samples inside the organization and a large number of intermediaries and consumers of their products. Further research could also use comparisons between the wine press and opinion maker perspectives as they have a key role in influencing all the other groups that were studied in this project. These other researches should focus on the measurement of market orientation of both producers and intermediaries that can help explain the gaps found here.

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APPENDIX 1.

Table 11. Proposed Scale

Proposed Scale (final version)
Not at all important (1) to Very Important (9) 1. alcohol 2. acidity 3. colour 4. sweetness 5. the flavour 6. the aroma 7. region 8. price 9. producer 10. brand name 11. packaging 12. label 13. grape variety 14. vintage 15. winemaker 16. wine making technique 17. awards 18. price/quality ratio 19. global reputation 20. press references 21. opinion leader's references 22. place of sale 23. advertising 24. promotions B. The wine's quality