



Purchasing Still Wines: The Influence of Extrinsic Attributes

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

Aims: Purchasing wine in shops implies that the consumer makes a choice based on the extrinsic attributes of the product (eg packaging, bottle shape and design, labels and written information) rather than extrinsic information such the flavor or the taste of the wine. Various studies were undertaken in different countries and published that provide information regarding the extrinsic attributes that influence this choice. Focusing on studies addressing still wine purchasing in shops, this study aims to summarize the main attributes that intervene in the choice-making of wine for the geographical areas with high levels of consumption.

Study Design: The study was based on bibliographic research and its analysis.

Place and Duration of Study: The bibliographic research and analysis were conducted at the Laboratory for Research in Science of Agronomy & Biology (France) in November 2024.

Methodology: Bibliographic research was conducted using Google Scholar with keywords including influence, purchasing wine, bottle, packaging. Articles addressing sparkling wine, organic wine, online purchase, tourist consumers, and studies focusing on specific generations were excluded.

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Results: A total of 23 articles were selected, covering the period from 2006 to 2024. The increase in the number of articles over time illustrates growing interest in the topic. A significant correlation was found between the number of articles per country and the importance of the wine market ($r=.94$). Regardless of the country considered among those selected, the main criterion in consumer choice was the price followed by the label (design and content), and then the bottle shape. Attributes such as the wine's origin, vintage, and the food pairing - appreciated on the label - also influence the consumer choice. Important features of label design were identified.

Conclusion: Despite the undeniable effect of cultural differences across countries, which may influence consumer behavior differently when purchasing wine, a common set of extrinsic attributes was identified for selecting still wines in shops in the selected countries. The information that should be emphasized on the label, along with its design features, was determined. These findings may help wine producers, sellers and marketers reduce packaging costs by focusing on key extrinsic attributes during the design process and emphasizing features important to consumer choice.

Keywords: Behavior; choice, consumer, extrinsic attribute, perception, wine.

1. INTRODUCTION

Most of the time, in-store wine purchases are based on the perception of informative cues accessible to consumers: the packaging (in particular, the label on the bottle, including the graphic design of the writing and illustrations, as well as the colors and shape of the label), the shape and color of the bottle showing or not the color of the wine, and the bottle closure. Unless the consumer already knows the wine, the choice is based on these attributes which are extrinsic to the wine. This approach is very different from what happens when buying from the producer, where the consumer will do a tasting that will give access to the intrinsic attributes of the wine (the color of the wine, the aromas, the taste, the texture). Thus, attributes extrinsic to the wine take on their full importance in the purchasing process by the consumer in the store. This importance has been noted in many studies: "In packaging design, graphic is the most important visual expression language, which is an important factor to convey the image of goods. Graphic design has a strong visual impact in product packaging design, which makes the package attract the attention of consumers in a very short time, and then achieve the function of promotion [...]. Among the various visual elements of modern packaging design, the most active and influential factor is color, which as a modeling language can fully demonstrate the brand and personality of the product." (Zhang et al., 2023:64). Attention has also been put on the text: "Text is an indispensable element in packaging design. As an extension of graphics in graphic design and the main carrier in the process of information dissemination, commodity packaging needs to convey product information through text". More generally, "studies have

shown that the shape of the package and the ratio of the length can affect people's preference for the product, which in turn affects market sales (Raghubir et al. 2016; Zhang et al., 2023:65). This was emphasized for wine: "Labels on food and beverage products are important information sources that can profoundly influence consumer evaluations. This is particularly so for wines, where the text, design, and color of labelling appearing on both the front and back of the bottle will shape consumer reactions and guide purchase intent" (Joshi et al., 2024:15).

Spence (2024), adopting a psychological approach, differentiates extrinsic and intrinsic information: "product-extrinsic information often appears to outweigh the product-intrinsic sensory attributes of wine in people's hedonic (in not necessarily in their sensory-discriminative) ratings. Such findings therefore highlight the importance of cognitive as compared to direct sensory cues in the evaluation of wine." For Spence, extrinsic information relates to cognitive factors while intrinsic information is associated with sensory factors.

Despite the numerous studies available in literature, none has gathered the knowledge produced to try to identify the essential and common extrinsic attributes for different countries and cultures regarding the purchase of wine.

The aim of the present article is to:

- Explore the studies addressing the influence of cognitive factors (extrinsic attributes of the product) when purchasing still wine,
- Obtain an exhaustive list of the cognitive extrinsic attributes, and identify those that are common from one country to another,

- Summarize the factors that enhance or enforce the effect of each cognitive extrinsic attribute on the consumer's willingness to purchase the wine,
- In the field of marketing, suggest research perspectives to improve knowledge about the influence of extrinsic information when purchasing wine.

The results obtained must help wine producers and marketers to optimize their approach of worldwide wine markets.

As the scope is wide, the present study has been restricted to studies available in the literature for still wine, purchased in store (neither in winery nor online), this choice being made to be sure all cognitive stimuli can be explored by the consumer. The present study is also restricted to the following countries: America, New Zealand, Australia, Europe including Great Britain, China, and Russia. These countries were chosen because of the wine market they represent: see Table 1, calculated from data provided by the World Population Review (worldpopulationreview.com).

2. MATERIALS AND METHODS

Bibliographic research was undertaken using Google Scholar. The following sentence was used without quotation marks: [influence of KEYWORD of the wine when purchasing wine] where KEYWORD took the value [bottle] or [packaging] or [label].

In order to focus on the scope of the present study described in section "Introduction", articles addressing the following topics were excluded:

- sparkling wine, as the study addresses still wine,
- organic wine, because this is a specific extrinsic information that concerns few wines,
- online purchase, studies involving sellers advising during the choice process, to be sure that all extrinsic information could be explored by the consumer and not influenced by a third party,
- tourist consumer instead of domestic consumers in order to get results related to the local population of the geographical area considered in the article,
- focus on the specific generations, such as generation Y or millennials because this gives a partial insight of consumption behavior of a population,
- other geographical areas than those mentioned in section "Introduction".

When analyzing articles, special attention paid to the effect of cultural difference from one country to another. Indeed, several studies have highlighted this sort of influence: for example, Fauquet-Alekhine et al. (2014) reported and characterized the behavioral difference between East and West Europe consumers whilst purchasing wine: "the aesthetics features for purchasing wine are of different importance from one country to another". More recently, Valentin et al. (2021:1) noticed that "culture is an important

Table 1. Wine market over the world in 2022 (source: worldpopulationreview.com)

Geographical area	Annual wine Consumption (1000T)	Annual Wine Consumption Per Country of the Area (1000T)
China	2151	2151(**)
North America(*)	3412	1706
Russia	947	947
Australia	782	782
Europe	11494	338
South America(*)	1960	140
New Zealand	56	56
Others(*)	663	21
North Africa & Near East(*)	212	18
Ex Soviet Union Countries (except Russia) (*)	93	16
Central & South Africa(*)	498	15

**Designate a geographical area grouping several countries; **The value is the average consumption per country regarding the geographical area considered*

factor that influences how marketing interacts with food choice” and thus influences the perception of the product.

3. RESULTS AND DISCUSSION

3.1 Overall Analysis

Finally, 23 articles were selected. The articles cover the period from 2006 to 2024. The distribution of the publication year is shown on Fig. 1. Despite the difficulty of finding articles that match the selection criteria, a positive point is that more than a third of the studies are included in the last period (less than 10 years old) of which 50% are between 2023 and 2024. The first and last periods covering less than 10 years, an extrapolation for each period over 10 years gives an increase of 11% and 15% in articles addressing the explored topic between the two first and the two last periods respectively, thus illustrating the gain in interest.

The distribution of the articles per geographical area selected for the present study is presented on Fig. 2.

When comparing the proportion of articles per selected geographical area to the corresponding values of annual wine consumption per country of the area in 2022 reported in Table 1, the correlation coefficient is $r=.94$ ($p<.001$). This may illustrate how the market leads the research interest: it is clear that this sort of studies undertaken in a country such as Jordan, Lebanon, Oman or Iraq where the consumption is about 1000T a year (data from the World

Population Review for 2022), would not be relevant as useless.

Overall, the articles address the effect of the shape of the bottle (34.8%), the label (26.1%) and other features such as price, origine of the wine, brand, food pairing, category of wine (39.1%). This distribution determines the following sections.

3.2 Bottle Shape

As mentioned in section “Introduction”, the influence of the bottle shape on the choice of wine differs from one culture to another.

For Europe, the bottle shape is an important extrinsic cue that influences the choice (Faro et al. 2021) especially when the consumer is investing in wine (da Conceição et al. 2019). The bottle shape is also perceived as an indicator of quality (Faro et al. 2021): high shoulder bottle shape is associated with the perception of superior quality, and positively influences the consumer’s choice. The shoulders are identified as being the most important part of the bottle, influencing the choice of wine (Ozturk et al. 2023). However, it appears less important than other attributes such as origin, category of wine, and price.

In North America, the bottle shape comes after other cues in forming the choice and the relevant part of the bottle is the sealing of the bottle. This influences the choice in relation with the aim of the purchase: personal consumption, gift giving, or special occasion (Barber et al. 2009).

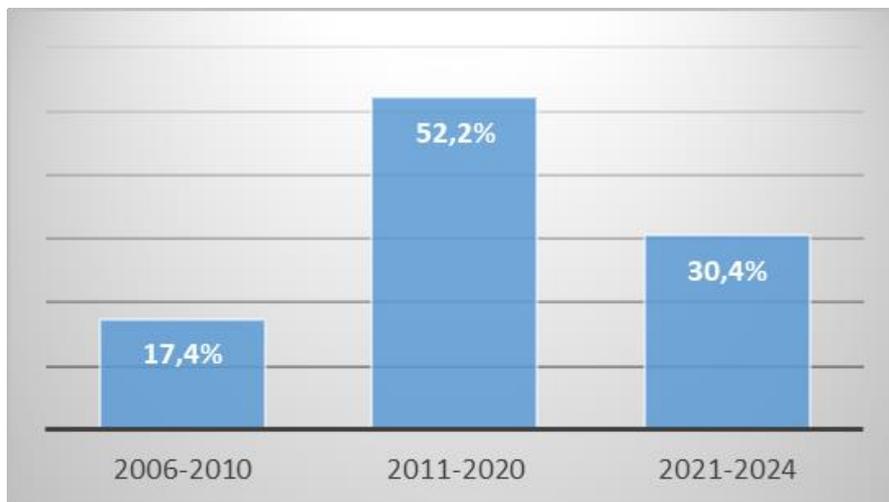


Fig. 1. Distribution of the selected articles per period

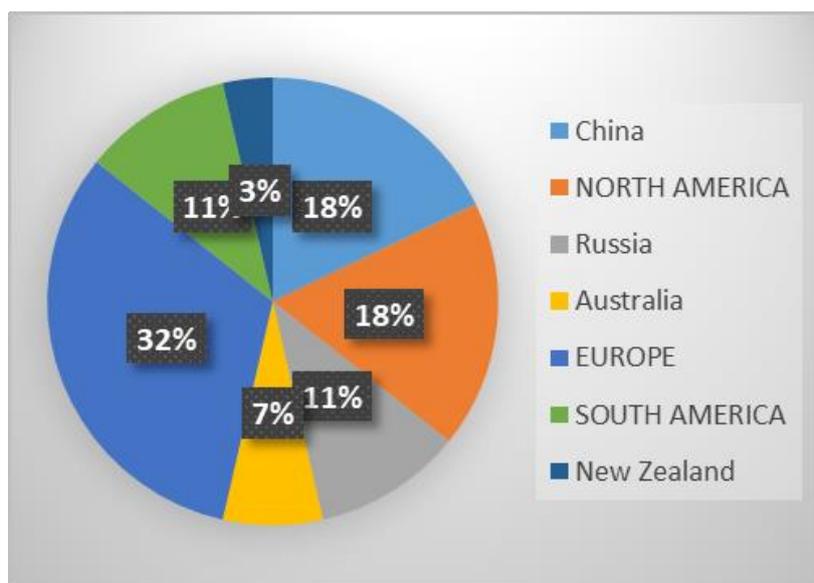


Fig. 2. Distribution of the selected articles per selected geographical area

This was also noticed in South America (Aqueveque 2023): the consumption occasion guides the choice of the wine based on the packaging cues.

For other selected geographical areas, no study mentioned the bottle shape as important for the consumer's choice.

3.3 Label

In Europe, the label (front and back) is a source of information that may give clues about the quality of the wine. A French study highlighted that AOC label, wine category, vintage, commercial brand & place of bottling are the information sought (Carsana & Jolibert, 2017). Beyond the informative aspect of the label, its design counts too: favorable perception was observed for labels with angular rather than rounded shapes (Faro et al., 2021).

In North America, label, and particularly the back label, are more important than bottle packaging (bottle shape and color have less influence). Regarding information on the back label, the most important is the origine, then the vintage and the brand (Barber & Almanza 2007). Consumers look for advice on the back label: "food-wine-pairings and symbols of food-wine-pairings received positive utility values, indicating consumers preferred these options more than having no pairing information present" (Kelley et al., 2015:516). "Black and white labelling increases consumer purchase intentions by

increasing the consumer's level of involvement and curiosity" (Joshi et al. 2024:15). A similar approach was observed in South America: "it provides them details about the quality of the wine [...] to attend to decisions about the authenticity of the product" especially for experienced consumers (Escandon-Barbosa & Rialp-Criado 2019:3).

Australia shows a similar trend than that of America: "elaborate taste descriptions and food pairing were found to be the most highly valued back label statements" (Mueller et al. 2010). The importance of the back label information for Australians was also reported by Lockshin et al. (2012).

In China, the main information on the label in the country of origine (Yu et al., 2009; Huiru et al., 2018; Hu et al., 2018).

For other selected geographical areas, no study mentioned the label as relevant for the consumer's choice.

3.4 Other Features

For Europe, price comes before the bottle shape (da Conceição et al. 2019, Chamorro et al. 2021, Coccia 2020, Corduas et al. 2013).

In North America, price is the most important criterion for choice, then variety and origin and brand and vintage, and then design (Barber et al., 2007 and 2009).



Fig. 3. Example of Spanish wines for sale in a store (August 2024, Catalogna), presented in the same corner of the store, numerous, thus bringing together a wide range of bottles adorned with animal labels

For South America, a study emphasized the importance of the symbolic values of wine in contributing towards a favorable attitude to wine in general (De Toni et al., 2022).

In China, “wine bottle packaging with no bottom cover, textured, irregular composition, serif fonts, and rounded shape attracts users’ attention more and receives higher scores on users’ subjective evaluation of aesthetic indicators” (Zhang et al., 2023:1). However, as for Europe and America, price is the main criterion to choose wine except for gift purpose (Yu et al. 2009).

For Russia, “Russian consumers do not pay attention to the origin of a product when they are buying. However, Russian consumers who have a positive image of France will be influenced in the product evaluation [if French]” (Plaud 2018:6). More generally, Russian consumers rank the preferred wine attributes for still red wine in decreasing order as follows: taste, flavor, certified origin, price (at mid-scale), origin, grape variety, vintage year (Cicia et al., 2013). Regarding the cost of wine, Russians are more attracted to special offers than price (Plaud 2018) but anyway, the cost of the wine comes just after the criteria “alcohol content” among the extrinsic information of the product (Plaud 2018). However, alcohol content and price were rated at a similar level in Cicia et al., (2013).

In addition, a cross-cultural study reported that consumers from “Old Wine countries” tended to give importance to grape varieties and regions vs brand name, especially in England, Australia, New-Zealand, and Brazil (Lockshin & Corsi 2012). Also, the study reported that “label image had the strongest effect and wine related images such as grape or chateaux graphics received the highest valuation, while unusual animals were

least preferred. Warm colors (red, orange) and neutral colors (white, black) had a positive effect on purchase intent” (Lockshin & Corsi, 2012:17). The authors also noticed that “unusual animals were least preferred” (Lockshin & Corsi, 2012:10). This last point must be considered with caution as many wines with animal illustration on the front label were recently observed on the selves of Spanish stores (Fig. 3).

4. CONCLUSION

The present study gathered results addressing the importance of extrinsic attributes for consumers purchasing still wine in shops. The analysis concludes that the primary criterion influencing consumer choice is price. The results also indicate that, in general, producers should pay particular attention to the label (both its design and content) and the shape of the bottle. Regarding the label, a traditional front label should be preferred (rectangular or classic shapes). Illustrations featuring grapes or castles receive positive evaluations, as do warm or neutral colors, which have a favorable effect on purchase intent. Concerning the content of the label (both front and back), consumers value information about the wine’s origin, vintage and food pairings. These details should be clearly and explicitly displayed and emphasized to guide purchasing decisions effectively. These extrinsic attributes represent the minimum requirement for packaging design, ensuring that the product is suitable for the widest range of markets, regardless of the country considered, as long as it is on the list studied in this article. This data is therefore particularly important both for reducing packaging costs (e.g, design and production) and increasing market share by tailoring packaging to the market especially since the present study

confirm that extrinsic attributes do influence consumer purchase of still wines across countries and cultures.

In addition to this research, two further perspectives merit consideration. The first is to conduct the same study for sparkling wine purchased in-store under the same conditions as the present study. The second is to look at online purchases of still wine, as online purchases were excluded from the scope of the present study. This last perspective is relevant for two reasons: on the theoretical side, to understand how the extrinsic attributes of wine are apprehended online where kinesthetic contact with the product is absent. From a practical standpoint, it could identify whether specific generations are particularly committed to this type of purchase and whether this behavior correlates with preferences for certain types of products sought. As an additional research perspective, studies could revisit the impact of front label illustrations. For example, the present study noted that consumers prefer classic illustrations on labels over original designs, avoiding the depiction of animals. But recent observations in Spain have shown that animal imagery has been widely adopted on many of the wine labels found on store shelves.

5. LIMITATIONS

The present study focused on the influence of extrinsic attributes when buying still wine in stores. Other attributes, which may play a role in the choice of wine, and which may intervene in a way prior to extrinsic attributes in the wine selection process, such as prior knowledge of the wine from having already tasted it, are not considered in this study. However, it is possible to hypothesize that this type of attribute may influence the effect of extrinsic attributes when buying still wine in the store.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Authors hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of this manuscript.

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COMPETING INTERESTS

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

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