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How the country-of-origin impacts wine traders' mental representation about wines: A study in a world wine trade fair



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ABSTRACT

Using data collected at a world wine trade fair, we study how the country-of-origin impacts wine traders' mental representation about wines. In the analysis we use traditional exporters in Old (France) and New (Argentina) world wine countries in comparison to non-traditional exporters in Old (Switzerland) and New (Brazil) world wine countries. Three main findings are reported. First, the country-of-origin of wines was more important on guiding participants' representations, than the category of countries the traders came from. Second, participants' evocations were more precise and specific for traditional wine-exporting countries than for less traditional wine exporting countries. Finally, the lack of traders' knowledge of wines from non-traditional wine-exporting countries produced associations and beliefs related to the image of the country itself. Our findings have important implications for the marketing and export activities of the wine industry.

1. Introduction

It is a recognized fact that access to export markets may help local firms to grow. In turn, this may create new employment opportunities for the economy as a whole. When a firm aims to become an exporter (or at increasing its existing exports via access to new markets or through the addition of new products to its export basket), it faces a number of challenges, including, amongst others: i) access to information about foreign markets (e.g. consumer requirements and tastes, legal regulations, business culture, marketing channels, and so forth); and ii) achieving a market reputation and/or getting quality certifications. In this regard, country-of-origin (COO) is an important indication that influences consumers' perception of a brand as reported and documented in the literature (Panda & Misra, 2014).

Nagashima (1970) had first conceptualized the COO phenomenon as the image that people associate or attach to products of a specific country, acting, according to Piron (2000), as the transfer of certain country perceptions and values as a halo effect. This image is an outcome of the national characteristics, economic status, culture, traditions, and the representation of products (Nagashima, 1970).

Parameswaran and Yaprak (1987) argued that the image of a product is dependent on the consumers' general perceptions about the country from where the product comes. More specifically, Srikatanyoo and Gnoth (2002) view it as the defined beliefs of a country's industrialization and national quality standard. Generally, in the literature, country-related aspects are: cultural identity, political climate, language, history, landscape, economic and technological development, religion and people (Kaynak et al., 2000). According to Lampert & Jaffe (1998) and Adina, Gabriela & Roxana-Denisa (2015), and depending on several aspects of the country, a country's image can be viewed as an asset when it has a positive connotation, and as a liability when it is associated with negative aspects. Furthermore, it has been generally found that a product's COO acts as an indication of product quality and also affects a perceived risk, as well as the likelihood of purchase (Papadopoulos & Heslop, 2003). From this, some studies highlight the multidimensional nature of country-of-origin effects (Chrysochoidis et al., 2007), explained by the differences in country-related economic, socio-cultural, political and technological factors. Consumers tend to have a positive bias towards products manufactured in developed countries and a negative bias towards those produced in developing

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countries (Thøgersen, Pedersen, & Aschemann-Witzel, 2019; Verlegh & Steenkamp, 1999). However, these perceptions may change over time due to technological advances, personal lifestyle or more sophisticated marketing techniques (Chuín & Mohamad, 2012).

Among beverages, wine occupies a prominent place, owing to the fact that wine belongs to a category of products that can stimulate a variety of representations (Amine & Lacoëuilhe, 2007; Rodrigues, Ballester, Saenz-Navajas & Valentin, 2015). It has also been known for some time, that wine is recognized as being fashionable all over the world (Rodrigues & Parr, 2019), and is one of the most frequently described beverages, often reported in many newspapers, books and journals (Brochet & Dubourdieu, 2001). All of this is due to the fact that the history of the vine and wine is so ancient, that it merges with the history of humanity. The grapevine is reported as our oldest cultivated plant (Fehér, Lengyel & Lugasi, 2007) and at present, production of wines takes place in many countries of the world, being intimately associated with their economies and cultures. Although this global reach is a consummate fact, some countries (e.g. France, Italy, Spain, Argentina, Chile, Australia and the United States) have become symbolic in wine production and dominate the international export market (OIV, 2019). Their strong market reputation provides them with a competitive advantage, because their products are more likely to be perceived more favorably than less known or reputed wine producing countries (Vrontis & Papisolomou, 2007). Several reasons may explain why some countries are better known in the wine industry than others. These may include agronomic aspects, such as the adaptation of the vine; the modernization of the wine industry, as well as human capital; the scientific development; the political investments; amongst others.

Wine is an experience good, a product, whose quality can be evaluated only after purchase and consumption. Theory states that consumers often rely on the price of experience goods as a cue to judge their quality. However, price is not the only indicator for quality, and many blind tasting experiments (Goldberg et al, 2008) have shown that there is no clear correlation between price and enjoyment. In a context where wine quality and the number of wine producing countries have been increasing (Jones, White, Cooper & Storchmann, 2005; Glänzel & Veugelers, 2006) marketing can be an important “watershed” in the development of the international wine trade. This is especially true in markets not yet fully consolidated, as is the case of countries with usually low export volumes or relatively new wine producing countries with a weaker reputation in wine production. Therefore, as a marketing strategy, and in order to facilitate trade relationships between wine-makers and intermediates (exporters and importers), several international wine fairs were formed around the world. Among these, the “ProWein International Wine and Spirits Fair”, in Dusseldorf, Germany, is among the largest and most famous international wine fairs. English is the official language of the fair which allows cultural and sensory exchanges among wine professionals from different parts of the world. This fair is also responsible for the launching of new products, as it helps set market trends in the wine sector and it is also the location where wineries meet with potential importers. In the business report of ProWein 2018 (ProWein, 2018), China was mentioned as the globally most attractive export market today, followed by Japan, Hong Kong, Scandinavia, USA, and Canada. In addition, in this report, wine exporters mentioned that the markets with the highest growth potential in the coming five years are Singapore, the Czech Republic, Taiwan and the United Arab Emirates. However, would the new wine-producing countries or those with still low export volume, be prepared to compete in both the new and the already established wine markets with emblematic wine producing countries? In this scientific study, we seek to explore this question by analyzing the mental representation of wine traders from countries with different involvement within the wine industry, regarding wines from producing countries with different levels of involvement in wine export markets. To do that, we begin by providing some concepts regarding the wine industry structure that we will follow as a model for our study.

1.1. Wine industry configuration: The old and the new world of wines – Traditional and non-traditional wine exporters

Many forms of conceptual classifications have emerged to categorize wine producing countries, mainly for commercial purposes. In this sense, the taxonomy based on the division of the geography of wine sector into two “worlds”, has been a great success of applicability. Publications such as “The World Atlas of Wine” claimed that the wine producing countries could be divided into a composition of “New World” and “Old World” (Johnson & Robinson, 2013). According to this classification, Old World wine producing countries are from Europe, namely, France, Portugal, Greece, Italy, Spain, Austria, Germany, among others. On the other hand, New World of wines includes former British, Portuguese and Spanish colonies such as New Zealand, South Africa, Australia, and many countries in North and South America. Following Remaud & Couderc (2006), as general characteristics, “Old World” has historically given primacy to the origin of the grapes, and for centuries, has mainly promoted their “appellations” or specified regions through regional, family-owned businesses, while “New World” has mostly supported labeling by the grape variety and strong proprietary brands.

Although this dichotomistic classification is largely used by academics and the wine industry stakeholders, some specialists have pointed out its conceptual weakness. Banks and Overton (2010) argue that the dichotomy “Old World/New World” is flawed because, among other things, this dichotomistic view does not recognize the significant and rapidly expanding production and consumption of wine in developing countries. These authors suggest a new concept called “Third World”, which refers to wine producing countries with lower income when compared to those from the “First World” and that have a heritage from European colonialism. Among them, Argentina, Chile and Brazil in South America, South Africa, Lebanon in the Middle East and Tunisia, Algeria and Morocco in North Africa. However, dealing with both concepts of production and consumption, Benoît et al (2019) suggest the concept of the “emerging country” as the most suitable when referring to countries that both produce and consume wine, such as Brazil and the Asian markets (except Japan), including not only India and China but also Hong Kong, Taiwan, South Korea, and Singapore.

These forms of classification, whether they are based on historical facts or concepts used by economic geography, seem to have a common denominator: the fact that “Old World” refers to European wine production. However, even this is challenged by some authors. A recently published article (Li et al., 2018) proposes the inclusion of China within the “ancient world” category of wine producing countries. Using evidence from literature on archaeological findings and old documents, the authors argue that China is an ancient country, and the presence of viticulture is much older than the modern viticulture which appeared in the 1950 s seems to suggest. In the same line of argumentation, some authors propose to use the same ‘Old world’ class to categorize ancient countries in Europe like Greece and Georgia. These conceptual deliberations have inflamed the discussion among experts and seem to affect how countries brand themselves in increasingly segmented international wine markets. Therefore, some authors (see Thorpe, 2009) adopt the categorical binary classification “Old World” / “New World” with the addition of subcategories for each category: “traditional producer” / “non-traditional producer”. These subcategories refer to both a country’s history as a producer (“Old World” vs “New World”) and a country’s contribution to world wine exports (“traditional” vs “non-traditional”). The latter category is also used extensively in the economic trade literature which refers to traditional exports/exporters and non-traditional exports/exporters (see for instance Balassa, 1977; World Bank, 1997; and United Nations, 2009). At product level, a non-traditional export refers to a product that had not been produced before in the country or that was traditionally produced for domestic consumption but is now being exported. Similarly, a non-traditional exporter in a given market refers to a country with low incidence in total global

exports of that product. Thus, for instance *France*, with its old and powerful industry, belongs to the category “Old world”, subcategory “traditional”, while *Switzerland*, which has a long history in production, but with a reduced presence in the international wine market as an exporter is classified as “Old World”, subcategory “non-traditional”. When we take “New World” producing countries as an example, *Argentina*, as one of the largest wine exporters, will be placed in the “traditional” subcategory, while *Brazil*, which contributes little to global wine exports, will be placed in the subcategory “non-traditional”. In this contribution, we used this categorical classification as the basis for our methodology, along with the addition of the category “consumers only”, which refers to non-wine producing countries importing wines to satisfy local demand.

1.2. Research aims and hypothesis

The main objective of this empirical study is to reveal wine traders' mental representation about wines from different wine-producing countries and to observe how the country-of-origin impact their representations. The inducing words (“the wines from a given country”) were chosen by i) their main classification within the “Old Word” (*French* and *Swiss* wines) or “New Word” of wines (*Argentinean* and *Brazilian* wines) and ii) the economic classification of exporters, in terms of their participation in global markets, with the subcategories “traditional exporters” for large exporters (*French* and *Argentinean* wines) and “non-traditional” for smaller exporters (*Swiss* and *Brazilian* wines).

Our hypotheses were the following:

H1 – Country-of-origin (COO) of wines will be more important than the different categories (wine producers/consumer only/new or old wine producer) and subcategories (traditional/non-traditional) to which wine traders belong to, on guiding their representations;

H2 – The stronger international presence of French and Argentinean wines will drive more precise and positive representations than countries with less prevalence in export markets such as Switzerland and Brazil;

H3 – Brazilian and Swiss wines, being less prevalent in international markets and unknown, will be responsible for generating more general representations.

2. Methodology

2.1. Participants

Two hundred and one wine traders (127 men and 74 women; average age 32 years old) participated in the experiment. They came from forty-four countries around the globe as illustrated on the map presented (Fig. 1). The color blue indicates **non-traditional wine producing countries of the new wine world**: *Bolivia, Brazil, Canada, China, Peru and Uruguay* (27 participants). Yellow indicates **traditional wine producing countries of the new wine world**: *Argentina, Australia, Chile, New Zealand, South Africa and United States* (32 participants). The green color designates **non-traditional wine producing countries of the old wine world**: *Armenia, Bosnia-Herzegovina, Bulgaria, Croatia, Georgia, Greece, Hungary, Israel, Kosovo, Lebanon, Luxembourg, Moldavia, Romania, Serbia, Slovenia, Switzerland, Tunis and Turkey* (76 participants). The violet color indicates **traditional wine producing countries of the old wine world**: *Austria, France, Germany, Italy, Portugal and Spain* (44 participants). Finally, the participants from countries that are **wine consumers only** (i.e. non producers) are represented by the pink color: *Belgium, Denmark, Finland, Japan, Lithuania, Sweden, the Netherlands and Ukraine* (22 participants).

Participants were volunteers and were enlisted by an intercept sampling procedure during the *ProWein World Wine Trade Fair 2018*, in Dusseldorf, Germany, in March 2018. They were asked to state their nationality and their occupation within the wine industry. Only responses from wine traders were kept for our analysis.

2.2. Data collection

2.2.1. Experimenters' training program

Before starting the experiment, the experimenters were trained by an experienced researcher to apply the procedure in the same way. The experimental training program of the word association task, included: (i) *explanation of the word association technique*; (ii) *how to approach people - stopping one in two randomly*; (iii) *how to explain to the participant the procedure before it started* and (iv) *how to enter the data on an Excel spreadsheet*. Finally, after all theoretical explanations, the experimenters practiced the technique with each other, under the supervision of the experienced researcher. The training session lasted approximately 1 h.

2.2.2. Word association procedure

The interviews were conducted separately by three experimenters and each lasted around 5 min. Experimenters positioned themselves at different points in the pavilion which were separated by the wine origin: wines of the old world (Europe) and wines of the new world (other countries). Participants were told that there were no right or wrong answers. In order to make them feel comfortable and familiar with the procedure, the experiment started with a warm-up phase (Rodrigues & Otterbring, 2019), through the following instruction: “I will tell you a word, please tell me everything that comes spontaneously to your mind when you hear that word”. They were then asked to mention the first words that came spontaneously to their minds when the interviewer said the word “sky”. After this familiarization phase, when participants understood the principles of the experiment, the study began. According to Moliner & Lo Monaco (2017), they were stimulated by a “continued free association technique”, where the experimenter asks the participant to associate several inducing expressions, always without constraint of production. The induction expression was: “When I say [*inductive expression*], what comes to your mind?” In order to evaluate the influence of COO of wines on wine traders' representation, the inductive expressions used were: [*French wine*] and [*Argentinean wine*], traditional wine exporters from Old and New world of wines, respectively and, [*Swiss wine*] and [*Brazilian wine*], non-traditional exporters from Old and New world of wines, respectively. The four inductive expressions were randomly proposed to the participants. All interviews were applied individually, in English (the official language of the world wine trade fair) and were audio-recorded.

2.3. Data analyses

2.3.1. Lemmatization and categorization

A verbatim transcription of the audio-recorded expressions was carried out. Before conducting any analysis, the evoked words were formatted and grouped. The first step was to verify typing while writing transcriptions and/or English spelling mistakes. The second step was to operate a lemmatization (Bécue-Bertaut, Álvarez-Esteban and Pagès, 2008) which converted every word into its standardized form, known as a lemma, by: a) deleting all connectors, auxiliary verbs and adverbs from each comment, and b) standardizing the evoked words in the infinitive for the verbs, singular for the nouns. The third step was to semantically regroup synonyms. The words with the higher frequency of elicitation were used to group and rename all of their synonyms. Finally, the fourth step dealt with ambiguous words which were difficult to regroup. These words were carefully analyzed by three researchers who decided if they could be regrouped or left as independent words (with low frequency of elicitation). This step was done cautiously to avoid over-interpretation or over grouping of words (Symoneaux, Galmarini & Mehinagic, 2012).

2.3.2. Correspondence analysis and hierarchical cluster analysis

According to Moliner & Lo Monaco (2017), correspondence analysis (CA) allows examination of the links between the associations and the variables that characterize the respondents. Thus, to highlight the

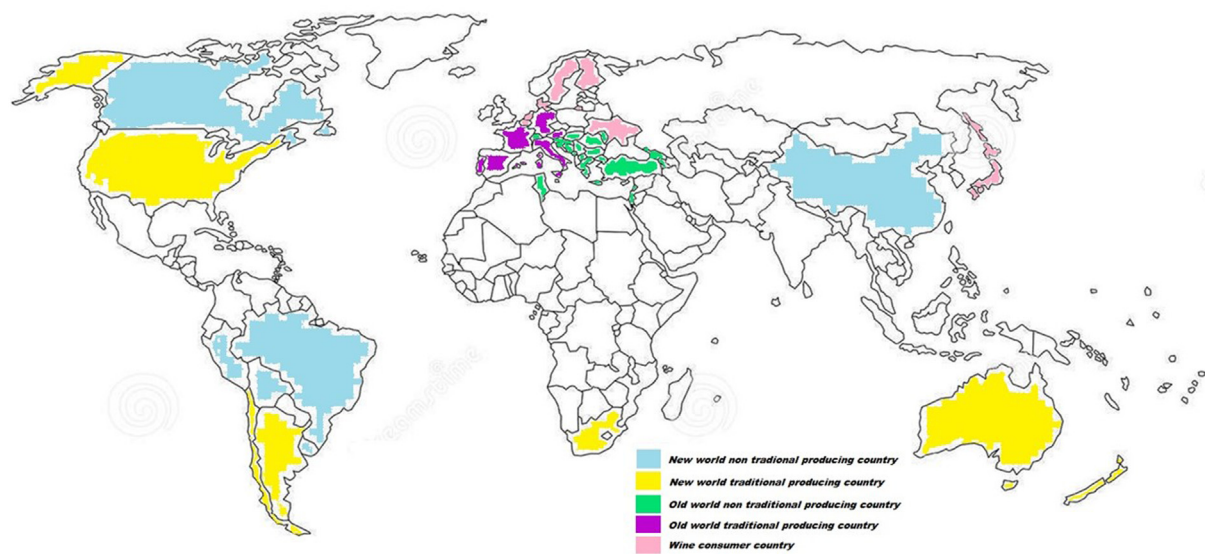


Fig. 1. World map with the distribution of participants according to their origin country in the wine world.

content of participants' mental representations, a CA was performed on the contingency table (containing the frequency of citation for each category of words) derived from the inductive expressions and categorical variables (old world traditional, old world non-traditional, consumer only, new world traditional, new world non-traditional). Only categorized words with a frequency of citation higher than seven (i.e. $\geq 4\%$ of citations) were considered for the analysis. Following, a hierarchical cluster analysis (HCA) with the Ward's method was performed on all the dimensions of the CA, to identify the relative similarities among the wine concepts linked to country-of-origin of wines, and the origin of participants. HCA uses an iterative algorithm in which, at each step, the pair of respondents (or cluster of respondents) with minimum distance are merged. Successive clustering operations produce a binary clustering tree diagram called dendrogram. The separation is then obtained by truncating the dendrogram. Taking into account the total number of respondents, we chose to truncate the dendrogram into three clusters. The validation of the clusters identified by truncating the dendrogram was performed using a consolidation approach by aggregation around mobile centers. The modalities defining best the resulting clusters were identified using a hypergeometric law (Lebart, Morineau, & Piron, 1995). All analyzes were performed with SPAD software (version 8.2, CISIA-CESRESTA, Montreuil, France).

3. Results

Fig. 2 shows the CA derived from the frequency of citation for the word categories generated from the four inductive expressions ([*French wine*]; [*Argentinean wine*]; [*Swiss wine*]; [*Brazilian wine*]) represented by the flag of their country generated by participants coming from different countries and classified according to categories and subcategories in our analysis ("Consumer", "Old World Traditional", "Old World Non-traditional", "New World Traditional" or "New World Non-traditional"). The first two dimensions explain 57.8% of the inertia of the experimental data, which is reasonable considering the diversity of origin of participants (categories and subcategories that they belong to) and categories of responses of the analysis.

Dimension 1 explains 34.91% and shows a convergence in the representation of *Swiss* and *Brazilian wines*, which belong to the same cluster according to HCA (Fig. 3). Furthermore, a clear opposition of these wine concepts and the representation of *French* and *Argentinean wines* are observed. Dimension 2 shows an independence of the *Argentinean wines* from all other active individuals. No difference was observed among participants coming from traditional, non-traditional and

consumer only countries. Table 1 shows the categories characterizing each of the three clusters derived from CA-HCA analysis. According to the HCA, the inductive expressions are sorted into three main groups of wines, regardless the origin of the participants. Wines from Switzerland and Brazil are clearly clustered together and separate from Argentinean and French wines, regardless their subcategory ("Old World" or "New World"). Moreover cluster analysis shows that wines from *France* and *Argentina* belong to different clusters. Cluster 1, which included both *Swiss wine* and *Brazilian wine*, is mainly represented by word categories that denote the "unknown aspect" of these wines, including *unfamiliar* (test-value = 7.60; $P < 0.01$), and *lack of notoriety* (test-value = 13.59; $P < 0.01$), followed by words that evoke wine categories such as *white wine* (test-value = 7.24; $P < 0.01$) and to a lesser extent, *sparkling wine* (test-value = 4.94; $P < 0.01$), as well as categories that evoke hedonic evaluation such as *good wine* (test-value = 5.98; $P < 0.01$), and those related to the image of the country, and not to the wine category itself such as a *national symbol* (test-value = 5.38; $P < 0.01$), and *sun/beach* (test-value = 5.10; $P < 0.01$). For the representation of *French wine* (cluster 2), based on the categories mentioned by the participants it can be suggested that this category of wine induces a greater level of knowledge/intimacy of the participants. For them, *French wine* is mainly related to categories such as *terroir/regions* and *appellations* (test-value = 11.34; $P < 0.01$) and *tradition/culture/history* (test-value = 5.15; $P < 0.01$) and have an unequivocal positive representation, given the high frequency of citation for categories such as *the best* (test-value = 6.16; $P < 0.01$) and *high quality* (test-value = 4.72; $P < 0.01$). They are also characterized by a *diversity of wine styles* (test-value = 5.11; $P < 0.01$), *famous wines and wineries* (test-value = 2.99; $P < 0.01$), *red wine* (test-value = 2.17; $P < 0.05$) and *typical varieties* (test-value = 1.84; $P < 0.05$). Finally, *Argentinean wine* was mainly represented by its emblematic variety, *Malbec* (test-value = 14.97; $P < 0.01$), and was also associated with its *neighboring producing countries* (test-value = 4.29; $P < 0.01$). The wines from Argentina were also defined by *powerful and strong wines* (test-value = 6.30; $P < 0.01$), as well as characterized by their *famous wines and wineries* (test-value = 3.30; $P < 0.01$), *red wines* (test-value = 1.82; $P < 0.05$), and for their *high quality* (test-value = 1.50; $P < 0.1$).

4. Discussion

The present empirical study investigated wine traders' mental representation of wines with different levels of involvement in wine

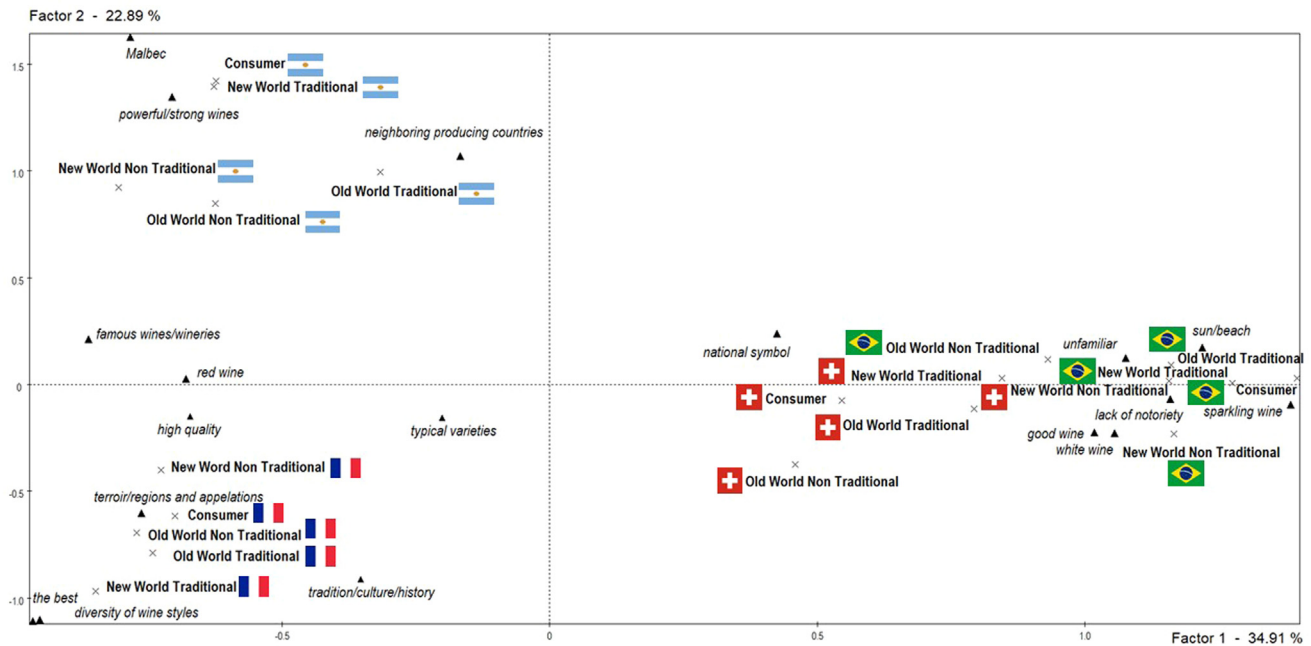


Fig. 2. Representation of wines from Argentina, Brazil, France and Switzerland (represented by the flag of the country) for traders with different origins and the categories derived from the four inductive expressions on the first two dimensions of the Correspondence Analysis performed on the frequency table of participants' associated categories.

world markets: from large and established exporters such as French and Argentinean wines (both top 10 exporters in volume and value), to smaller and developing exporters, as in the case of Swiss and Brazilian wines. For the data analyses, the word associations of participants were divided into categories (new world, old world, consumer only) and sub-categories (traditional and non-traditional), following an adaptation of the taxonomic model proposed by Thorpe (2009). Following the literature of country-of-origin theory, three hypotheses were proposed.

The first one dealt with the importance of COO on a wine trader's representations. Specifically, that COO of wines were more important on guiding participants' representations than the different categories (wine producers/consumer only/new or old wine producer) and sub-categories (traditional/non-traditional) to which wine traders belong to. This hypothesis was partially validated by the results derived from the Cluster Analysis. Three main clusters, or groups of associations, relating to three different categories of wines of different origins, were

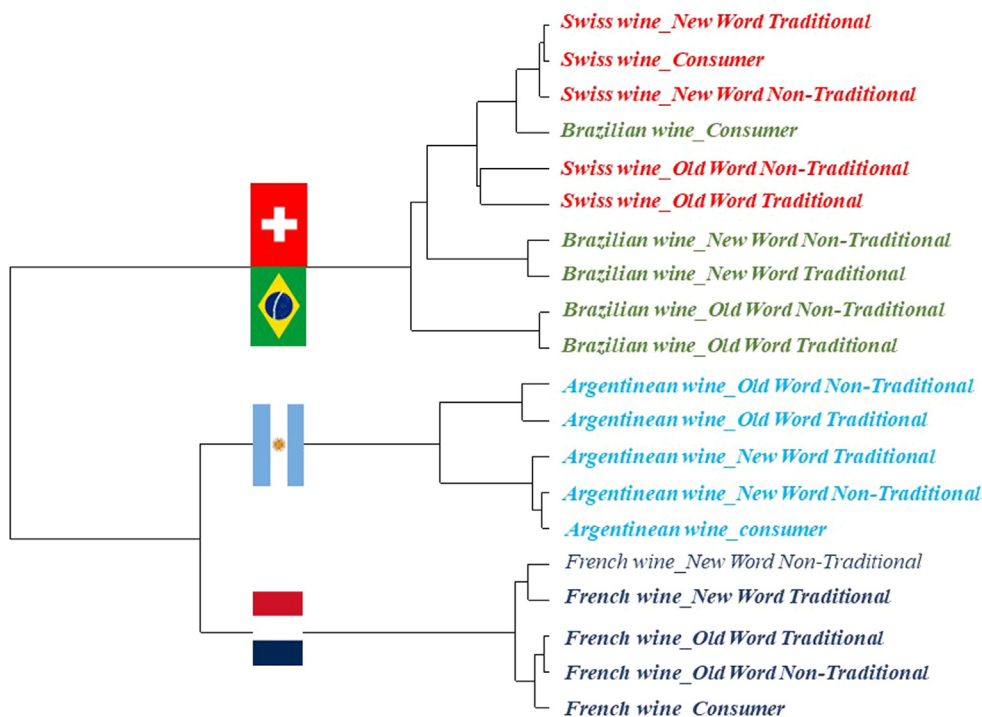


Fig. 3. Dendrogram showing the three main clusters of participants derived from hierarchical cluster analysis calculated on all dimensions of Correspondence analysis performed on the frequency table of categories of words derived from the word association task about wines from Argentina, Brazil, France and Switzerland.

Table 1
Division of significant categories by cluster derived from CA-HCA, test-values and significance (*P < 0.1; **P < 0.05; ***P < 0.01).

Cluster	induced expression	Categories	Test-value	p		
1	<i>Swiss wine</i>	lack of notoriety	13.59	***		
		unfamiliar	7.60	***		
	<i>Brazilian wine</i>	white wine	7.24	***		
		good wine	5.98	***		
		national symbol	5.38	***		
		sun/beach	5.10	***		
		sparkling wine	4.94	***		
2		terroir/regions and appellations	11.34	***		
		the best	6.16	***		
		tradition/culture/history	5.15	***		
	<i>French wine</i>	diversity of wine styles	5.11	***		
		high quality	4.72	***		
		famous wines/wineries	2.99	***		
		red wine	2.17	**		
		typical varieties	1.84	**		
		3	<i>Argentinean wine</i>	Malbec	14.97	***
				powerful/strong wines	6.30	***
	neighboring producing countries			4.29	***	
			famous wines/wineries	3.30	***	
			red wine	1.82	**	
high quality			1.50	*		

identified regardless the country of origin of the participants (producer or consumer only). *French* (Old World) and *Argentinean* (New World) wines, both belonging to traditional countries in terms of volume of exports, according to the model of classification proposed in the present work, belonged to different clusters and thus had different representations. Even if they shared word associations, such as *famous wines/wineries* or *red wine*, they clearly showed differential word categories related to the variety (*Malbec* for *Argentinean* and *typical varieties* for *French wine*) and the type of wines (*powerful/strong* for *Argentinean* and *diversity of wine styles* for *French wine*). This suggests that these wine categories appear as a function of the participants' knowledge, intimacy or familiarity with the product itself. The participants have established and recognizably positive concepts of these wines, which lead to a competitive advantage given their favorable reputation. Differently, *Swiss* and *Brazilian wines* belong to the same cluster, which was mainly characterized by words such as *unfamiliar* and *lack of notoriety*. In this context, the results show that there is an important effect of COO but only when there are stable and recognizable associations between the country and the product as is the case of *French* and *Argentinean wines* (Vrontis & Pappasolomou, 2007).

Secondly, wines that are more familiar in international markets, including *French* and *Argentinean wines*, led to more precise and specific associations (*terroir/regions and appellations*, *tradition/culture/history*, *diversity of wine styles* or *famous wines/wineries* for *French* and *Malbec* or *powerful/strong* for *Argentinean wines*) as well as more positive (*the best* or *high* for *French wines* and *high quality* for both *French* and *Argentinean wines*) representations, than those countries with lower penetration in world wine markets (*Brazilian* and *Swiss wines*) - as it was hypothesized. This could be attributed to the fact that wine traders have meaningful associations with both concepts. On the contrary, the lower familiarity of participants with *Swiss* and *Brazilian wines* led to more general representations such as *white* or *sparkling wine*, or *national symbol* (specific to *Swiss wines*) and *sun/beach* (specific to *Brazilian wines*), confirming our third hypothesis. In these last two cases, the lack of knowledge about these wines conceivably influenced participants to use the country's image as a simple cue to infer wine perception and thus acting as stereotype (Sáenz-Navajas, Ballester, Peyron, & Valentin, 2014).

On the one hand, results show that the representation of wines is mainly driven by wine knowledge and familiarity, thus wines that are

more commonly traded lead to more precise representations. On the other hand, the lack of traders' knowledge of wines from countries such as Brazil and Switzerland produce associations and beliefs related to the image of the country itself (Josiassen, Lukas, Whitwell, & Assaf, 2013; Thøgersen et al., 2019). This fact is presented as an opportunity for non-traditional countries that could promote their marketing actions to focus on wine education, to increase wine awareness by adopting the 4Es (expertise-evaluation-education-experience) model proposed by Festa, Cuomo, Metallo, & Festa (2016). This educational model, which aims at approaching wine culture to consumers, has shown to be able to enhance or even change the perception of the country-of-origin of wines held by millennials (Foroudi, Cuomo, Rossi, & Festa, 2019).

5. Conclusions

One overarching theme in the study of product quality, is that quality is often unobservable, or if it is observable it is unverifiable, by a third party. This is particularly true for the wine sector, where agronomic conditions, weather, and winemakers' skills and investments combine to produce different product qualities. However, any study about wine quality needs to look, not only at supply, but also at the demand, as the perceptions of wine traders and consumers on wine quality affect market transactions.

In this study, we focus on one aspect of the demand side: the traders' representations of wines as a function of the COO. As quality is not directly observable, the COO may provide important information for wine traders and consumers. Knowing the mental representation wine traders have on wines from different countries is valuable information for the marketing and export activities of the wine industry. The image of the country is very important for less traditional players in the export markets, as is the case for Switzerland or Brazil, as they could use the positive aspects of their country's image to market their wines. It also provides useful information for more traditional countries considering the introduction of new products. For instance, in the case of Argentina, the strong association with Malbec and bold red wines creates a challenge for the introduction of other varieties and wine styles into the international markets.

The present work has been able to mostly confirm the hypotheses put forward. However, the study has a potential shortcoming: only countries with positive image were considered. Thus, more studies evaluating the representation of wines from countries with more negative representation are required to access traders' representations and gain insights into their COO.

CRedit authorship contribution statement

Heber Rodrigues: Conceptualization, Funding acquisition, Data curation, Writing - original draft, Writing - review & editing. **Julien Rolaz:** . **Ernesto Franco-Luesma:** Resources. **María-Pilar Sáenz-Navajas:** Writing - original draft. **Jorge Behrens:** Funding acquisition, Supervision. **Dominique Valentin:** Formal analysis, Resources, Writing - review & editing. **Nicolas Depetris-Chauvin:** Conceptualization, Project management, Funding acquisition, Resources, Supervision, Data collection, Writing - Original Draft, Writing - Review & Editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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References

- Amine, A., & Lacoëuilhe, J. (2007). Les pratiques de consommation du vin: rôle des représentations et des situations de consommation. *Actes du XXIII^{ème} Congrès International de l'AFM*, 31.
- Adina, C., Gabriela, C., & Roxana-Denisa, S. (2015). Country-of-origin effects on perceived brand positioning. *Procedia Economics and Finance*, 23, 422–427.
- Banks, G., & Overton, J. (2010). Old world, new world, third world? Reconceptualising the worlds of wine. *Journal of Wine Research*, 21(1), 57–75.
- Balassa, B. (1977). *Export Incentives and Export Performance in Developing Countries: A Comparative Analysis*. The: World Bank.
- Benoît, L., William, A., Lindsey, H., Adrienne, L. F., & Marianne, M. W. (2019). Wine sector: Definitions and nuances from global to country analysis—A comparison between Old World, New World, and emerging wine countries from 2005 to current. *Case Studies in the Wine Industry* (pp. 7–32). New: Woodhead Publishing.
- Bécue-Bertaut, M., Alvarez-Esteban, R., & Pagès, J. (2008). Rating of products through scores and free-text assertions: Comparing and combining both. *Food Quality and Preference*, 19(1), 122–134.
- Brochet, F., & Dubourdieu, D. (2001). Wine descriptive language supports cognitive specificity of chemical senses. *Brain and Language*, 77(2), 187–196.
- Chrysochooidis, G., Krystallis, A., & Perreas, P. (2007). Ethnocentric beliefs and country-of-origin (COO) effect. *European Journal of Marketing*.
- Chuin, T. P., & Mohamad, O. (2012). Young Malaysians' chocolate brand familiarity: The effect of brand's country of origin and consumer consumption level. *Business Strategy Series*, 13(1), 13–20.
- Fehér, J., Lengyel, G., & Lugasi, A. (2007). The cultural history of wine-theoretical background to wine therapy. *Central European Journal of Medicine*, 2(4), 379–391.
- Festa, G., Cuomo, M. T., Metallo, G., & Festa, A. (2016). The (r)evolution of wine marketing mix: From the 4Ps to the 4Es. *Journal of Business Research*, 69(5), 1550–1555.
- Foroudi, P., Cuomo, M. T., Rossi, M., & Festa, G. (2019). Country-of-origin effect and millennials' wine preferences—a comparative experiment. *British Food Journal*.
- Glänzel, W., & Veugelers, R. (2006). Science for wine: A bibliometric assessment of wine and grape research for wine-producing and consuming countries. *American Journal of Enology and Viticulture*, 57(1), 23–32.
- Goldberg, R., Almenberg, J., Dreber, A., Emerson, J., Herschkowitsch, A., & Katz, J. (2008). Do More Expensive Wines Taste Better? Evidence from a Large Sample of Blind Tastings. *Journal of Wine Economics*, 3(1), 1–9.
- Johnson, H., & Robinson, J. (2013). *The World Atlas of Wine*. London: Mitchell Beazle.
- Jones, G. V., White, M. A., Cooper, O. R., & Storchmann, K. (2005). Climate change and global wine quality. *Climatic Change*, 73(3), 319–343.
- Josiassen, A., Lukas, B. A., Whitwell, G. J., & Assaf, A. G. (2013). The halo model of origin images: Conceptualisation and initial empirical test. *Journal of Consumer Behaviour*, 12(4), 253–266.
- Kaynak, E., Kucukemiroglu, O., & Hyder, A. S. (2000). Consumers' country-of-origin (COO) perceptions of imported products in a homogenous less-developed country. *European Journal of Marketing*, 34(9/10), 1221–1241.
- Lampert, S., & Jaffe, E. (1998). A dynamic approach to country-of-origin effect. *European Journal of Marketing*, 32(1–2), 61–78.
- Lebart, L., Morineau, A., & Piron, M. (1995). *Statistique exploratoire multidimensionnelle, Vol. 3*. Paris: Dunod.
- Li, H., Wang, H., Li, H., Goodman, S., van der Lee, P., Xu, Z., & Yang, P. (2018). The worlds of wine: Old, new and ancient. *Wine Economics and Policy*, 7(2), 178–182.
- Moliner, P., & Lo Monaco, G. (2017). *Méthodes d'association verbale pour les sciences humaines et sociales*. Grenoble: Presses Universitaires de Grenoble.
- Nagashima, A. (1970). A comparison of Japanese and US attitudes toward foreign products. *J Mark*, 34(January), 68–74.
- OIV (2019). 2019 Statistical Report on World Vitiviniculture. <http://oiv.int/public/medias/6782/oiv-2019-statistical-report-on-world-vitiviniculture.pdf>.
- Panda, R. K., & Misra, S. (2014). Impact of country-of-origin image on brand equity: A study on durable products in India. *Procedia-Social and Behavioral Sciences*, 150, 494–499.
- Papadopoulos, N., & Heslop, L. A. (2003). Country Equity and Product-Country Images: State-of-the-art in Research and Implications. In S. C. Jain (Ed.). *Handbook of Research in International Marketing* (pp. 402–433). Cheltenham: UK.
- Parameswaran, R., & Yaprak, A. (1987). A cross-national comparison of consumer research measures. *Journal of International Business Studies*, 18(1), 35–49.
- Piron, F. (2000). Consumers' perception of the country-of-origin effect on purchasing intentions of (in) conspicuous products. *Journal of Consumer Marketing*, 17(4), 308–321.
- PROWEIN (2018). ProWein Business report. Available in: https://www.prowein.com/en/For_Press/Press_material/Press_Releases/ProWein_Business_Report_assesses_the_International_Wine_Markets.
- Rodrigues, H., & Parr, W. V. (2019). Contribution of cross-cultural studies to understanding wine appreciation: A review. *Food Research International*, 115, 251–258.
- Rodrigues, H., Ballester, J., Saenz-Navajas, M. P., & Valentin, D. (2015). Structural approach of social representation: Application to the concept of wine minerality in experts and consumers. *Food Quality and Preference*, 46, 166–172.
- Rodrigues, H., & Otterbring, T. (2019). Métodos de psicología en los estudios con consumidores: Psicología social & cognitiva. *Introducción al Análisis Sensorial y Estudios con Consumidores: Nuevas Perspectivas; XOC ESTUDIO: Ciudad de Mexico, Mexico* (pp. 435465). ISBN 978-607-98549-0-4.
- Sáenz-Navajas, M. P., Ballester, J., Peyron, D., & Valentin, D. (2014). Extrinsic attributes responsible for red wine quality perception: A cross-cultural study between France and Spain. *Food Quality and Preference*, 35, 70–85.
- Srikatanyoo, N., & Gnoth, J. (2002). Country image and international tertiary education. *Journal of Brand Management*, 10(2), 139–146.
- Symoneaux, R., Galmarini, M. V., & Mehinagic, E. (2012). Comment analysis of consumer's likes and dislikes as an alternative tool to preference mapping. A case study on apples. *Food Quality and Preference*, 24(1), 59–66.
- Thøgersen, J., Pedersen, S., & Aschemann-Witzel, J. (2019). The impact of organic certification and country of origin on consumer food choice in developed and emerging economies. *Food Quality and Preference*, 72, 10–30.
- Thorpe, M. (2009). The globalisation of the wine industry: New world, old world and China. *China Agricultural Economic Review*.
- United Nations (2009). *International Trade Statistics Yearbook*.
- Verlegh, P. W. J., & Steenkamp, J.-B.-E.-M. (1999). A review and meta-analysis of country-of-origin research. *Journal of Economic Psychology*, 20(5), 521–546.
- Vrontis, D., & Pappasolomou, I. (2007). Brand and product building: The case of the Cyprus wine industry. *Journal of Product & Brand Management*, 16(3), 159–167.
- World Bank (1997). *World Development Indicators*. Washington DC.