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USING THE ORGANIC LABEL IN SPANISH WINE MARKETING



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PREFACE

This thesis has been written as an entire part of my study program International Agribusiness at Aeres University of Applied Sciences, Dronten. This research work represents the final step and proof of proficiency of the applied study program and classes attended during the year.

Organic wines and marketing topics were chosen in adequacy with my scholar and professional career. These disciplines are an entire part of my future work in wine trade. Furthermore, my internship took place in Terra Remota, an individual vineyard and cellar in the Denomination of Origin Emporda (Catalunya, Spain). This place was chosen for diversity of its activities which gave me the opportunity to be polyvalent, more agile and improve my competences in wine trade, export and relation to the public. This topic was chosen in agreement with the company to give them answer of the importance of organic label in their marketing sector and explore this unknown topic in Spain.

Corrections in Chapter 1 and Chapter 2 were done after feedback of second assessor, and survey part was had for the first sub-question in Chapter 2. In addition, English language corrections were made following the first feedback.

As usual, all the remaining mistakes are entirely my own as well as all errors and oversights.

I would like to thank Mr. Taco MEDEMA for coaching me the last months. This helped me to write and research this topic. In addition, I would like to thank Mrs. Carole Pietrzak to help me a lot with my English. Also, I would to thank my managers and colleagues during the 5 months spent with the company, Marc & Emma the owners for their kindness and their consideration, Joan Frei, my company mentor who gave me keys to understand the wine trade world, Edith and Eugenio the oenologists for their advice about wine making process, Meri who gave me an insight of work in the cellar and with whom I spent a lot of time, Pep & Pau for the nice exchanges, Manuel, Susana, Dolores and without forgetting my partners trainee, Arthur, Marie and Pierre-Thomas.

Yours sincerely, Manon TARDY

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SUMMARY

Wine consumption is decreasing for many decades, but organic products demand is increasing. To counter the image of Spanish wines which is “poor quality and cheap wines” because of their big quantity production and their low prices, Spanish wine producers change their farming method. Spain ranks first organic vineyard in Europe. Wine producer now practice organic farming regulated by European Union. Nevertheless, it is difficult to use this organic label as a marketing argument. Wine products from organic farming are assessed by a logo in shops, but it is not enough to promote organic wine. Organic demand continues, competition between producers is increasing too with more choices of products. This competition starts with marketing promotion and communication, but sometimes producers did not know how to promote this organic label. In addition, lack of communication creates a lack of understanding from customers about organic label and its meaning.

Thus, the thesis research aims to answer a main question: How can Spanish wine producers improve the use of organic farming label in their marketing? Wherefore, four sub-questions divided the research to detail and to structure work research: who the organic wine buyers in Spain are, why they are buying in Spain, how Spanish organic wines are perceived and in which sense is the organic label interesting for the buyers.

To answer these sub-questions, desk research was used to confront literature review and data from Terra Remota, place where is also conducted the survey answered by clients and interviews answered by professionals. Results showed consumer profile is presenting most women consumers, aged between 36 and 45 years old from Spain or France and part of private worker social category, present in winery following advice from a friend. They firstly look for quality wine and they perceived Spanish organic wines as “high quality wine for special occasion”. For them, the most important criterium for an organic wine is the taste before ethics and price. Professional opinion follows this trend.

In conclusion, these elements and this consumer profile should be targeted in order to promote organic label focusing on wine taste and proposal for which occasion drink this Spanish organic wine, word of mouth manner to talk about, be aware of women sensibility. In addition, the survey showed an obvious lack of communication from interviews and desk research that should be covered by organizing events to explain organic farming in salons or in schools, asking marketing professionals to advice for personalized design highlighting organic logo, advertise in a simple way benefits or organic farming with concrete examples and implement more relationships between clients and Spanish organic wine producers.

To further this research, the same survey should be conducted in all Spain and with professional survey tools.

1. Introduction

In Europe, public opinion and consumption habits are currently changing: the recent study of Food 360 shows that 66 % of consumers care for high-quality products. This opinion is a generality, some variability can be noticed, depending on each country and it is mostly GDP-linked (SIALParis, 2019). Consequently, food consumption is evolving: “A growing proportion of consumers are also opting for brands that guarantee fair pay for farmers, and for food companies that are committed to combating waste” (SIALParis, 2019). The change is both about the quantity and the quality: people drink and eat less, but are looking for better quality: “Recently, the demand for local, sustainable and organic food production has increased” (Kearney, 2010). Indeed, a study in the UK shows that organic food sales increased by 5,3% in one year (Soil Association, 2019).

Organic wine consumption tends to follow the same trend. A study is conducted about organic wine consumption across Europe and it was concluded that “a general increasing growth trend can be observed [...] connected to the increasing demand of consumers for organic food and the development of organic farming in most of the European countries” (Jonis M., 2008). Indeed, wine consumption decreased during the last forty years. Between 1961 and 2003, the consumption decreased by 61,5% (Planetoscope, 2019). In fact, wine becomes a luxury product, because of the “premiumisation”. It means that increasing demand from Asia and the United States brought a rise in prices for the wines from the “Old World countries” like France, Spain and Italy for example (Matcha Stories, 2017). The same trend regarding export prices of the Spanish wines happened into Europe too:

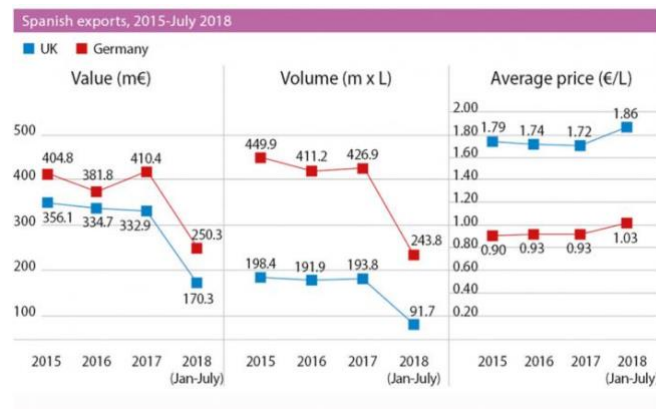


Figure 1 : Spanish exports, 2015-July 2018; Source: FEV, Spanish wine federation

This graph presents Spanish exports from 2015 to July 2018, specifically for UK and Germany markets. Two trends are observed: value and volume decreased uniformly while average price increased. It corresponds with the “premiumisation” effect: wine price is higher than before because there is less quantity. But if prices are higher, buyers are looking for better quality. This movement follows the strategy explained by Torres: “increase the value of Spanish bulk wine [...] with higher quality and value, just as it is done in bottled wine” (Drinks today, 2018). Here, high quality can refer to organic wine.

However, even if things are evolving about quality of Spanish products, Spanish wines continue to be seen like poor quality and cheap wines due to their high level production (FranceAgrimer, 2016). Which is not totally false, since production comes in vast quantities (Medina-Albaladejo, 2009), but quantity does not necessarily mean bad or low quality. To escape from this preconceived idea and by conviction too, some wine producers now turn to organic agriculture. Organic viticulture in Spain represents 53,000 hectares, or 4,8% of the 1.11 million of the total Spanish viticulture lands (Ecole Muscadelle). Spain ranks first for organic wine production in Europe (Citerne, 2019).

As a consequence of this global movement of mind changes about consumption of quality product rather than quantity, the demand for best quality products (Sahota, 2008), including wine and the rise in prices of the European wines leads the producers to change their way of production. They try to be close to the 3P’s model. It means “People, Planet and Profit” (Anom, 2018). Thus, the product meets the customers’ requirements about quality of life and also of the way workers are considered, respecting social policy and good labour conditions, while respecting the planet but however still keep a competitive market to make profit. Some producers find in organic farming a way to be close of this 3 P’s model. Organic farming is also applied to viticulture to have an impact on “soil, grapevine development and grape quality” (Georg Meissner, 2019).

According to the European Commission, organic farming is considered as a complete method, all along the food production chain, to produce food: *“Organic farming is an agricultural method that aims to produce food using natural substances and processes”*. The five aims of this farming are using energy and natural resources in a responsible way, maintaining biodiversity and water quality, preserving the regional ecological balances, and enhancing the soil fertility. The global aim is that “organic farming tends to have a limited environmental impact”. In addition, animal welfare is also an important point of organic farming.

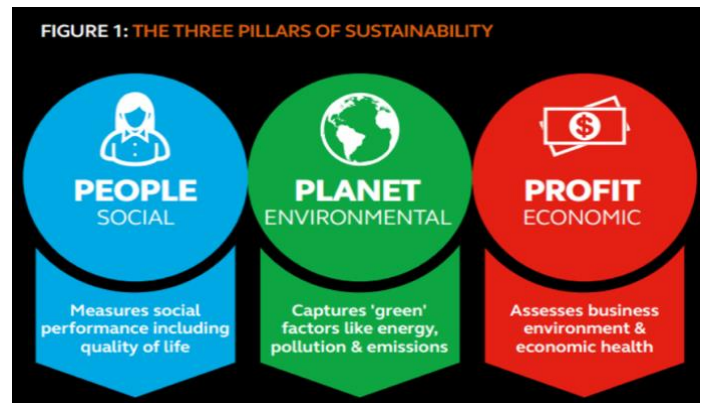


Illustration 1 : 3 pillars of sustainability (getrealscience.org, 2018)



Illustration 2 : Organic Agriculture Logo by the European Union, 2019

To become an organic farmer, a certification by a control body is needed, after time of conversion if necessary. The certification ensures that principles as mentioned before are respected, because the European Commission gives a financial support to organic farmers (European Commission, 2019). Indeed, to control organic farming (method to produce food using natural substances and processes (European Commission, 2019)) and the utilization of organic farming label as shows *Illustration 2*, by the producers, there is a law which structures the whole production of the Union, it is regulated by the European Union. Indeed, organic label from European Union is the only one certified by an European public organization. Other labels from private organization can be “buy”, that do not guarantee the reliability of supposed organic products for clients, and they are “high quality labels” but legally, they cannot be considered “organic labels”. Organic agriculture does not only aim at environmental progress, it is also “to satisfy consumer demand for trustworthy organic

products whilst providing a fair marketplace for producers, distributors and marketers” (European Union, 2019).

Nowadays, organic agriculture represents 7% of the European production (Toute l'Europe, 2019). Even then, organic product demand has been growing in the last thirty years (Michelsen, Hamm, & Wynen, 1999) and continues to grow as big as “retailers plan to meet growing consumer demand for organic and local foods”, as it was studied in 2015 (Carolyn Dimitri, 2015). It means that the quantity of products into organic markets will grow, thus a lot of producers want to be part of this market, and so the number of competitors into this market will grow too. Therefore, the bigger the market will be, the more important it will be to control image of organic farming. Also, to keep control on the respect of the law of organic product will be a security to ensure the good quality of products. The main goal is to keep the status of organic farming as a trustworthy production. In a way to guarantee the authenticity of organic farming product, a logo is affixed on each product. It is attributed by a certify quality control agency, which ensures strict conditions of production, transportation and storage. The illustrated logo on *illustration number 2* can be easily found on the products (European Union, 2019).

To put the spotlight on the logo to make it more accessible in the first look and sharpen all the meaning behind “organic agriculture” is more difficult than it seems. The work is based on marketing skills. Indeed, after a study of the perception of Burgundy wine consumers about “environmentally friendly logos in wine production” in France, two things are observed: “most logos did not successfully convey an environmental sustainability message” and “there is a need for improving communication on environmentally sustainable wines” (Emilie Ginon, 2014). These expert’s highlights show a real need of information and communication with consumers (Emilie Ginon, 2014). However, the marketing does not focus enough on the organic label, whereas consumers are looking for organic products (Sellers, 2016).

To improve the marketing promotion and communication about the perception of the organic label, a strong strategy is needed. Marketing is a complex definition due to the quantity of elements that can be included in it. One of the definitions gives a clear view about what is including in the marketing concept: “The management process through which goods and services move from concept to the customer. It includes the coordination of four elements

called the 4 P's of marketing" (BusinessDictionary, 2019). This model is applied in a study about the "environmental protection and sustainable development" named "The demand for organic wines and organic wine marketing" that shows how promotion and marketing are important in wine market (M. O. AZABAGAOGLUa*, 2007). With the aim to enable better understanding of which lack of information has to be improved, precedent information, that is already known, is crossed with other marketing tools and strategies. The result is to apply these strategies and data on the specific topic of organic wine label.

Organic wine market is a very competitive market, due to the small amount of production trying to meet heavy market demand. Indeed, the number of organic wine producers is increasing, so organic wine market is becoming more and more competitive (Pailloux, 2019). As traditional products, organic products must be competitive into the traditional market because traditional and organic wines are compared at the same scale, whereas organic product prices are a little bit higher than the traditional wine market. A recent study shows that consumers are willing to "pay a price premium for a sustainable wine" (Sellers, 2016). Then, the price segment does not seem to be a constraint. Thus, competition is not about price. Competition is about visibility and reputation.

In practice, being competitive is a complex skill: it needs a strategy, to be different and, above all, to be known by a lot of possible consumers (M. O. AZABAGAOGLUa*, 2007). Being competitive is one of the aims of the marketing strategy of the company. For wine producing companies, wine tourism is a big part of the marketing of the organic wines, both inside producing country and export countries (Cagnina M.R., 2018). Tourism and its proximity to the client helps to share the identity of the wine, and it is a way to put forward the organic label and the reason behind organic farming : "wine tourism can also provide new opportunities for the wine distribution as well as for building positive brand image and identity for the many small wineries" (Carlsen, 2006).

Marketing work is separated in two phases : before acting, it is necessary to understand the consumer and his needs and the market and customers' point of view (Jonis M., 2008). After acting, knowing how to promote wine in a small winery, using fundamental and tools is needed : applying marketing models, using social media, etc. (Copperpeak, 2008).

However, wine producers are not all aware of which action they can apply to improve their marketing and be competitive. It means which method, for example direct marketing or not, but also work more on communication, distribution methods and places, needs of the consumers and information about organic wine. It also implies new possibilities, like working with partners: wine reviews, influencers, wine sellers (M. O. AZABAGAOGLUa*, 2007). A study proves that a gap is existing due to the lack of information and data (Adrian García Fernández, 2018). This lack of information of consumers about the meaning of the logo (Rui Dong, 2018) can be explained by a non-sufficient and clear label utilization to promote the use of the organic farmer label in Spanish wine marketing. In fact, brand logo utilization, specifically placement, is already studied and analysed (Rui Dong, 2018). What is found is that the placement of any brand logo has an influence on the consumer (Rui Dong, 2018). Also, organic labelling is precisely important for consumers (Drexler, 2017). The missing point is how to directly give easy and smart keys to improve the use by the producers of this specific label and its meaning, which is a European Union public property. Some books are already addressed to wine producers to “gain a marketing advantage”, but the topic is too general, more based on “green-mindedness” than specifically on the organic agriculture label as the actual conducted research (Stolle, 2019).

Thus, the research leads at answering a main question:

‘How can Spanish wine producers improve the use of organic farming label in their marketing?’

To find answers and solutions room for progress in this sector can allow to the organic Spanish wine producers to be more competitive and try to erase the old worldview on Spanish wines which are “cheap quality wines because of big production” as mentioned before. One of the solutions to erase it is conversion into organic farming production, meaning quality with the reference of public point of view.

To help and complete this main question, sub questions included are:

- Who are the organic wine buyers in Spain?
- Why are they buying in Spain?
- How are Spanish organic wines perceived?
- In which sense is the organic label interesting for the buyers?

This research report aims to answer the main question and to provide advice and solutions to Spanish wine producers and their marketing workforce to improve the marketing line using the organic label as a key point.

Finally, the main objective is about finding who are the organic wine buyers in Spain and what attracts them in the concept of organic label directly in the producing place. This main objective aims to help organic wine producers to promote their products with the organic label directly in their wineries “in Spain”, as mentioned before, a country where wines are seen as big quantity production and poor quality that do not seems needed a marketing with serious consideration. Furthermore, export is the second step of wine marketing. Solutions found to help wine producers in their own country could be applied later in marketing work and with specific export strategies. The more organic label will be used, the more it will become common for customers, and the more they will be aware of what the organic label means (Conner, 2004). Finally, customers will be looking for more organic products and so small organic wine producers will become more competitive.

2. Materials and methods

Conducive to answer to the main question, the different sub questions are used, following a specific methodology.

Primary and secondary researches are used in this research. The desk research constituted the secondary research, using available literature with *Google Scholar's* search engine and French classes in wine trade to create a base for the main question with scientific content. The targeted literature stands on key words "organic – wine – Spain – producers – marketing – market", with an importance of the most "up-to-date" data and information. But this information must be completed by professional point of view and more data.

Interviewing professionals working in organic viticulture and wine marketing constituted qualitative method which is part of the primary research. These interviews are useful to provide technical information about the current marketing of organic wines in Spain. The targeted professionals are further detailed in the sub-question paragraphs. In addition, a sample of 100 organic wine cellar tourists and clients are registered at Terra Remota, an organic wine producer and cellar (Appendix 2). This register provides general information about who is coming in Spain, even if the information is quite biased, because of the proximity with the French border, the sample of tourists is not entirely representative of the all wine buyers Spain : only a sample of non-professional buyers, or if they are, there are not referred as distributors in wine business.

Indeed, Terra Remota is located between the sea and the mountain, in Catalunya, between *Sant Climent Sescebes* and *Capmany* (Appendix 1).



Illustration 3 : Terra Remota's name and logo

These two villages are closed to medium-size famous towns like *Figueras* and *La Jonquera*. Owners are French and lived in Perpignan, at 45 min by car, so it attracts a lot of French visitors. Terra Remota is also part of the Denomination of Origin Emporda. Offering the survey by paper in this place gives an accessible approach to enough responses to the questionnaire.

In 2018, the number of tourists was around 82.6 million throughout Spain (le Figaro, 2019). This huge community cannot be interviewed entirely for practical reasons, and due to

Determine Sample Size

Confidence Level: ☒ 95% ☐ 99%

Confidence Interval:

Population:

Sample size needed:

Illustration 4 : Sample size calculator applied to the tourist population in Spain, 2018 (Survey System, 2019)

time limitations from 7th of October to 18th of November, the survey cannot be conducted with the recommended 384 people. At least, to validate the questionnaire, 100 persons must answer (Appendix 3). The small quantity of answers can give an idea of the different opinions about the marketing and the organic wine in Spain.

Afterwards, the results as to be considered with parsimony and crossed with data and information from scientific and public associations (Appendix 4). To detail more, sub-questions related to the main question are asked. The aim is to target and found small keys to find a strategy and a final issue.

1) Who are the organic wine buyers in Spain?

This first sub-question is used to target organic wine buyers in Spain. It is necessary to know who they are: the age, the social category, the gender, the nationality.

Firstly, desk research is conducted to have a global idea of who are organic wine buyers in Spain, using some research articles, like the article “Wine consumers’ preferences in Spain: an analysis using the best-worst scaling approach” (Tiziana de-Magistris*, 2014).

Secondly, the data are crossed with the Terra Remota visitors list. This list is updated regularly throughout the year. Precedent relevant elements are noticed. Targeting the buyers is a helpful key to decide which marketing line will be followed. At this moment, the questionnaire allows to know identity of buyers as *figure 2* to be the third source of data thanks to this field survey.

Gender – Genre – Género

☐ Male / Hombre / masculino ☐ Female/mujer/feminin

Age – Age - Edad

.....

Nationality – Nationalité – Nacionalidad

.....

Living country – Pays actuel – Pais de residencia

.....

Social category – Catégorie Sociale – Categoría social

- ☐ State worker – Fonctionnaire d’état – Funcionario del estado
- ☐ Private worker – Travailleur pour le privé – Trabajador privado
- ☐ Student - Etudiant - Estudiante
- ☐ Retired - Retraité - Jubilado
- ☐ Without work - Sans emploi - Desempleado
- ☐ Other - Autre – Otros

.....

Figure 2 : Questionnaire for sub-question 1

The results are analyzed with tabs and graphs. It allows to compare the different buyers and to focus marketing on the most popular taste of these buyers. Indeed, thanks to this information, not only marketing message and

form can be thoughtful but also places and tools: social media or events, papers or publications, film or articles, the languages, organic shops, etc.

2) Why are they buying in Spain?

After figuring out the buyers, the following question is “why are they buying in Spain”. This sub-question is quite large, but helpful to determine the planks on which producers and marketing workers should focus on. Also, to see why buyers are here and what buyers associate as characteristics of Spanish wine, the question finish by “in Spain”. Is it for the quality? For the denomination of origin? Just a hazard because of a special moment (holidays, travel for work, ...)?

Why are you in Terra Remota? Pourquoi êtes-vous à Terra Remota ? ¿Porqué estas en Terra Remota ?

- Famous “bodega” – Bodega célèbre – Bodega famosa
- Proximity with France – Proximité avec la France – Proximidad con Francia
- Travel for work – Voyage pour le travail – Viaje por trabajo
- Advice from a friend – Conseil d’un ami – Recomendacion de un amigo
- Loyal Customer – Fidèle client – Cliente habitual
- Total hazard – Hasard Total – Por casualidad
- Other, please specify – Autre, spécifier s’il vous plait – Otros, especificar por favor:

What are you looking for? Qu’est-ce que vous recherchez ? ¿Que estas buscando?

Put 1 the most favorite to 5 the least favorite – Classer de 1 votre préféré à 5 le moins important – Ordena por orden de preferencia de 1 el mas prefiere a 5 el menos prefiere:

	Quality wine – vin de qualité – vino de calidad
	Grapes variety - Cépages – variedad de uvas
	Denomination of origin (Emporda) – Dénomination d’Origine (= AOP) – Denominacion de origen DO
	Organic wine – vin biologique – vino ecologico
	A new experience – une nouvelle experience – una nueva experiencia

Figure 3 : Questionnaire for sub-question 2

To determine the reason why they buy, the same study as precedent is used (Tiziana de-Magistris*, 2014) and a survey is also completed without knowing why people are coming, and at every visit, Terra Remota oenotourism workers asked for the reason for their coming.

Results are worked with graphs and analyzed in the same way to reduce the focused population a little bit more than the first sub-question.

3) How are Spanish organic wines perceived?

As seen before, the reputation of Spanish wines is based on stereotype as Spanish wines have been associated with big production but medium quality for many years. As mentioned earlier, it is not totally false, but mentality and consumption are changing, for example like in USA (Dr. Liz Thach, 2019). Thus, another survey is done to have the actual general consumers and tourists’ point of view on the Spanish wines. To know how these wines are seen by buyers in Spain helps to identify which point must improve marketing sector to attract the public but

also when and in which context: are they seen as aperitif wines? high quality wines only for special occasions? Cheap wines?

Figure 4 : Questionnaire for
sub-question 3

How do you see Spanish organic wines? Comment voyez-vous les vins biologiques espagnols? ¿Cómo ves los vinos orgánicos españoles?		
	Yes	No
Cheap wines? Vins peu chers ? Vinos economicos		
Good quality/price balance? Bon rapport qualité/prix? Buena relacion calidad/precio?		
Aperitif wines? Vins d'apéritif? ¿Vinos para el aperitivo?		
High quality wines for special occasions? Vins haut de gamme pour des occasions spéciales ? ¿Vinos de alta calidad para ocasiones especiales?		

Results are analyzed with a graph. The main idea conducted to categorize and to increase the missing point or blurred point on how Spanish wines are perceived by the majority. The answer of professionals such as oenologist, export managers, scientific vineyard student and organic wine producer is also important in this case, because their marketing targets are closed to many points of view of wine sellers or wine makers or wine buyers.

4) In which sense is the organic label interesting for the buyers?

Thus, it is necessary to understand why organic label interests the buyers. To avoid influencing the decision, four trends are analyzed for the public questionnaire: taste, price, ethics, feeling of being part of a social group of organic consumers.

Figure 5 : Questionnaire for
sub-question 4

What is most important to you when you buy/drink an organic wine? Qu'est-ce qui est le plus important quand vous achetez/buvez du vin biologique ? ¿Que es lo más importante para usted a la hora de comprar un vino? 1 to 4 from the most important to the least important. De 1 à 4 du plus important au moins important Ordena del 1 al 4 del más Importante al menos importante	
taste – gout - sabor	
price – prix - precio	
ethics – éthique - etica	
Belonging to a group of consumers of organic food – appartenance à un groupe de consommateurs de nourriture biologique - Perteneciente a un grupo de consumidores de alimentos organicos	

To find out in what way organic label is important to the buyers helps to focus on which trend the label must be directed to. For professionals, the question is firstly asked without any precision with trends. To know the first impression, no matter if it is how or why buyers are interested in organic wines, gives an idea of what people think first and maybe reveal the missing point of organic marketing. This sub-question is asked with the questionnaire, using the scale form, from 1 to 4 according to the importance of the criteria for the people surveyed. Answers are compared to establish a ranking and range which one is the most important criterium about this label and his meaning.

3. Results

This chapter presents the results for each sub-question obtained during research phase. It is following Materials and Methods chapter methodology.

Results from the submitted survey are presented: a total of 105 client answers were gathered from 27th of November 2019 and 15th of December 2019. 100 answers are kept because 5 clients did not buy organic wine. In sub-question 1, survey results are crossed with Terra Remota's data.

Desk research results are also presented for first and second sub-question, according to Materials and Methods chapter. Then, professional interviews are transcribed for the last sub-question.

3.1 Who are the organic wine buyers in Spain?

To know who the organic wine buyers in Spain are, three data sources were used for this first sub-question.

Desk research was first used, as mentioned in Materials and method chapter. Data is retrieved from the article "Wine consumers' preferences in Spain: an analysis using the best-worst scaling approach" (Tiziana de-Magistris*, 2014) which is available on Appendix 5. This article conducted a survey too, in Zaragoza in Spain, with a sample size of 200 people. Gender percentage and age information are extracted from this article as shown below in figures 6 and 7.

532 <i>T. de-Magistris et al. / Span J Agric Res (2014) 12(3): 529-541</i>		
Table 1. Sample characteristics		
Name (Type)	Variable definition	Value
FEMALE (dummy)	Gender	
	Male	45%
	Female	55%

Figure 6 : Gender percentage of 200 respondents of conducted research "Wine consumers' preferences in Spain: an analysis using the best-worst scaling approach" (Tiziana de-Magistris, 2014)

In figure 6, percentage of gender is presented for a sample of 200 people responding to the survey from the article Wine consumers' preferences in Spain: an analysis using the

best-worst scaling approach” (Tiziana de-Magistris*, 2014) in Zaragoza. From this figure it can be seen that 45 % are identified as gender “male” and 55% as gender “female”.

AGE (continuous)	Age of respondent (average)	49
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Figure 7 : Average age of 200 respondents of conducted research “Wine consumers’ preferences in Spain: an analysis using the best-worst scaling approach” (Tiziana de-Magistris, 2014)

In figure 7, respondent average age, for a sample of 200 people responding to the same survey, which is mentioned before in figure 6, is estimated at 49 years old.

Secondly, Terra Remota data is used. Indeed, the conducted survey is only a sample of all winery visitors, it is interesting to compare with 10 months of data collection from January 2019 to October 2019. Sample size represents 1760 answering people. Chosen countries are defined by DO Emporda organization to answer their own statistics (DO significate “denomination of origin” or “designation of origin” which are same in wine world. These geographical indications are represented by offices to defend traditional specialties from European Union).

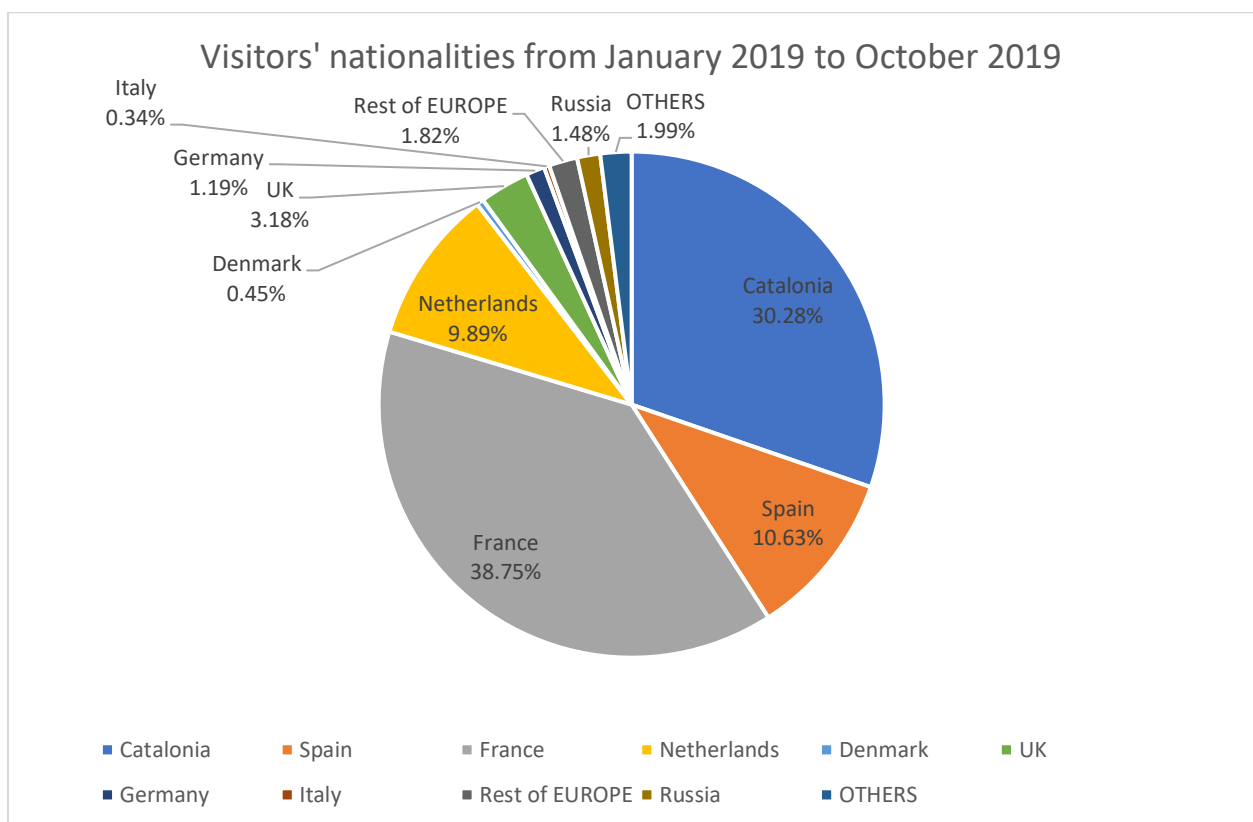


Figure 8 : Terra Remota visitors' nationalities from January 2019 to October 2019

Figure 8 presents 10 months of collected data from January 2019 to October 2019: nationality of Terra Remota visitors. Regarding answers, French visitors are the most numerous: 38,75% (682 persons). Catalan visitors rank second: 30,28% (533 persons). To analyse results, answers are not changed: indeed, independentist people did not feel “Spanish” first. To provide answers and advice at the end of this thesis, it is important to notice and take in account this difference. The third nationality is Spanish: 10,63% (187 persons), followed by countries like the Netherlands: 9,89% (174 persons), the UK: 3,18% (56 persons), other world countries: 1,99% (35 persons), Rest of European countries: 1,82% (32 persons), Russia: 1,48% (26 persons), Denmark: 0,45% (8 persons) and Italy: 0,34% (6 persons).

Finally, after desk research from an article and from Terra Remota data, a field survey was set and presented to 100 clients and tourists coming in Terra Remota from 27th to November 2019 and 15th to December 2019 in order to have a general idea about organic wine client’s profiles. The survey for tourists is provided in Appendix 3: questions 1 to 5 are related to the first sub question. As there are 100 answers, the percentage is the same as the number of answering client.

Answers for “gender” category are:

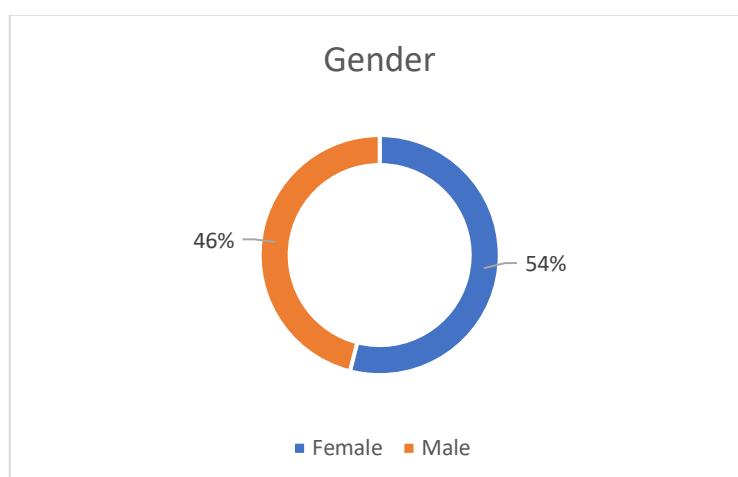


Figure 9 : Answers of the questionnaire for category "gender"

In figure 9, 54% of clients were female and 46% were male. The main gender is female with 8% more than male gender.

Second questionnaire category to fill out was the age. People answered with their real age. For statistics and better readability categories were formed. Answers to the category “age” are classified in 6 categories in the following graph:

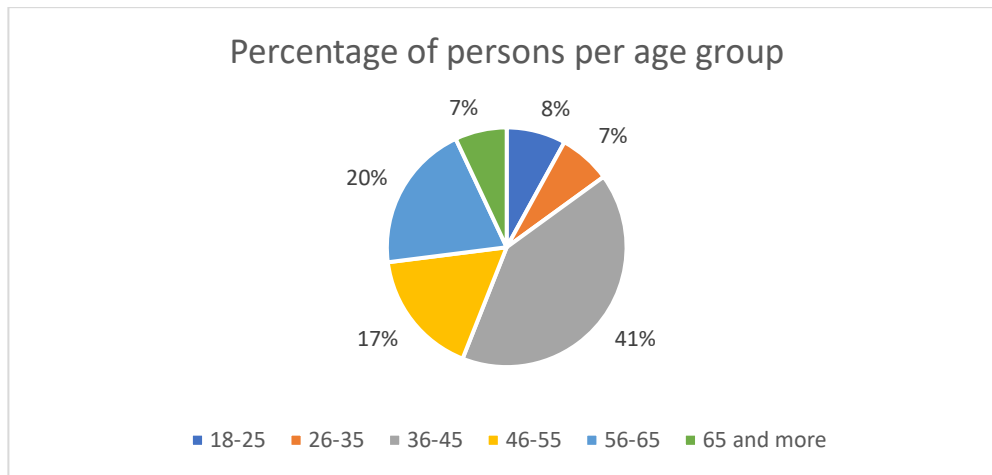


Figure 10 : Answers of the questionnaire for category "age"

Figure 10 shows results for belonging to an age category. Three main age categories are, in order from the bigger to the smaller one: 36-45 years old (41%), 56-65 years old (20%) and 46-55 years old (17%). Three last categories are similar: 8% represents 18-25 years old category and categories of 26-35 years old and 65 years old and more are equal of 7% each one.

Answers to the “nationality” category:

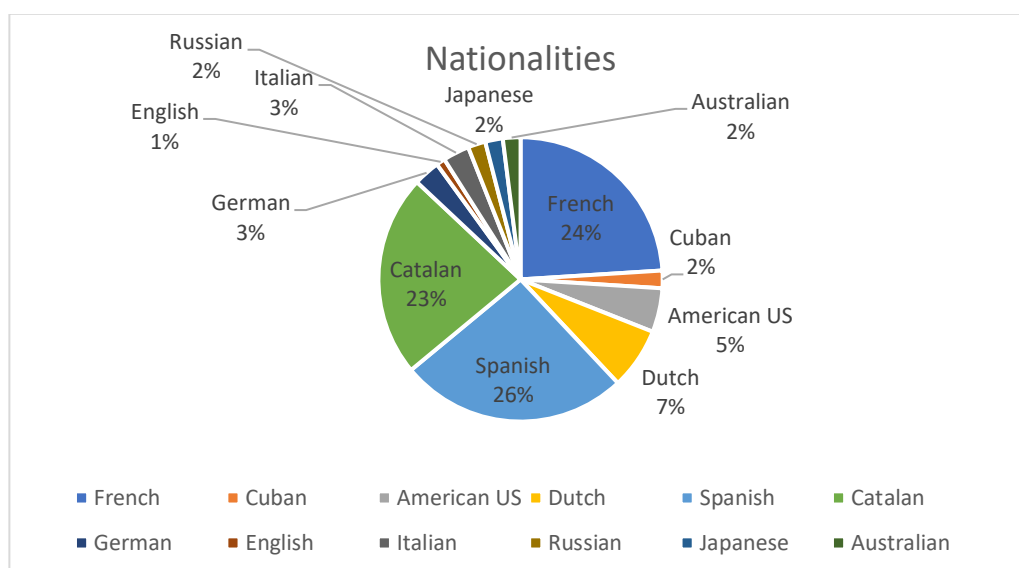


Figure 11 : Answers of the questionnaire for category "nationality"

As shown in figure 11, a lot of different nationality clients joined Terra Remota. First nationality is French (24%), second is Spanish (26%) and third is Catalan (23%). After these three countries, results directly fell under 10%. Then, there is no clear majority between those following nationalities: Dutch (7%) American US (5%), German and Italian (3%), Russian, Japanese, Australian and Cuban (2%) and English (1%).

Answers to the “living country” category:

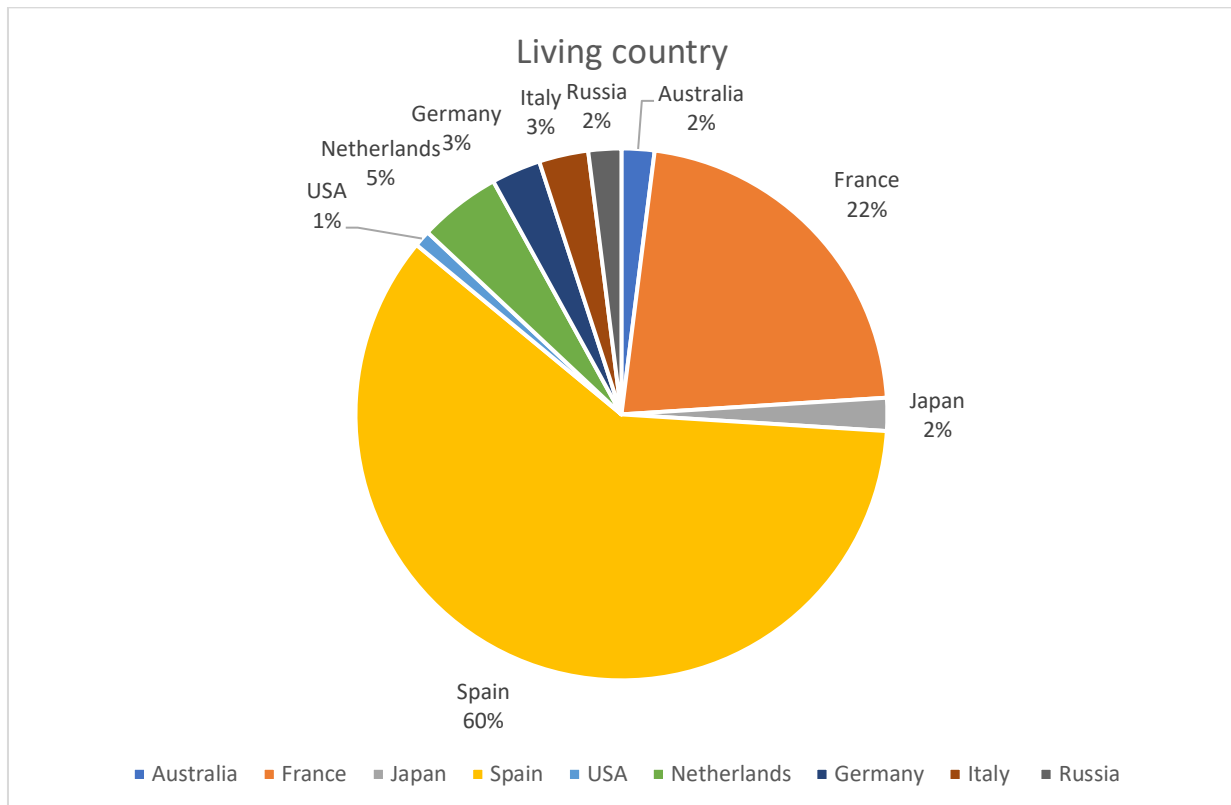


Figure 12 : Answers of the questionnaire for category “living country”

Living country can be different from nationality. In figure 12, Catalonia and Spain answers are regrouped in Spain category, because legally Catalonia is not recognized as a country. Two main answers are: Spain (60%), France (22%). After, there is no clear majority: Netherlands (5%), Germany and Italy (3%), Russia, Australia, Japan (2%) and USA (1%).

Possible answers for the question “social category” have been simplified from the start. The goal is to understand globally to which social category visitors of Terra Remota belong, without a big need for precision. The proposals were: “State worker”, “Private worker”, “Student”, “Retired”, “Without work’ and “other”.

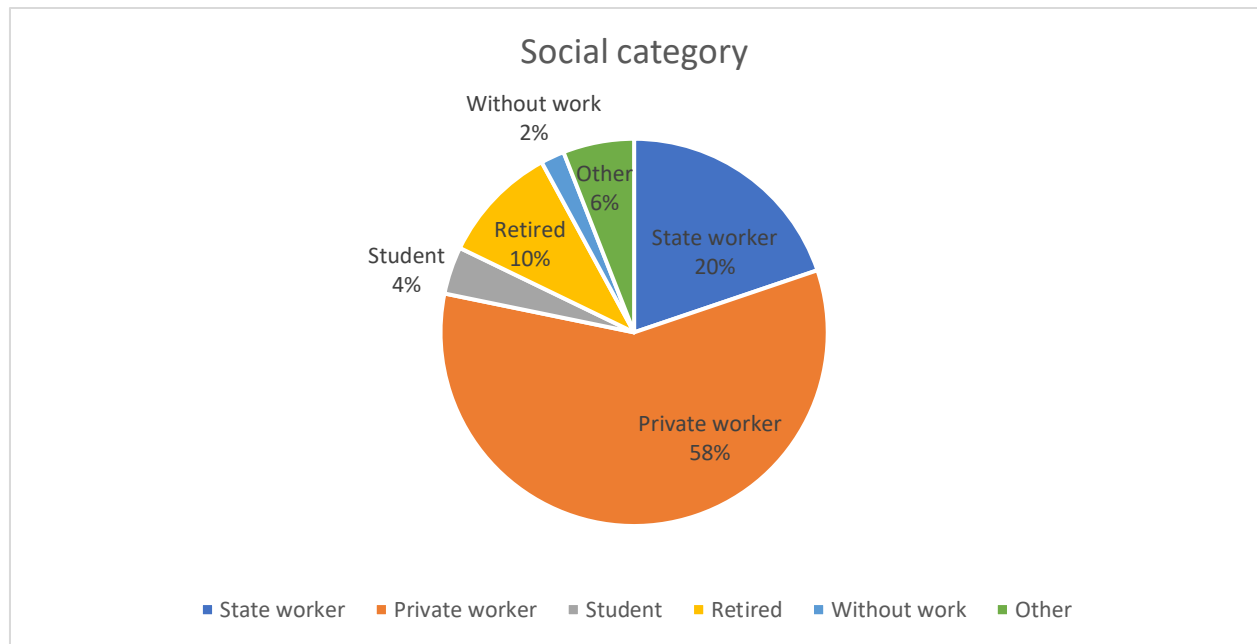


Figure 13 : Answers of the questionnaire for "social category"

Most important social categories shown in figure 13 are "Private worker" (58%), followed by "State worker" (20%) and "Retired" (10%). People filling "other" did not mention which category they belonged to.

3.2 Why are they buying in Spain?

To understand why consumers previously analyzed buy wine in Spain, results from the same survey as before "Wine consumers' preferences in Spain: an analysis using the best-worst scaling approach" (Tiziana de-Magistris*, 2014) are used. These results are completed with results from survey conducted in Terra Remota.

The article "Wine consumers' preferences in Spain: an analysis using the best-worst scaling approach" (Tiziana de-Magistris*, 2014) ranked attributes in order of importance for Spanish wine consumers : first one is "it matches food", second one is "DO" (denomination of origin), third one is "I tasted the wine previously". These results are followed by "grapevine variety", "country of origin", "vintage", "price", "brand name", "I read about it" and finally "label design".

To compare, possible answers to the question "Why are you in Terra Remota?" were "Famous "bodega"", "Proximity with France", "Travel for work", "Advice from a friend", "Loyal Customer", "Total Hazard" "other, please specify". Answers are:

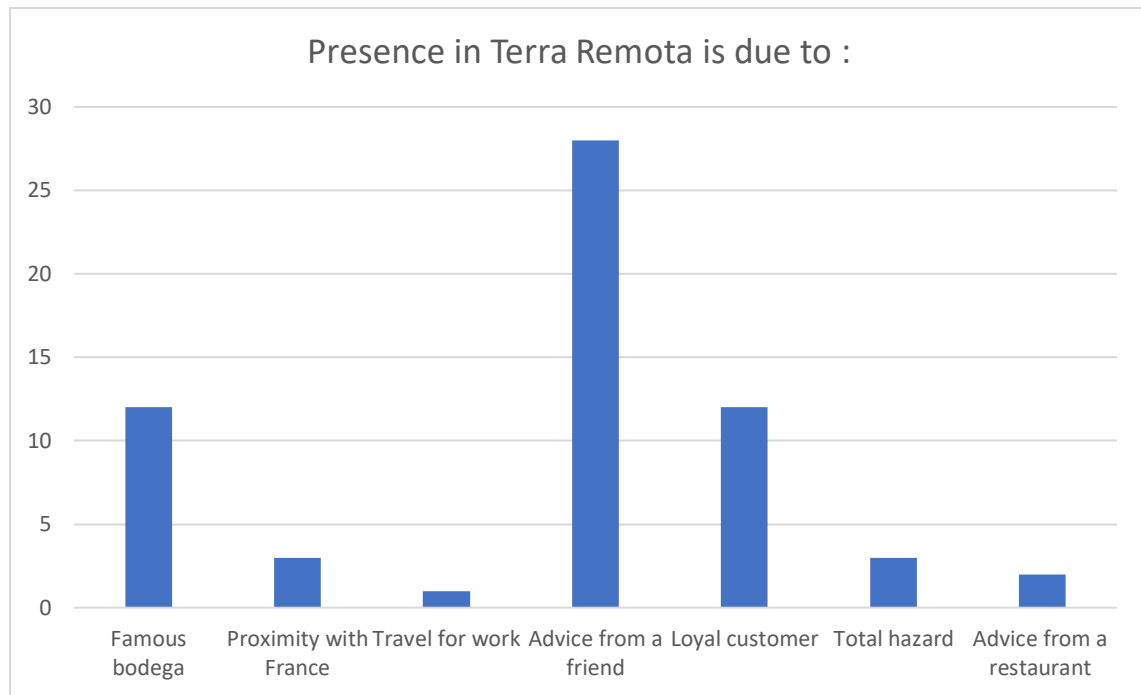


Figure 14 : Answers of the questionnaire per reason of presence in Terra Remota

For this survey, where results are presented in Figure 14, the idea was to know firstly why buyers are present in Terra Remota. Answers can be helpful to establish a future communication strategy about, for example, which communication channel use to promote organic wine depending on the answer of the survey. Regarding answers, the main reason selected by the respondents to be present in Terra Remota is “advice from a friend” (28%), followed equally by “famous bodega” (12%) and “loyal customer” (12%). The rest of answers is very low. 6 persons answered “other” but their answers were gathered under another existing proposal because their meaning were the same. Only answer “advice from a restaurant” for “other” proposal was kept because it was different from existing proposal.

After knowing the consumer’s stated reason for coming in Terra Remota, figure 15 shows answers to the question “what are you looking for” with following proposals; “quality wine”, “grapes variety”, “denomination of origin”, “organic wine”, “a new experience”:

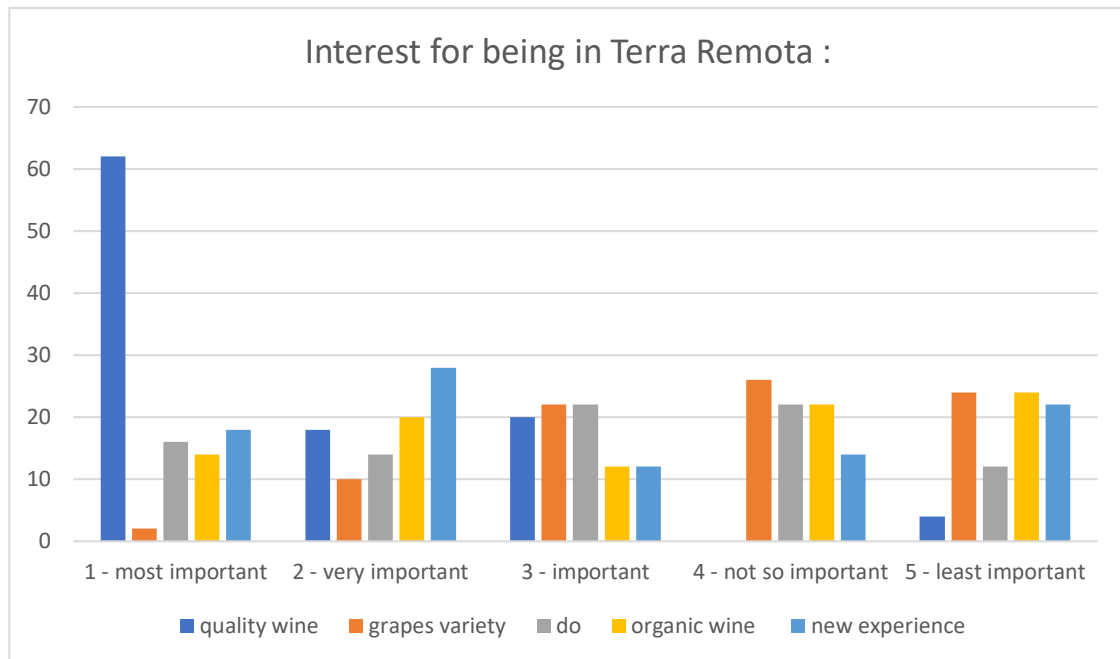


Figure 15 : answers of the questionnaire per interest for being in Terra Remota

It is clear that people firstly looked for “quality wine” (62%), followed by “new experience” (28%). There is no big difference between “grapes variety” and “denomination of origin”, they are very closed in ranks 3 and 4. Answers for “organic wine” are differently ranked in comparison with other ranks: indeed, percentages are almost equal in each rank.

3.3 How are Spanish organic wines perceived?

Tourists and client’s point of view is important for small wine producers. Indeed, tourists and clients are the most important players for “word of mouth”. Professional answers are also very important to have a clear idea of Spanish organic wine perception.

To the question “How do you see Spanish organic wines?” it was possible to answer “yes” or “no” to the following proposal: “cheap wines?”, “good quality/price balance?”, “aperitif wines?”, “high quality wines for special occasions?”. As shown in figure 16, answers were “yes” for “high quality wine for special occasion” (92%) and “good quality price/balance?” (76%). However, answers were “no” for “aperitif wines” (58%) and “cheap wines” (58%).

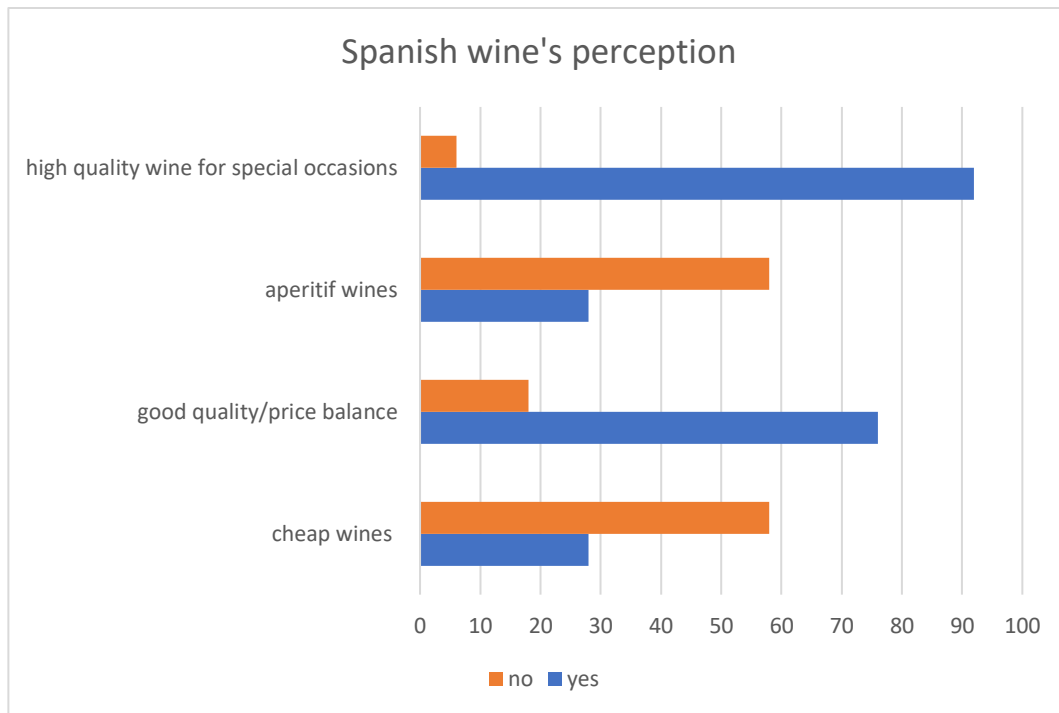


Figure 16 : Answers of the questionnaire per Spanish wine perception

Professional answers for the same question are partially different:

Table 1 : answer of scientific vineyard student

	Yes	No
Cheap wines?		x
Good quality/price balance?	x	
Aperitif wines?		x
High quality wines for special occasions?		x

The answers of scientific vineyard student are “no” for “cheap wines?”, “aperitif wines?”, “high quality wines for special occasions?” and “yes” for “good quality/price balance?”.

Table 2 : answer of an oenologist

	Yes	No
Cheap wines?	X	x
Good quality/price balance?	x	
Aperitif wines?	X	
High quality wines for special occasions?	X	

The answers of an oenologist are “yes” for “cheap wines?”, “good quality/price balance?”, “aperitif wines?”, “high quality wines for special occasions?” and “no” is also attributed to “cheap wines?”.

Answer of an export manager is: “each organic wine can match one or more of these descriptions, as well as not match. It depends on what the consumer is looking for and how their producer / seller describes it.”

3.4 In which sense is the organic label interesting for the buyers?

A last survey is conducted, and professionals are interviewed to answer this sub-question. Answers for the question “what is most important to you when you buy/drink an organic wine?” are:

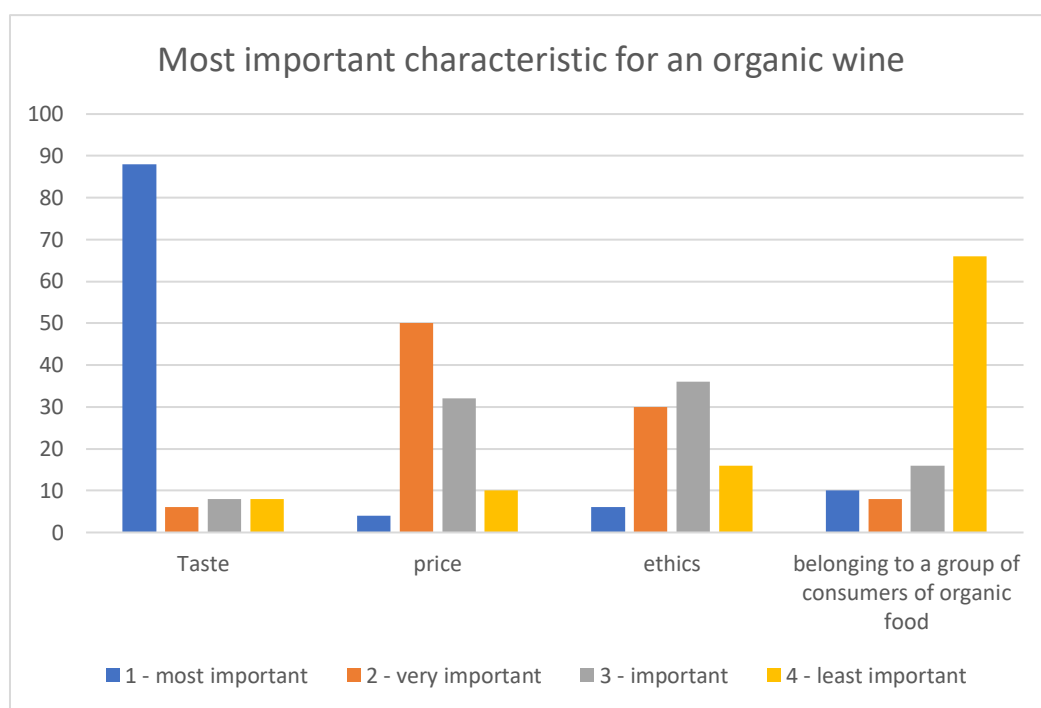


Figure 17 : Answers of questionnaire per importance of organic wine characteristics

Ranking from the first most important wine character to the least important wine character is first “taste” (88%) followed by “price” (50%), “ethics” (36%) and “belonging to a group of consumers of organic food” (66%). These four presented elements now give a clear idea of what wine producers have to focus on to promote their organic wine.

The oenologist also ranked answers as follow: “taste”, “price”, “ethics” and “belonging to a group of consumers of organic food”.

Scientific vineyard student ranked as follow: “taste”, “ethics”, “price” and “belonging to a group of consumers of organic food”.

This sub-question was directly asked during a discussion between oenologist and student. What emerged from this discussion was that before talking about organic label, consumers should be more aware of organic agriculture definition and concept. Too many mistakes about organic agriculture are made because of lack of information. They thought that “organic label” is well promoted but the meaning himself is not and so producers have to firstly work in a way to promote the meaning.

For the scientific vineyard student, first step to promote organic label is to know what type of consumers are interested. After, solutions could be to give small tools and facilitate very specific communication depending of each type of consumers.

Presenting the results of this discussion to a winemaker, he agreed with the meaning issue, admitted that specific communication could be a solution. However, he explained communication is not first task in his job and he did not know how to do.

4. Discussion of results

Finding solutions for Spanish wine producers to improve the use of organic farming label in their marketing was the main objective of this research. The idea was to know who Spanish wine consumers are to focus marketing on this type of consumers and to understand what these consumers thought about Spanish and organic wine in order to enable organic Spanish wine producers to be more competitive and efficient in their marketing. Research started with consumer profile study to consumer preferences to professional point of view and communication advice to trying to find tools and solutions for Spanish wine producers.

4.1 Who are the organic wine buyers in Spain?

This first sub-question was answered thanks to data collection: firstly one from desk research with the article “Wine consumers’ preferences in Spain: an analysis using the best-worst scaling approach” (Tiziana de-Magistris*, 2014), secondly from Terra Remota data, and finally from a survey.

This first sub-question allowed to establish a consumer profile. Gender is mostly “female” about 55% against 45% of male gender as shown in the article, and 54% of female gender against 46% of male gender as shown with the survey.

The same article showed the average age of respondents was 49 years old, which is very closed to results from the survey: main category was 36-45 years old (41%). Two following other categories included people between 46 and 65.

Terra Remota data showed visitors’ nationalities were mainly French and Catalan. According to the survey, nationalities were mainly French, Spanish and Catalan if a distinction were made between the two. “Living country” survey answers complemented nationalities answers. Distinction between “nationality” and “living country” was done because a lot of foreigners live in Spain. Indeed, according to intercultural management knowledge, consumer behavior may be more like the consumer behavior of the nationality of origin than to the consumer behavior of the country where people live. However, answers for living country were “Spain” and “France”.

Main answers for “social category” are “private worker” (58%) and “state worker” (20%).

This first sub-question research part went according to plan: people answered to the questionnaire, desk research from an article was partially used like Terra Remota data.

Data collection went well: people answered easily to the questionnaire, the article extracts paired well with needed information and same for Terra Remota data. However, Terra Remota data could be improved: the information was collected more seriously from September. Moreover, several people collected data throughout the year. This can lead to different sources of errors such as: forgetting to collect, forgetting to postpone, reporting error, no difference between nationality and country of residence. In addition, ages collected by Terra Remota's data are often an estimate, this question being particularly tricky to ask its customers. This data source is therefore to be used sparingly, even if the results correspond to the trend of two other sources of results.

With 82,6 millions of tourists in 2018 and possible wine buyers, this sample is not representing enough the total Spanish market, such as the following article with only 200 people interviewed. To give a representing idea of Spanish organic wine market, survey should be conducted in all Spain and not only for a sample of 100 people. Thus, general public trend should be considered cautiously. For example, number of responding student is skewed because survey timing is during school period, what could explain the small number of students responding. It is the same for state workers: survey timing was not during the general holidays period for state workers, what could explain why most private workers are coming. Moreover, founded nationalities are not exactly representing the different nationalities coming the all year: if the survey was conducted during summer, maybe it could be closer to the reality.

The article "Wine consumers' preferences in Spain: an analysis using the best-worst scaling approach" (Tiziana de-Magistris*, 2014) provided serious results due to the professional source. However, these results were only from Spanish people, which skews the general trend.

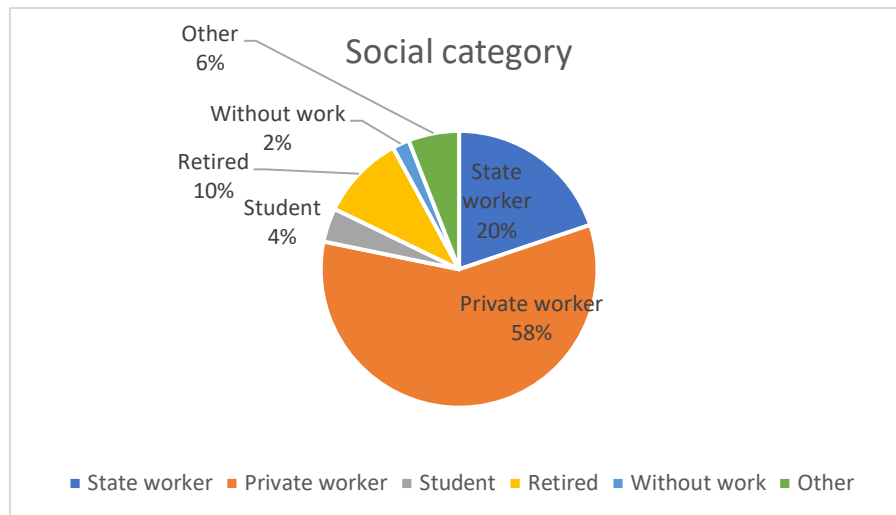


Figure 18 : Answers of the questionnaire for "social category"

Also, proposals for the question "social category" as shown in figure 18 are simplified. To be more precise, proposals could have been more detailed and the question could be completed by another one as "do you think your social category and financial situation are helpful for buying Spanish organic wine?" to create a link between the social category, the financial situation of the customer and the fact that the wine is organic. The same question could have been asked by clearly specifying a difference between a wine from sustainable farming and a wine from organic farming.

Short timing was the main issue: data collected from questionnaire was reliable, but the period to collect them was too short. More or less one month is not enough. To make it in a very professional way, the questionnaire would have had to be approved by a jury of at least 20 persons. The jury would have been of great help in improving the clarity of the questions and the proposed answers. After, the questionnaire would have had to be repeated for 3 years and in all Spain to have the most reliable results.

Also, a political issue was happening during data collection: blocking roads in Catalonia by independentists. Many possible customers who could answer the questionnaire were unable to move due to cuts in the motorway and borders, many visits have been canceled.

However, the few obtained results were those which were expected and were like it was stated in the literature review. Limitations such as time management and the efficiency and perspicacity of the analysis were because this was the first application of such an exercise.

4.2 Why are they buying in Spain?

This second sub-question was also answered thanks to data collection from desk research with the same article than the first sub-question “Wine consumers’ preferences in Spain: an analysis using the best-worst scaling approach” (Tiziana de-Magistris*, 2014), and from a survey conducted in Terra Remota.

The main answers for the question “why are you in Terra Remota” were “advice from a friend” and the main answers for the question “what are you looking for?” were “quality wine” and “new experience”. The main answers about wine characteristics from the article were “it matches food” and “denomination of origin”.

According to Chapter 2 Materials and method, answers for questions of the survey and results from the article were providing answers to know the aim of clients coming and also the characteristics of a product or service that were important to them for a purchase. Results were clear and reliable, but as sub-question number one, results from the article were only Spanish people opinion and timing was too short to have enough answers. But what was very appreciable with the results despite that, is that they already give a very clear answer and far above the others for each question asked.

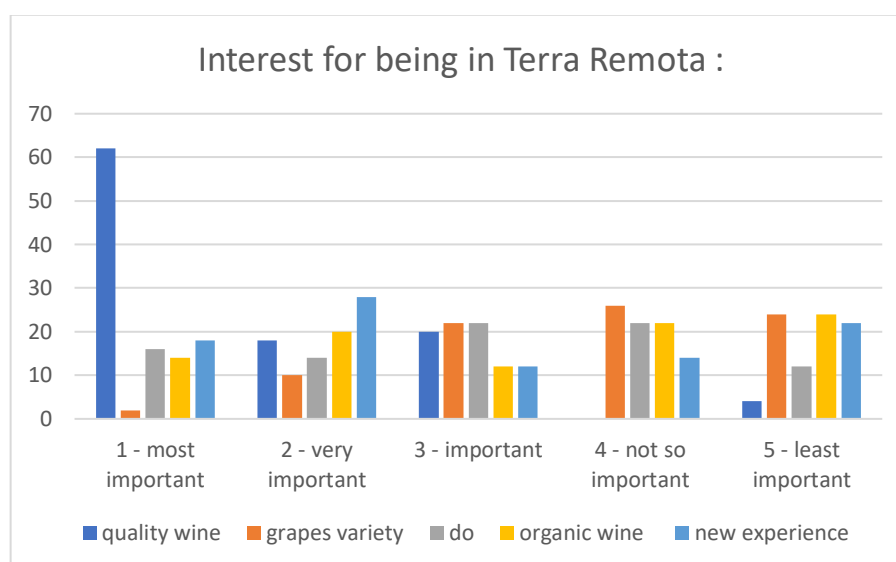


Figure 19 : answers of the questionnaire per interest for being in Terra Remota

Regarding answers of Figure 19, an unexpected result for “organic wine” appeared. It is the only characteristic which is classified equally from most important to least important. It

meant a completely different point of view for consumers. For some, it was the most important element while for others it was not. Regarding to literature review, organic product demand was increasing. Expected results were more significant for this category. This could be due to the customers questioned: it would have been necessary to question only those announcing that they were coming for organic wine, which was difficult because the analysis of the data was done after the customers had left and the questionnaires were anonymous, with no way to contact them for more details.

Afterwards, literature review was a little missing about people's intention to buy Spanish organic wine, this part could be improved. Also, the survey was not enough maybe and specific on Spanish organic wines, that made the link between results interpretation harder than it should be. Number of answering people was not enough too. General public trend is weak due to small number of respondents and disparity between nationalities, age, etc.

4.3 How are Spanish organic wines perceived?

To answer this sub-question, the survey was conducted with the question "how do you see Spanish organic wines?" and the professionals were interviewed. Main aim was to display the old vision of organic Spanish wines with the new fair vision directly asked to consumers.

The survey showed that Spanish organic wines are perceived as "high quality wine for special occasions" and "good quality/price balance". Again, this perception is from a few quantities of answers and not representing general Spanish organic wine consumers. Professionals interviews showed that the oenologist agreed with the survey answer but not the student except for "good quality/price balance". According to Materials and method chapter, the aim was to show that these very recent customers' opinions went against the old opinion about Spanish organic wines "cheap quality wines because of big production" cited in the literature review. Results were those expected. Answers were very clear due to the "closed" question with only answer possibilities of yes or no. To complete this question, it could have been asked through an open question "why?" do you think that the old vision could have been presented to clients to make them more context aware. In addition, it would have been necessary, thanks to an interview for example, to confront someone who is still of the opinion that "cheap quality wines because of big production" and someone who thinks that

things have moved in the right direction for Spanish organic wines. So, more professionals' point of view.

Data collected was reliable but more literature review and desk research for the third chapter would have been necessary. However, this kind of declaration "cheap quality wines because of big production" was rather a big preconceived idea that few professionals can dare to write while this "cliché" was very conveyed in the wine sector. Also, short timing was one of the limitations to perform better this sub-question.

4.4 In which sense is the organic label interesting for the buyers?

Results to this sub-question started with the survey and continued with professional interviews. The question was "what is most important when you buy/drink an organic wine?" and the main result was taste. This result gave an indicator to promote organic wine, for example "tastier", "taste more closer to reality than a sustainable wine". Professionals also ranked "taste" first, but their opinions differed for the second: the student placed "ethics" second and the oenologist "price". Also, discussion with professional raised issues as communication.

These answers lacked development, but if development was pushed further, it would have given real keys and arguments for wine producers.

General public seemed follow the same trend, but the number of interviewed people, the location close to France and the lack of knowledge about organic farming can skewed the trend of total organic wine buyers.

Unexpected results were the discussion with oenologist, student and winemakers: they focus on communication. Clients needed to be aware of organic agriculture and not only with media's point of view but also from professional workers using organic agriculture and producing organic products. For them, the label was better ahead but badly or misunderstood by consumers.

Due to short timing, there was no possibility to directly discuss with few consumers about the precedent professional point of view, what would have been necessary to confirm this thought and to take ideas directly from the concerned public who could have suggested ideas for communication.

In addition, the survey did not focus enough on the benefits of organic agriculture. Desk research on this topic was difficult to find because it was a recent topic and scientific studies were still in process. Regarding literature review, this sub-question could be asked differently with an open question and more focus on organic label.

This research provides available elements about organic wine buyer profiles and their preferences as was expected, thanks to desk research with article, Terra Remota data and thanks to the questionnaire. Wine producers can now use these data to establish a strategy. In addition, professional point of views focuses on which trend there is a needed progress: communication. Moreover, short timing, exceptional political issues and methodology applied for the first time give this result part many areas for improvement, even if recommendations may already be given.

5. Conclusion and recommendations

Conclusion

In Europe, food consumption is evolving, turning to healthy and respectful products, such as organic wine. Wine consumption has been decreasing for many decades, wine is becoming a luxury and so expensive product. Long time, Spanish wines had been seen as “poor quality and cheap wines” due to their big quantity production and their low prices. With this organic agricultural method change, Spain becomes first European organic vineyard with 53 000 hectares to achieve the main purpose “organic farming tends to have a limited the environmental impact”. European commission also implemented controls certifying to consumers that food production process is following rules to maintain consumer confidence in product viability. Production from organic farming is assessed by a logo in shops, and organic demand continues to increase, by creating more choices of products to answer demand and therefore by installing competition between producers. Competition starts with marketing promotion and communication, but sometimes producers did not know how to promote this organic label.

The main objectives of this paper are to help producers to use the organic label in their marketing. Desk research and literature review show that producers did not how to do but also consumers are not aware of the meaning of organic farming label.

Regarding answers, consumer profile is established by a majority of women consumers, aged between 36 and 45 years old from Spain or France and part of private worker social category, present in winery following advice from a friend. They firstly look for quality wine and they perceived Spanish organic wines as “high quality wine for special occasion”. For them, the most important criterium for an organic wine is the taste before ethics and price. Professional opinion follows this trend. These elements and this consumer profile are therefore to be targeted in order to promote the label focusing on wine taste and proposal for which occasion drink this Spanish organic wine, word of mouth manner to talk about, be aware of women sensibility. In addition, the survey showed an obvious lack of communication from interviews and desk research.

In conclusion, founded elements and consumer profile are therefore to be targeted in order to promote the label. Indeed, with this research, Spanish organic wine producers are now more aware of their consumers and what they expected.

To further this research, it could be interesting to apply the survey again during a bigger time-lapse to broaden the profile of consumers and go further in the search for key elements for the marketing side that cannot be more detailed due to short time and lack of answers. However, in relation with stated results, initial recommendations can be made.

Recommendations

Regarding this research, recommendations for Spanish wine producers are:

- To continue to establish a consumer profile, even if they already have an idea about organic Spanish wine consumers. Precise questionnaires are the key to know who their clients are, and it is an important point to offer them a product to suit their demand. Wine producers should use Excel such as it is used in Appendix 2 to classified clients. Thus, they can get in touch with specialized agencies to be help in questionnaire establishment and to analyse results;
- To communicate again and again. Regarding consumers age, communication channels must be targeted according to age groups. Lots of studies are conducted about communication channels in function of client category, but the most famous are brochures, social media, TV and newspapers. Wine producers should write a brochure explaining benefits of organic farming for the earth and health. They also should work using social media: creating a Facebook page for the winery and post every day to show organic wine production step by step, asking people questions. Indeed, social media are easy to use to directly answer clients' questions. Also, wine producers should work with a newspaper specialized in organic wines;
- To reach private companies and private workers as they are mostly customers. Wine producers could go in their company to join special events regarding the element that Spanish organic wine is chosen as "high quality wine for special occasions" is a way to promote, to discuss with possible future clients, to explain organic label and to use it

for marketing purposes: better for the earth, better for health and respectful of the producers according to organic farming definition. To apply this, wine producers could organize a tasting after a meeting for example;

- To promote key elements that the questionnaire highlighted: taste, ethics, price. Giving people the possibility to taste and compare the wine, discuss about ethics and showing them that the price of an organic Spanish wine is as affordable as a wine from sustainable agriculture. Wine producers should go in spaces where wine is most affordable such as supermarkets and talking with clients or organizing a tasting in shops.
- In order to simplify work, they should establish a partnership with a wine commercial specialized in organic farming. Indeed, promote wine and specifically organic label is a lot of work and requires specific marketing skills and knowledge, which are not the first of a wine producer who also maybe did not have time to apply them;
- To make communication more effective, producers should establish partnerships with organic organizations or wine schools to explain the difference between organic wine and sustainable wine, to inform and teach. Young people will become these 36-45 years old customers, and as soon as they are aware of organic farming, they will change their consumer behaviour. Thus, buyer age category could be extended. In addition, wine producers contact organizations such as “DO Emporda Office” which is in charge of tourism in Emporda and can be the first to communicate with clients.
- Regarding marketing strategy, they should highlight the organic farming logo on their bottle labels by using colours or bigger logo etc. They should put panels in their winery to show they are belonging to this farming model and give a first good impression to people coming. Also, on the website they should talk and advertise on organic wine production, using simple text and photography to enable a novice to understand.

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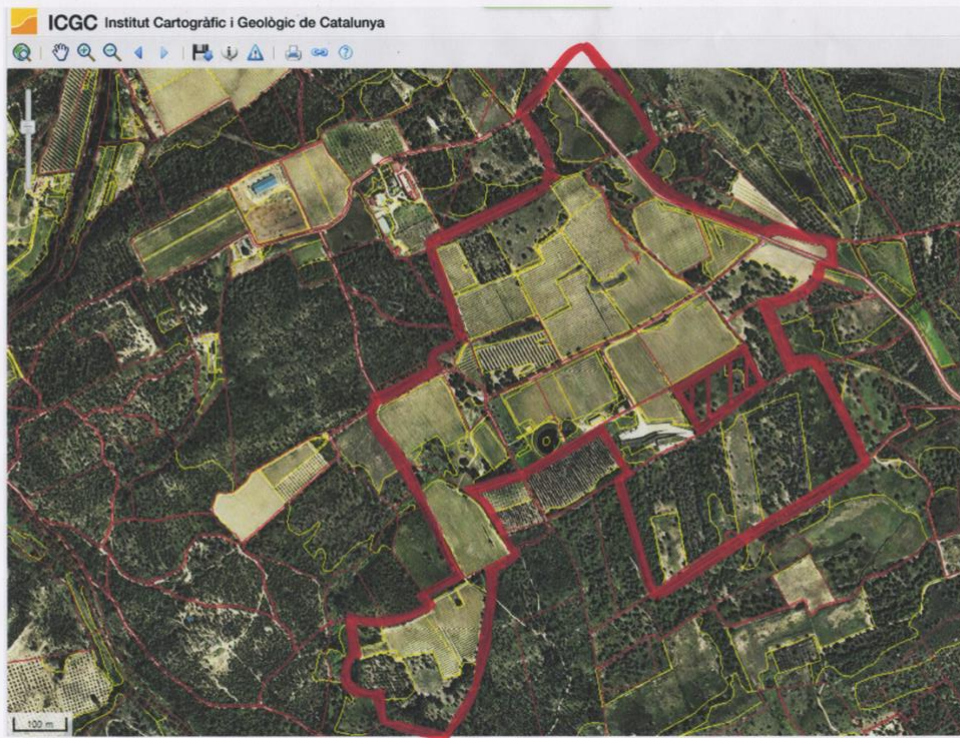


Illustration 6 : Aerial view of Terra Remota

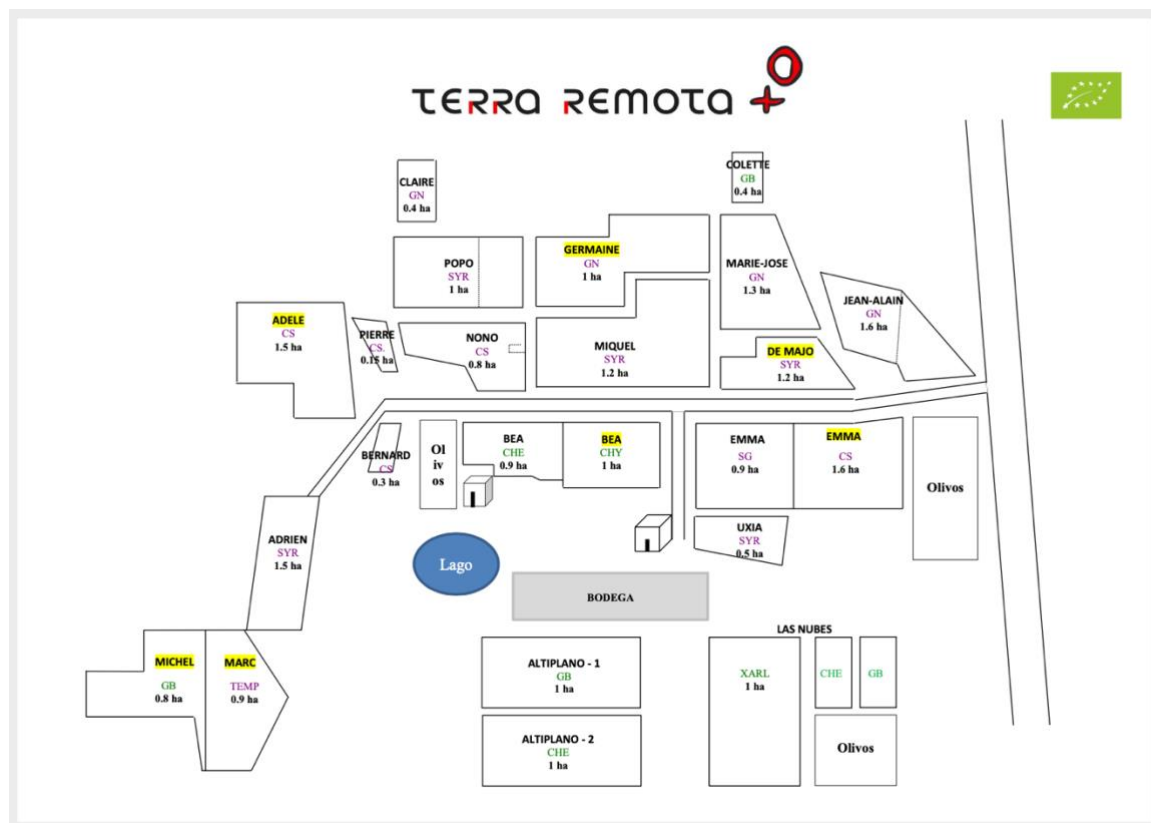


Figure 20 : Plan of Terra Remota

Illustration 7: Extract of september 2019 of the register of tourists, Terra Remota

Illustration 7: Extract of september 2019 of the register of tourists, Terra Remota

Appendix 3: Survey for tourists

Gender – Genre – Género

- o Male / Homme / masculin o Female/mujer/feminin

Age – Age - Edad

.....

Nationality – Nationalité – Nacionalidad

.....

Living country – Pays actuel – País de residencia

.....

Social category – Catégorie Sociale – Categoría social

- o State worker – Fonctionnaire d'état – Funcionario del estado
o Private worker – Travailleur pour le privé – Trabajador privado
o Student - Etudiant - Estudiante
o Retired - Retraité - Jubilado
o Without work - Sans emploi - Desempleado
o Other - Autre – Otros

.....

Why are you in Terra Remota? Pourquoi êtes-vous à Terra Remota ?

- o Famous "bodega" – Bodega célèbre – Bodega famosa
o Proximity with France – Proximité avec la France – Proximidad con Francia
o Travel for work – Voyage pour le travail – Viaje por trabajo
o Advice from a friend – Conseil d'un ami – Recomendación de un amigo
o Loyal Customer – Fidèle client – Cliente habitual
o Total hazard – Hasard Total – Por casualidad
o Other, please specify – Autre, spécifier s'il vous plaît – Otros, especificar por favor:

What are you looking for? Qu'est-ce que vous recherchez ? Que estas buscando ?

Put 1 the most favorite to 5 the least favorite – Classer de 1 votre préféré à 5 le moins important – Ordena por orden de preferencia de 1 el mas prefiera a 5 el menos prefiera :

	Quality wine – vin de qualité – vino de calidad
	Grapes variety - Cépages – variedad de uvas
	Denomination of origin (Emporda) – Dénomination d'Origine (= AOP) – Denominación de origen DO
	Organic wine – vin biologique – vino ecológico
	A new experience – une nouvelle expérience – una nueva experiencia

How do you see Spanish organic wines?

Comment voyez-vous les vins biologiques espagnols?

¿Cómo ves los vinos orgánicos españoles?

	Yes	No
Cheap wines? Vins peu chers ? Vinos economicos		
Good quality/price balance? Bon rapport qualité/prix? Buena relacion calidad/precio?		
Aperitif wines? Vins d'apéritif? Vinos para el aperitivo?		
High quality wines for special occasions?		
Vins haut de gamme pour des occasions spéciales ?		
Vinos de alta calidad para ocasiones especiales?		

What is most important to you when you buy/drink an organic wine?

Qu'est-ce qui est le plus important quand vous achetez/buvez du vin biologique ?

Que es lo más importante para usted a la hora de comprar un vino?

1 to 4 from the most important to the least important.

De 1 à 4 du plus important au moins important

Ordena del 1 al 4 del más importante al menos importante

	taste – gout - sabor
	price – prix - precio
	ethics – éthique - etica
	Belonging to a group of consumers of organic food – appartenance à un groupe de consommateurs de nourriture biologique - Perteneencia a un grupo de consumidores de alimentos organicos

Illustration 8 : Survey for tourists

Appendix 4: Survey for professionals

Person interviewed 24/11/19

→ Identity: Arthur B

→ Position / responsibility / specialty: Former TR intern, vine and wine student

→ Nationality + current country: France

1. How do you see organic Spanish wines?

	Yes	No
Cheap wines? V		<u>x</u>
Good quality/price balance?	x	
Aperitif wines?		x
High quality wines for special occasions?		x

2. What is most important when buying / drinking organic wine?

1 to 4 from most important to least important

1	taste
3	price
2	ethics
4	Belonging to a group of consumers of organic food

3. What does organic (organic wine) mean to you?

Before considering organic, local consumption is more important. Organic is more a trend, a fashion, rather than a true ethics. However, this is an area of progress towards an environmental transition. I question it with points like: is the number of passages of higher tractors "less bad" than a passage for a phytosanitary product in small quantity? Is the future of copper and sulfur in the soil safe?

The difference between an organic wine and a wine from conventional farming is not necessarily noticeable. The fact that the quality is superior is a preconceived idea, it is not always true. The price / quality ratio is lower than for a wine from conventional farming. Rather, we should open to new axes and new working methods.

4. From a professional point of view, is the general public sufficiently aware of what organic means? Yes / no and why

Yes and no. This concept is too based on a preconceived idea of the "all natural, all beautiful, all clean" type. We "sell them dreams" while the actual works are not necessarily in line with nature, only in line with the law that governs organic farming. Law which is not necessarily known to all, and which is therefore idealized.

5. What could change / evolve this in a positive direction, it means that the definition and vision of agriculture and in particular organic viticulture are clearer so that the general public is even better informed?

Going to see the producers directly, encouraging short circuits and getting information from professionals to make up your own mind. It is the exchange which is essential, and which should be improved here.

6. Do you think that the "organic" label is sufficiently emphasized?

Yes, it is very well put forward, even too much. Too much, compared to what is actually done and the promotion is perhaps inappropriate compared to the idea of what people do with an organic wine.

7. What would be the tools / means to change this?

It is necessary to set up axes of progression for the farmers. Small daily improvements in their work, but also accentuate communication. The exchange of the general public with winegrowers, during trade shows or at home, to encourage explanations (technical or not) of the work carried out, the context and the goal.

Illustration 9 : Interview for professional, example of scientific vineyard student

Appendix 5: Article used in desk research

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RESEARCH ARTICLE

OPEN ACCESS

Wine consumers' preferences in Spain: an analysis using the best-worst scaling approach

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Abstract

Research on wine consumers' preferences has largely been explored in the academic literature and the importance of wine attributes has been measured by rating or ranking scales. However, the most recent literature on wine preferences has applied the best-worst scaling approach to avoid the biased outcomes derived from using rating or ranking scales in surveys. This study investigates premium red wine consumers' preferences in Spain by applying best-worst alternatives. To achieve this goal, a random parameter logit model is applied to assess the impacts of wine attributes on the probability of choosing premium quality red wine by using data from an ad-hoc survey conducted in a medium-sized Spanish city. The results suggest that some wine attributes related to past experience (*i.e.* it matches food) followed by some related to personal knowledge (*i.e.* the designation of origin) are valued as the most important, whereas other attributes related to the image of the New World (*i.e.* label or brand name) are perceived as the least important or indifferent.

Additional key words: premium red wine; choice experiment.

Introduction

For decades, the wine sector has contributed significantly to the Spanish agricultural economy, in terms of both production and rural development. To illustrate this point, the Spanish vineyard area is the largest vineyard in Europe (904,000 ha), but it is also among the least productive wine sectors in Europe with an average about 36.9 hL ha⁻¹, quite below other countries such as France or Italy, which have yields close to 60 hL ha⁻¹ (Eurostat, <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>). Even though the Spanish wine sector is still highly fragmented, Spanish wine sales in New World countries have increased dramatically in the past few

years, reaching 81.5 million liters in the US wine market, ranking sixth in 2012 (OEMV, 2012). In the international wine scenario, Spanish wineries are faced with the eruption of New World countries, which base their marketing strategies on strong brands linked to standardized wines. Their wines are supported by substantial investments in promotion and advertising, which lead them to be easily identifiable by consumers through varieties and colored labels. Nevertheless, Spanish wineries are responding to this export strategy by still marketing their wines based on traditional wine attributes (*i.e.* appellation of origin and vintage). On the demand side, Spanish wine consumption has dramatically decreased, reaching 16.2 L per capita in 2010¹ whereas in New World countries (the

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This work has 1 supplementary table that does not appear in the printed article but that accompanies the paper online.

Abbreviations used: AIC (Akaike Information Criterion); BWS (Best Worst Scaling); DBWCE (Discrete Best Worst Choice Experiment); DCE (Discrete Choice Experiment); DO (Denomination of Origin); MNL (Multinomial Logit Model); RPL (Random Parameter Logit); RUT (Random Utility Theory); TDCE (Traditional Discrete Choice Experiments).

¹ Source: Ministerio de Agricultura, Alimentación y Medio Ambiente de España (<http://www.magrama.gob.es/es/alimentacion/temas/consumo-y-comercializacion-y-distribucion-alimentaria/panel-de-consumo-alimentario/base-de-datos-de-consumo-en-hogares/resultado.asp>)

US, Argentina, Chile and South Africa), without a strong wine culture, consumption has developed at a substantial rate. To illustrate this, American wine consumption per capita was around 9.9 L in 2009, with a substantial increase of 14.5% from 2004 to 2009 (Wine Institute, 2010). These results suggest strong competition between Spanish wineries and those from New World countries in order to acquire international positioning, with a future risk, however, of potential market penetration into the Spanish wine market of wines coming from New World countries by using innovative commercial techniques.

Research in traditional wine production and consumption countries differs dramatically from that carried out in new production and consumption countries. For example, studies in Italy, France and Spain have shown that designation of origin (DO), vintage, "it matches food" and "I read about it" were considered to be the most important wine attributes (Angulo et al., 2000; Martinez-Carrasco et al., 2006; Mtimet & Albiu, 2006; Barreiro et al., 2008; Bernabéu et al., 2008; Cohen et al., 2009; Goodman, 2009). However, grape variety, country of origin, "someone recommended it" and "I tasted the wine previously" are the most relevant and preferred wine attributes by consumers from New World countries such as Australia, New Zealand and the United States (Hall et al., 2001; Loureiro, 2003; Schamel & Anderson, 2003; Charter & Pettigrew, 2006; Lockshin et al., 2006; Boudreaux & Palmer, 2007; Jarvis et al., 2007; Johnson & Bruwer, 2007; Hollebeek et al., 2007; Veale, 2008; Kolyenskova et al., 2008; Cohen, 2009; Cohen et al., 2009; Goodman, 2009). Finally, some studies have found that brand name, label design, price and "it won a medal/award" had a similar perceived relevance by Old World and New World wine consumers (Angulo et al., 2000; Hall et al., 2001; Skuras & Vakrou, 2002; Thomas & Pickering, 2003; Lockshin et al., 2006; Martinez-Carrasco et al., 2006; Mtimet & Albiu, 2006; Perrouty et al., 2006; Boudreaux & Palmer, 2007; d'Hautville et al., 2007; Jarvis et al., 2007; Johnson & Bruwer, 2007; Barreiro et al., 2008; Bernabéu et al., 2008; Hertzberg & Malorgio, 2008; Kolyenskova et al., 2008; Casini & Corsi, 2009; Cohen, 2009; Cohen et al., 2009; Goodman, 2009).

Most studies mentioned above have been based on surveys and the importance of wine attributes has been measured by using rating/ranking scales or the discrete choice experiment (DCE) method to estimate wine preferences (Cohen, 2003, 2009; Cohen & Neira, 2003;

Cohen & Orme, 2004; Finn & Louviere, 1992; Hein et al., 2008; Casini & Corsi, 2009; Bernabéu et al., 2012). Although the DCE allows new attributes and combinations to be tested for preferences and respondents are forced to make a trade-off, according to Cohen (2009), the DCE's design and analysis are complex with several attributes. Moreover, Louviere et al. (2000) stated that the most important disadvantage of the DCE is not being able to compare utilities across different experiments. On the other hand, using a rating scale is easy for respondents; however, in accordance with Hein et al. (2008), Cohen (2009), Casini & Corsi (2009) and Bernabéu et al. (2012), rating scales are not discriminative and there is no trade-off or equal distance between categories in an ordinal scale. To illustrate this, rating scales have been used to compare studies among different countries that could differ significantly in their response styles, which might lead to biased conclusions and an increase in the variance in the results (Cohen, 2003, 2009; Cohen & Neira, 2003; Cohen & Orme, 2004; Finn & Louviere, 1992). On the other hand, while ranking scales are easy when the number of attributes is small, when the number increases, they do not provide the importance degree of each attribute (Lockshin & Hall, 2003). Hence, the ranking task could be simplified by using a paired comparison (Cohen, 2009).

To avoid this problem, the most recent economic literature on wine marketing has introduced the best-worst scaling (BWS) methodology. This methodology has the advantage of using a one-dimensional interval scale of the importance of attributes and thus it overcomes the problem of bias caused by differences in the use of rating scales across countries and respondents (Finn & Louviere, 1992; Goodman et al., 2005; Cohen, 2009; Cohen et al., 2009; Goodman, 2009; Casini & Corsi, 2009; Mueller & Rungie, 2009; Bernabéu et al., 2012). Secondly, even though BWS is a multiple choice extension of a paired comparison, offering similar benefits, it is a more efficient questioning structure (Cohen & Orme, 2004; Casini & Corsi, 2009). Moreover, the BWS method provides the best way to discriminate the degree of importance respondents place on each item, while it is easy to understand for respondents (Marley & Louviere, 2005; Auger et al., 2007; Cohen, 2009; Cohen et al., 2009; Goodman, 2009). Most commonly, researchers decide the attributes to be considered for their surveys according to their own perceptions, findings and previous works undertaken by other researchers in referred markets. There

are rarely breakthroughs but a continuous development in the investigated population. However, this work aims to find out how consumers could react if they were exposed to a hypothetical situation, which means that they should buy their wines according to different communication policies that do not exist in the Spanish market at the moment.

The aim of this study was to analyze Spanish consumers' preferences for premium red wines that have a mixture of attributes appreciated not only in the Old World but also in the New World. Indeed, our hypothesis is that some wine attributes relevant in the New World, such as "I tasted the wine previously" and "grapevine variety" are valued as more important than other wine attributes such as "vintage" and "it matches food", which are some of the most important wine attributes in Spain. This assumption might indicate a movement towards paying more attention to different characteristics in accordance with new dynamic markets.

We undertake this study by using data from a survey conducted in Spain applying the BWS methodology. The multinomial logit model (MNL) and random parameter logit model (RPL) were estimated in order to identify some heterogeneity in wine preferences and a related market share for each wine attribute.

This study expands the literature on consumers' preferences in wine marketing, using the BWS method to assess wine preferences in Spain. To illustrate this, Bernabéu et al. (2012) conducted a similar study on consumer preferences in Spain, during the same year (2009) but in a different area (Castilla La Mancha). This was addressed to consumers that know their wine preferences and they introduced 11 attributes. The selected attributes were mostly different from this work, although some of them were the same.

Material and methods

Data collection

In order to analyze consumer preferences by using the BWS methodology for wine in Spain, data were collected from a survey conducted in Zaragoza (Ara-

gon-Spain), during November and December 2009. The socio-demographics in Zaragoza are representative of the Spanish Census of Population (see Suppl. Table S1 [pdf]). Zaragoza is located in the north of Spain, in the Aragón region, where four DOs exist (Borja, Cariñena, Catalunya and Samontano). The average consumption of wine in Aragón was 8.25 L per capita in 2009, close to the Spanish average of 9.87 L¹. Target respondents were wine shoppers and interviews were carried out face-to-face outside supermarkets. Interviewers randomly approached individuals asking them whether they consume wine at least occasionally.

The questionnaire was designed to include nine choice sets based on premium red wines with different characteristics/attributes. They were presented to respondents, explaining to them the purpose of the study and how to fill in the choice sets in the survey. In addition, consumers were asked questions related to their knowledge about premium red wine, attitudes towards wine and willingness to buy premium red wines. The questionnaire also contained questions on socio-demographic characteristics (*i.e.* sex, family size and composition, age, education level, income) and consumers' eating habits. Prior to the main survey, this questionnaire was validated by using a pilot survey of 20 consumers to test the questions.

The sample size in Zaragoza was set at 200. A stratified random sample of consumers was carried out based on town district and age. About half of respondents are female (55%) living in households of three members on average (Table 1). In addition, the average age in Zaragoza is about 50 years, while nearly 10% belong to high-income groups and about 23% of subjects have a university degree.

The BWS method: experimental design

The BWS methodology was introduced by Finn & Louviere (1992) and formalized more recently by Marley & Louviere (2005). It consists of a measurement and scaling technique where respondents are asked to choose in each data set of attributes or statements the most preferred and least preferred attributes. Normally,

Most important		Least important	
<input type="checkbox"/>	Price	<input type="checkbox"/>	
<input type="checkbox"/>	Someone recommended it	<input type="checkbox"/>	
<input type="checkbox"/>	It won a medal/award	<input type="checkbox"/>	
<input type="checkbox"/>	Matching food	<input type="checkbox"/>	

Figure 1. An example of best worst choice set as presented to respondents.

software "Sawtooth MaxDiff Designer" (Sawtooth, 2007) was employed to carry out simulations with different combinations of attributes to get the best experimental design properties. According to Orme (2006), this program considers one-way frequency (how many times each attribute appears across the entire design), two-way frequencies (how many times each pair of items appears within the same set across the entire design), connectivity (all items are linked directly) and positional frequencies (how many times each item appears in the first, second, third or fourth positions). The experimental design also considered the alternative position effect, which is why the simulations resulted in four task versions. Each version has the same sample size to maintain its statistical properties.

Likewise, in the questionnaire, nine choice sets were shown and each choice was presented in a separate table. An example of one choice set is presented in Fig. 1. Respondents were asked to tick the attribute/item that most influenced them and the one with least influenced them when shopping for wine.

Specification models

Stated choice methods are based on random utility theory, which was proposed by Thurstone in 1927. This theory supposes that person (q) has a determined utility ($U_{i,q}$) with an alternative (i) and that this utility can be separated into a systematic component ($V_{i,q}$) that can be observed and measured and a random component ($\epsilon_{i,q}$) that captures the measurement errors of the model (Eq. [1]):

$$U_{i,q} = V_{i,q} + \epsilon_{i,q} \quad [1]$$

In traditional DCEs, the key assumption is that individual q will choose alternative i as the best

alternative of choice set A if and only if $U_{i,q} > U_{j,q}$ all $i, j \in A$. Discrete best-worst choice experiments (DBWCEs) consider that individual q chooses the pair of alternatives i and k , respectively, as the best and worst alternatives of choice set A if and only if $\Delta U_{i,k,q} > \Delta U_{j,l,q}$ for all $i, k, j, l \in A$.

When consumers are asked to answer best-worst questions, they choose the two wine attributes that maximize the difference between them on an underlying scale of importance. If a choice set has J wine attributes, then there are $J(J-1)$ possible best-worst combinations a Spanish consumer could choose. The specific pair of wine attributes chosen by the consumer as best and worst then represents a choice from all $J(J-1)$ possible pairs that maximize the differences in importance.

There are many kinds of DBWCEs and one of them measures attributes. This experiment involves the measurement of attributes relative to importance. The choice task consists of stating the most and least important alternatives, which are represented for an attribute, in each choice set. In our case, consumers indicated the most and least important attributes of a premium red wine. By adopting the variable representation in Lusk & Briggnerman (2009), Eq. [1] can be modified to Eq. [2] to represent attribute importance and Eq. [2] can be transformed into Eq. [3] to represent the differences in attribute importance:

$$I_{i,q} = \lambda_{i,q} + \epsilon_{i,q} \quad [2]$$

$$\Delta I_{i,k,q} = I_{i,q} - I_{k,q} = \lambda_{i,q} - \lambda_{k,q} + \epsilon_{i,k,q} \quad [3]$$

where $I_{i,q}$ is the latent unobserved level of importance that individual q gives to attribute i ; $\lambda_{i,q}$ represents the location of value i on the underlying scale of importance; $\epsilon_{i,q}$ is a random error term; $\Delta I_{i,k,q}$ is the importance difference between attributes i and k ; and

Table 1. Sample characteristics

Name (Type)	Variable definition	Value
FEMALE (dummy)	Gender	
	Male	45%
	Female	55%
HISIZE (continuous)	Household size	2.97
AGE (continuous)	Age of respondent (average)	49
UNIVERSITY (dummy)	Education of respondent	
	Elementary	30%
	Secondary	47%
	University	23%
HINCOME (dummy)	Average household income	
	Households with net income lower than € 1,500 month ⁻¹	34.5%
	Households with net income between € 1,500 and € 2,500 month ⁻¹	37.5%
	Households with net income higher than € 2,500 month ⁻¹	28.2%
KNOWLEDGE	Consumer's wine knowledge	
	High (3)	6.0%
	Medium (2)	61.5%
	Low (1)	32.5%
SPECIALTY	Place of purchase wine	
	Specialized wine store	13%
INFORMATION (Likert scale)	I used to seek for information about premium red wine before buying it	3.65
DO (Likert scale)	I used to consume designation of origin products	4.03
FEELINGS (Likert scale)	Drinking premium red wine make me feel good	4.02

researchers are interested in measuring attribute impacts on consumer decisions (Flynn et al., 2007). The experimental design in this study consists of 12 wine attributes selected from a literature review of papers published from 2000 to 2009 in ISI- or Scopus-indexed journals. The idea was to analyze to what extent Spanish consumers value different hypothetical wines defined by well-known attributes used to market wines in both the Old World and the New World. In particular, we considered four attributes related to consumers' preferences in Old World countries, four attributes that are more relevant in New World countries and four attributes that are considered to be important by both of them. Some of the selected attributes such as the DO, vintage and grapevine are linked to the personal knowledge levels of wine consumers, whereas others refer to their past experiences such as tasting it previously and matches food. Furthermore, some wine attributes evocate an image of wine, such as the country of origin and winning a medal or prize.

We expect that wines with a higher recognition or image will have a higher premium price. Finally, some attributes such as label and brand name are linked to wine reputation.

The first step to design our experimental design was to decide the choice set size because large choice sets provide more preference information than short ones, but they demand more cognitive effort and the quality of the answers may decrease. The second step was to decide the number of times that each attribute would be presented to respondents. Orme (2006) recommended that the choice set size should be between three and five alternatives and that each attribute should be presented to respondents between three and five times. Therefore, the total number of choice sets in the experiment was nine (Number of attributes \times Number of times that each attribute is presented / Number of attributes in each choice set = $12 \times 3 / 4$).

The next step in the experimental design was the allocation of the attributes along the choice sets. The

¹ We used a balanced incomplete block design since the attributes appeared three times in the nine choice sets in each version. This design was used by Goodman et al. (2005) and Bernabéu et al. (2012).

ε_{ija} is an error term of selecting i as the most important attribute and k as the least important. This error term is an independent and identically distributed type i extreme value across j premium red wine attributes. Thus, the probability (P_{ija}) that individual j selects attribute i and attribute k as the most and least important attributes, respectively, from a choice set with J items is the probability that the difference in I_{ij} and I_{ik} is greater than all other $J(J-1)-1$ possible differences in the choice set. This takes the MNL form, as in Eq. [4]:

$$P_{ija} = \frac{\exp(\lambda_i - \lambda_k)}{\sum_{j=1}^J \exp(\lambda_j - \lambda_k)} \quad [4]$$

In traditional DCEs, the probability of choosing alternative i as the best one is directly proportional to its utility and the utility provided by the other alternatives. In our case (*i.e.* a DBWCE), the probability of choosing the pair ik of alternatives, respectively, as the most and least important attributes is directly proportional to the difference in importance and the differences in importance between the remaining $J(J-1)-1$ pairs of alternatives (attributes).

The relative importance of each attribute is estimated by the maximization of the log-likelihood function based on the probability P_{ija} . The dependent variable takes the value of 1 for the pair of wine attributes chosen by respondents as best and worst, and 0 otherwise. The estimated parameters λ_i represent the importance of wine attribute i relative to another wine attribute that was normalized to zero (Lusk & Briggeman, 2009).

Then, the share of preferences for each wine attribute (s_i) is calculated as follows:

$$s_i = \frac{\exp(\lambda_i)}{\sum_{j=1}^J \exp(\lambda_j)} \quad [5]$$

This equation reports the importance of value i on a ratio scale, meaning that if one value is shared a value twice that of another value, it can accurately be said that the former value is twice as important as the latter. These shares are the forecasted probability that each attribute is picked as most important (Lusk & Briggeman, 2009).

The MNL model assumes preference homogeneity in the sample, indicating that consumers place the same importance on each premium red wine's attribute; therefore, all the coefficients of the utility function in

Eq. [2] are the same across individuals. By contrast, the RPL model takes into account the heterogeneity of consumers' preferences and allows for random preferences, unrestricted substitution patterns and correlations in unobserved factors over time (Train, 2003). In particular, the importance coefficient for wine attribute j for individual q may be specified as $\lambda_{jq} = \lambda_j + \sigma_j \mu_{jq}$, where λ_j and σ_j are the mean and standard deviation of λ_j in the population and μ_{jq} is a random term normally distributed with mean zero and unit standard deviation. Substituting this last expression in Eq. [4] yields the probability statement that depends on the random term μ_{jq} and the model is estimated via simulation. Parameters are calculated by maximizing a simulated log-likelihood function, evaluated as the number of pseudorandom Halton draws for μ_{jq} . These random draws are individual-specific, which means that it considers that each consumer has answered nine choice situations and in each choice set he or she stated the most and least important attributes.

In the standard RPL model, estimated preference parameters are assumed to be random but independently distributed from each other. However, depending on the attributes under study, we can expect some attributes to be interdependent. To take this into account, the correlation structure of the estimated parameters is assumed to follow a multivariate normal distribution (normal with vector mean μ and variance-covariance matrix Ω). If at least some of the estimates for elements of the Cholesky matrix C (where $C'C = \Omega$) show statistical significance, then the data are supportive of dependence across preferences.

Three different models were estimated by using Nlogit 4.0, keeping "it won a medal" as a reference wine attribute. Model 1 corresponds to the standard MNL model and model 2 to the RPL model. Model 3 is an RPL model where the assumption about the independence of preference parameters is relaxed by using a multivariate normal distribution.

Finally, we tested whether the preference shares for all the attributes statistically differ according to individuals' characteristics by using the *t*-test, the Bonferroni test and the Pearson correlation test depending on the types of variables. Individuals' characteristics are presented in Table 1. Firstly, wine knowledge (KNOWLEDGE) was measured by the consumer's self-reported level of knowledge from 1 to 3, where 3 indicates the highest level of knowledge (Table 1). Moreover, respondents were asked whether they usually buy wine in specialty stores (SPECIALTY). Regarding eating

and drinking habits, respondents were asked to indicate their agreement or disagreement with statements, using a five-point Likert scale where 1 indicates strong disagreement and 5 strong agreement. These statements were 1 used to seek information on red wine before buying it (INFORMATION), 1 used to consume DO products (DO) and drinking premium red wine made me feel good (FEELINGS).

Results

Estimated parameters

The results for the three models are presented in Table 2. To test which of the different assumed specifications is preferred, first we looked at the log-likelihood and pseudo R^2 values. Both values reached their best values in Model 3. In addition, all values in the Cholesky matrix were statistically significant except for the "it matches food" attribute, indicating that the random parameters are indeed correlated. Thus, Model 3 was the one used for further analysis.

Note that Spanish consumers considered "it matches food" to be the most important attribute, followed by "DO". The next most important attributes influencing Spanish consumers were "I tasted the wine previously", "grapevine variety" and "country of origin". "Vintage", "someone recommended it" and "price" were positively valued but less important. "Brand name" and "I read about it" were not statistically significant from zero. This last result suggests that Spanish consumers are indifferent towards these two attributes because they do not perceive them either best or worst. Finally, on the negative side, "label design" was the least important wine attribute (statistically significant at 5%). This result implies that Spanish consumers are to a lesser degree influenced by the "label design" when they buy a bottle of premium red wine and then a possible strategy adopted by Spanish wineries based on label design could not be successful.

Finally, the standard deviations of wine coefficients in Model 3 were statistically significant at 5%,

implying that heterogeneity is an issue to be taken into account for wine consumers' preferences.

Share of preferences

As shown in Table 2, around 24% people on average chose "It matches food" as the most important wine attribute. The attribute "DO" had the next highest share of preference with almost 19% of people on average, followed by "I tasted the wine previously" with an average of 12%. Around 9% of participants chose "country of origin" and "grape variety" as the most important wine attributes followed by "vintage" (7% of respondents). The next group of attributes, with percentages of between 3% and 5%, were "someone recommended it", "price", "brand name" and "I read about it". Finally, fewer than 1% of participants chose "label design" as the most important attribute.

The "price" attribute showed low importance for consumers (around 5%). This result confirms that price is not considered to be an important factor when consumers buy premium red wine. Actually, consumers expected these kinds of wines to have higher prices, and thus they pay more attention to other wine attributes such as "DO" and "it matches food".

Explaining heterogeneity

As mentioned above, the heterogeneity of consumers' preferences towards wine attributes was detected. Heterogeneity is an issue to be taken into account when marketing premium red wines. To investigate further the main determinants of this heterogeneity, consumers were asked about their level of wine knowledge, in which type of store they buy wine to be consumed at home, some eating and drinking habits and their economic and socio-demographic characteristics. From our previous estimations, we calculated the preference shares for each respondent by using individual-specific estimates¹.

Table 3 shows the mean preference shares and consumers' personal characteristics with the statistical

Table 2. Relative importance of wine attributes: Estimates parameters and market shares. In parenthesis, *t*-value

Attribute	Model 1 Parameter	Model 2 Parameter	Model 3 Parameter	Market share (%)
Designation of origin	1.17** (13.28)	1.67** (13.56)	1.69** (18.51)	18.63
Label design	-1.14** (-12.02)	-1.57** (-11.00)	-1.53** (-11.68)	0.74
Vintage	0.48** (5.63)	0.67** (6.03)	0.73** (6.44)	7.14
It is matching food	1.34** (14.90)	2.03** (13.07)	1.94** (16.43)	23.93
Country of origin	0.58** (6.90)	1.04** (7.87)	0.91** (8.79)	8.54
Grapevine variety	0.66** (7.74)	1.02** (8.03)	1.05** (8.89)	9.83
Brand name	-0.028 (-0.03)	-0.01 (-0.09)	-0.11 (-0.91)	3.08
Someone recommended me	0.15* (1.80)	0.23* (1.90)	0.32** (2.69)	4.74
I tasted the wine previously	0.81** (9.23)	1.13** (9.25)	1.27** (11.49)	12.24
I read about it	-0.01 (-1.15)	-0.15 (-1.29)	-0.12 (-1.05)	3.05
Price	0.22** (2.62)	0.35** (3.06)	0.30** (2.79)	4.64
It won a medal ¹	n.a.	n.a.	n.a.	3.44
Standard deviations				
Designation of origin	0.92** (11.81)	0.72** (10.01)		
Label design	1.29** (6.87)	1.58** (9.18)		
Vintage	0.67** (5.17)	0.90** (8.61)		
It is matching food	1.67** (12.10)	1.80** (13.36)		
Country of origin	1.45** (10.90)	1.42** (11.57)		
Grape variety	1.22** (10.60)	1.54** (13.36)		
Brand name	0.95** (7.04)	1.19** (11.55)		
Someone recommended me	1.29** (10.72)	1.46** (13.94)		
I tasted the wine previously	1.04** (7.25)	1.11** (14.48)		
I read about it	0.92** (11.81)	1.22** (15.05)		
Price	0.92** (11.81)	1.27** (14.97)		

Table 2. Relative importance of wine attributes: Estimates parameters and market shares. In parenthesis, *t*-value (cont.)

Attribute	Model 1 Parameter	Model 2 Parameter	Model 3 Parameter	Market share (%)
Diagonal values in Cholesky matrix				
Designation of origin			0.721** (10.01)	
Label design			0.115** (2.53)	
Vintage			0.100** (4.35)	
It is matching food			0.113 (1.16)	
Country of origin			0.122** (8.08)	
Grape variety			0.124** (10.84)	
Brand name			0.113** (7.63)	
Someone recommended me			0.128** (9.09)	
I tasted the wine previously			0.086** (6.96)	
I read about it			0.072** (10.01)	
Price			0.072** (10.0)	
# individuals	200	200	200	
# choices	1,800	1,800	1,800	
Log Likelihood	-3,869	-3,549	-3,503	
Pseudo R^2	0.12	0.20	0.21	
AIC	4.34	3.99	3.95	

¹ The attribute "It won a medal/award" is the reference category. ** statistically significant at 10% and 5%, respectively (*z*-test).

significance from the *t*-test or Bonferroni test. Moreover, Table 4 reports the correlations between the shares of preferences and consumers' personal characteristics and the statistical significance from the *t*-test or Bonferroni test. The results indicate that only three socio-demographic characteristics (gender, education and age) explain the heterogeneity of preference shares and for only seven of 12 attributes. In addition, level of wine knowledge explains preference heterogeneity for five of the wine attributes. Other personal characteristics, such as the individual states that purchase wine in specialty stores, seeking additional information before buying wine, usually consumes DO pro-

ducts and feels better when drinking wine, were statistically significant for some attributes. On the other hand, preference heterogeneity for "brand name" and "I tasted the wine previously" were not explained by any of the analyzed consumers' personal characteristics.

First, we focused on the results for those attributes with the highest shares ("it matches food" and "DO") and the "price" attribute because price is usually considered to be a quality signal. As shown in Tables 3 and 4, the preference share heterogeneity for "it matches food" was only explained by the respondent's age and whether he or she buys wine in a specialty store. These

Table 3. Means preference shares and consumers' personal characteristics

Attributes	FEMALE				UNIVERSITY				KNOWLEDGE				SPECIALTY			
	Female	Male	Yes	No	Low	Medium	High	Yes	No	Low	Medium	High	Yes	No	Low	High
Designation of origin	0.160*	0.138*	0.131*	0.156*												
Vintage					0.044*	0.058*	0.052*						0.39**	0.28**		
It is matching food								0.118*	0.071*							
Country of origin					0.073*	0.118*	0.114*									
Grape variety					0.073**	0.044**	0.059*	0.043*	0.079*							
Someone recommended me					0.035**	0.024**	0.029*	0.025*	0.022*							
I read about it					0.040**	0.066**	0.068*	0.043*	0.054*							
Price										0.020*	0.024*					
It won a medal/award																

* Different superscript letters indicate that group means are different at the 5% significance level using the Bonferroni test.
 ** statistically significant at 10% and 5%, respectively (t-test).

Table 4. Correlations between shares of preference and consumers' personal characteristics

Attributes	AGE	INFORMATION	DO	FEELINGS
Designation of origin			0.210**	
Label design	-0.187**			
It is matching food	0.236**			
Grape variety		0.236**		
Someone recommended me	-0.298**		-0.186	
Price		-0.216**	-0.218**	

** statistically significant at 10% and 5%, respectively (t-test)

results mean that as the age of the respondent increases, he or she is more likely to choose the attribute "it matches food" as the most important. The same happens for those respondents who state buying wines to be consumed at home in specialty stores (SPECIALTY) because a higher percentage of them would choose this attribute as the most important. On the other hand, the preference share heterogeneity for "DO" was explained by gender, university degree and whether respondents usually buy DO products. In particular, the findings suggest that higher percentages of women, people without university degrees and people who state that they usually buy DO products chose "DO" as the most important attribute compared with the percentages for their counterparts.

The preference share heterogeneity for the "price" attribute was explained by gender, level of knowledge, whether the respondent buys DO products and feels better when drinking wine. As expected, a lower percentage of women and a higher percentage of less knowledgeable respondents chose price as the most important attribute. In addition, there was a negative

correlation between price and usually buying DO products as well as feeling better when drinking wine. Hence, consumers that think that price is more important to a lesser extent usually buy DO products and feel better when drinking wine.

Second, we focused on the results on the level of knowledge because this characteristic influences a higher number of attributes. The findings indicate that the percentage of respondents who chose "vintage" and "grape variety" as the most important was lower for people with lower knowledge. On the other hand, this percentage for the attribute "someone recommended it" was higher for respondents with higher knowledge. Finally, the percentage of respondents who chose "I read about it" as the most important was higher for those people with lower knowledge.

Discussion

During recent years, New World countries have continuously gained market share in world wine markets

at the expense of Old World countries whose share of exports has gradually declined. The success of New World countries is based partially on their capacity to emphasize different attributes of their wines from those of Old World countries, which are still marketing their wines by using traditional attributes. So far, the market penetration of wines coming from the New World into the Old World is weak, but future prospects might be different.

Published research suggests that wine consumers place more importance on some attributes than others depending on different national cultures. The most recent advances about consumer preferences have shown that the BWS methodology provides a more discriminating way to measure the degree of the importance respondents attach to different attributes. This method was applied in this work to assess the importance Spanish consumers attach to different wine attributes. These attributes, selected after a literature review of published research in the most important journals, were found to be highly appreciated by consumers in the Old World and New World, although with different levels of intensity. A mix of attributes appreciated by consumers from the Old World and New World was thus tested.

The results of our study confirm that the BWS method overcomes most of the limitations of rating and ranking methods since it provides a better understanding of a consumer's evaluation of wine attributes. The similarity with another experiment undertaken in Spain (Bernabéu et al., 2012) during the same year, but in a different region, provides material for a comparative analysis. This analysis provides business managers insights into how consumers evaluate usual and unusual wine attributes. Hence, they are more likely to design efficient marketing strategies aimed at targeting different consumer segments and to face more efficiently the decreasing wine consumption in the Spanish market. It is commonly accepted that young consumers and women are two segments with great consumption potential that do not receive appropriate communication. In this work, we found empirical evidence that gender and age explain preference share heterogeneity for seven attributes and more emphasis is given to these two segments.

We found that Spanish consumers consider "it matches food" to be the most important attribute and this is linked to their age, since the older the respondent, the greater the consumer's preferences are. Therefore, young people might not prefer this attribute and

marketing communication should be based on other attributes. For them, wine consumption is not necessarily linked to food but rather other consumption occasions. This is an important finding to redesign the communication policy for young consumers. However, older people buy premium red wines for special gatherings with friends and family where food is present and they more often use specialty shops to buy their wine.

"DO" is the second most important attribute but this is mostly preferred by women. These results are in accordance with other studies from Old World countries (Angulo et al., 2000; Combris et al., 2000; Mimet & Albisu, 2006; Perrouy et al., 2006; d'Hauteville et al., 2007; Barreiro et al., 2008; Hertzberg & Malorgio, 2008; Bernabéu et al., 2012). Thus, there are clear indications that this attribute should have more emphasis in communications with them. The communication policy should include many different aspects related to DO and not only technical matters, as is usually the case. It is also remarkable that consumers, without university degrees appreciate this attribute, which reinforces the idea about carefully selecting the topics that define the DO.

However, in contrast to previous studies carried out in Spain (Angulo et al., 2000; Mimet & Albisu, 2006; Barreiro et al., 2008), the following most important attributes were "I tasted the wine previously", "grape-vine variety" and "country of origin", which are usually employed in Old World countries. In that respect, this work shows that Spanish consumers concur with New World consumers. The greater number of wines in the market has switched consumers' preferences towards attributes that imply less knowledge or that are more easily identifiable. In a market with so many different brands, tasting is becoming more and more important as a consumer reference. This is in accordance with the weak importance they give to labels and brand names.

This work shows that past experiences (expressed by the attributes "matches food" and "tasted previously") are more important than personal knowledge ("DO", "vintage" and "grapevine") and the image of wine ("country of origin" and "winning a medal or prize"). This suggests pursuing marketing with greater emphasis on tasting complemented by information to reinforce knowledge, which affects five attributes.

When comparing this work with that undertaken by Bernabéu et al. (2012), it should be stressed that only five attributes were exactly the same in both studies,

while three are different and the rest do not measure exactly the same topic. For example, "vintage" cannot be considered to be the same as "aging", "country of origin" does not reflect the same as "region of origin" and "label design" is not the same as "design of the bottle and label". In our study, nine data sets were considered, whereas in Bernabéu et al. (2012) there were 12. It would be also interesting to check the optimum level of data sets that consumers are able to distinguish.

The findings of Bernabéu et al. (2012) showed that the attributes that seemed to condition wine consumers the most were "tasted the wine previously" and "region of origin", which is not precisely the order found in this study. Subtleties could also be important to compare consumers' reactions, because the use of "DO" instead of "region of origin" implies not only the territory but also quality assurance. Similar to our work, the preference share heterogeneity for "DO" is explained by gender, suggesting that a higher percentage of women would choose this attribute as the most important.

Although we identified heterogeneity in wine preferences for Spanish consumers and explained this heterogeneity to some extent, it would also be interesting to identify specific groups of consumers and profile them in further research. However, this study shows two limitations. The first one is related to the measurement of wine knowledge, which is very subjective and may have influenced the results. The second limitation of the analysis is that it was only conducted in Spain, an Old World country. Further research extending the analysis to New World countries should be undertaken to find out whether marketing strategies should differ when selling wines in Old World and New World countries.

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