VARIABLES THAT INFLUENCE THE PURCHASE OF A BOTTLE OF WINE

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Abstract

This work is supported by the results obtained from a survey of 544 people. The work tries to find out which variables influence the consumer most in the purchase of a bottle of wine. We have obtained that the own experience as a consumer, the price and the opinion of other consumers influence more than the brand, advertising and the design of the bottle. On the other hand, we have not found evidence that the higher the consumer's income, the higher the price he or she will pay for a bottle of wine.

Keywords: Wine, preferences, survey

Acknowledgements: To my father Carmine for the passion he transmitted to me for the Economy, to my husband Daniel for the patience he has had during this time, to my mother Silvia because without her it would not have been possible, to Sonia and Toñi for their dedication to Juan, to Eva Lahoz, Samuel Diciembre, Ana Palau, Teresa Blasco and Andres Barahona for their contribution, to all those surveyed for giving up their time and data, to my tutor Nikos who has always solved my innumerable questions and finally to my son Juan who has given me the strength to finish what I started one day.

“What is impossible with man is possible with God.” (Luke 18:27)

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Introduction

The aim of this work is to find evidence to be able to affirm and recognize which variables affect the decision to buy a bottle of wine and not another bottle.

Spain has a deep-rooted culture in the production, distribution and consumption of wine, which is corroborated by the following research:

According to Song (2019) the distribution of Spanish wine crosses borders, a large recipient market for Spanish wine is the Chinese market. Spain exports more than 63,000,000 litres of wine to the Chinese market every year.

Researches such as Barrachina, F M have studied the food consumption patterns in Spain. In this work, the authors highlight that the Mediterranean diet is characterized by the consumption of olive oil, fresh products and red wine.

As stated by the Spanish wine federation, Spain has 969,000 hectares of vineyards, corresponding to 13% of the world total. The average annual production of wine and must is between 40 and 42 million hectolitres, in fact 44.4 million hectolitres were produced in Spain in 2018. A total of 6.5 billion euros are invoiced annually by Spanish wineries and the sector represents about 1% of Spain's GDP. In addition, wine exports are an important part of sales, last year more than 21 million hectolitres were exported. In fact, Spain is the world's leading wine exporter by volume.

Moreover Spain is the second country in the world in cork production. Cork extracted from cork oak is the most common material used as a stopper in wine bottles.

The wine market has a great economic repercussion in our country, for that reason it is necessary to study the variables that influence the consumer at the moment of choosing a wine and not another one.

The survey

To do this work I had several options, I could have done a literature review of the research done so far, I could have used a database and commented on the calculations of the data extracted or I could have done a survey and extracted my own data.

Of the three possibilities I chose the last option because obtaining the information from a primary source seemed much more interesting and was a motivation for me. That is, it was not strictly necessary to make a questionnaire but it did seem interesting to focus the work on this methodology of information extraction.

Many researches related to wine consumption have been carried out by means of data extraction by surveys such as the one carried out by Bernabeu (2002) and Atkin, T (2007).

And as defined by the RAE, the survey is the set of standardized questions addressed to a representative sample of social groups, to find out states of opinion or other issues that affect them. And this is precisely the aim of the survey.

The questionnaire I have prepared is an online survey created from the Google Forms tool. It is a free application that serves to create forms which collect information and can be downloaded in Google spreadsheet format, commonly known as Excel. The link to the questionnaire can be sent by email and as a link through social networks.

The questionnaire I have made up consists of eighteen questions. The survey was sent by social networks since taking into account the current situation of the pandemic was the recommended choice to obtain the information and was completed by a total of 544 people.

The survey is structured in three blocks of questions. The first block consists of four questions that refer to personal data of the respondent. The second block of questions refers to wine consumption: frequency, places, type of wine preferred and purchase prices. And the third block has questions referring to the variables that influence the decision to buy a bottle of wine.

Questions

In this section, the eighteen questions of the survey and the answers obtained by the 544 respondents are presented from a descriptive point of view.

The questionnaire seeks to find answers to questions such as: Is it true that people with higher incomes consume more expensive wines? Is there scientific evidence that people with lower incomes consume cheaper wine? Can we find scientific evidence that income and age are correlated? Would it be true to say that young people consume cheaper wines? What variables influence the choice of a wine and not another? All these questions were the ones that motivated the making of this survey. Being able to answer these questions gives us a competitive advantage because if we find evidence we can know who to target or how to diversify the market and thus improve it.

The first four questions are focused on the respondent. That's why the questions are about gender, age, marital status and annual income. They are questions to be able to create a profile and observe how people with certain characteristics consume wine.

The first question asks for the sex of the respondents and it has been obtained that 58% of the respondents are women and 42% men. In absolute numbers we would be talking about 316 women and 229 men.

In the second question, five age ranges are presented, as we can see in Figure 1 that the different age ranges are represented in percentages. 144 respondents representing 26% of the respondents are between 18 and 25 years old, 180 respondents representing 33% of the respondents are between 26 and 35 years old, 112 respondents representing 21% are between 36 and 50 years old, 101 respondents representing 19% are between 51 and 64 years old and 8 respondents representing 1% are over 65 years old.

Figure 1. Age range of respondents

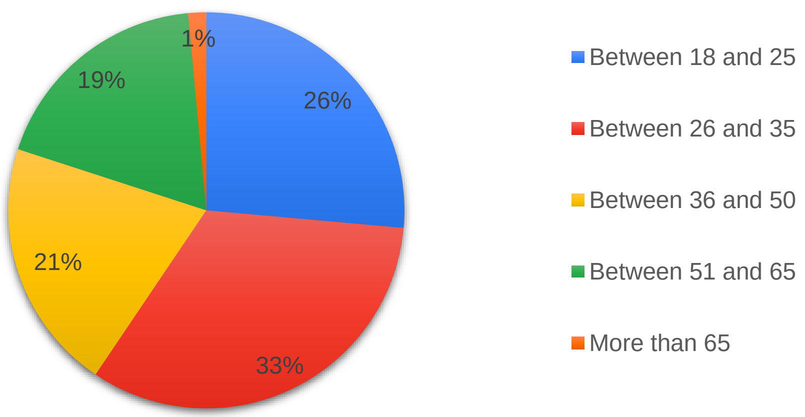


Figure 2 shows the third question in the survey asking for marital status. 47.5% of respondents are married, 46.6% are single, 4.8% are separated and 1.1% are widowed.

Figure 2. Marital status of respondents

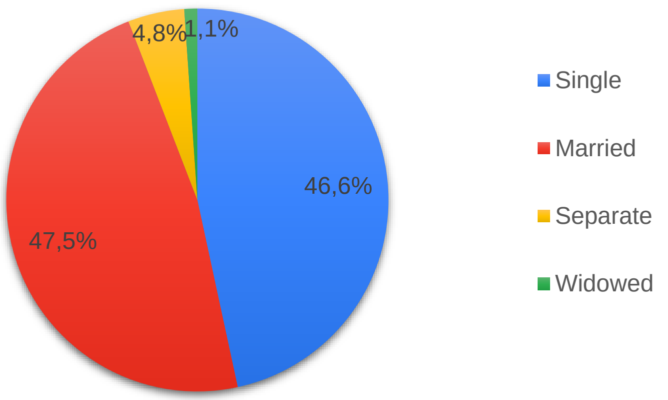
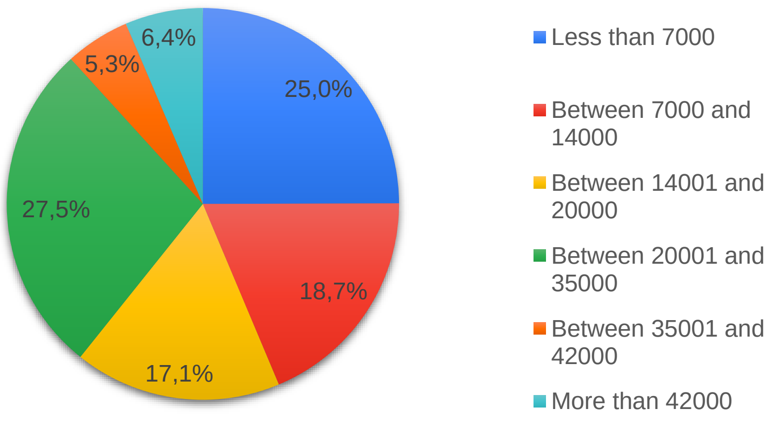


Figure 3 shows the different incomes of the respondents. In this question the respondent is asked to indicate the range represented by their annual net income in euros. 136 respondents representing 25% of the respondents claim to earn less than 7000 Euro net annually. 102 respondents representing 18.7% of respondents claim to earn between 7000 euros and 14000 euros per year. 93 respondents who represent 17.1% of those surveyed claim to earn between 14001 and 20000 euros net annually. 150 polled people, representing 27.5% of those polled, claim to earn between 20001 and 35000 Euros. 29 polled people that represent 5.3% of the polled people affirms to enter between 35001 and 42000 euros net annually and 35 polled people that represent 6.4% affirms receive more than 42000 euros net annually.

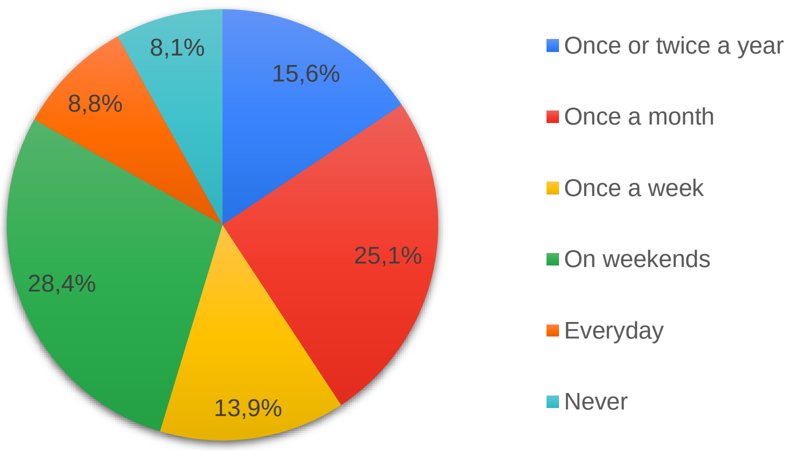
Figure 3. Annual net income in euros of respondents



The fifth question opens a block of questions on wine consumption. In this question, respondents are asked to identify the frequency of wine consumption, and they can choose from six frequency options, but only one. 15% of the respondents say that their wine consumption is very sporadic and they only drink wine once or twice a year. 25% of those surveyed say that they drink wine once a month. 13.9% of those surveyed consume wine once a week. 28.4% of those surveyed say they drink wine at weekends and 8.8% every day. The rest, 8.1% of those surveyed, do not drink wine.

We can conclude that more than 75% of the respondents consume with considerable frequency. Out of that 75% a 28% of people consume wine on weekends.

Figure 4. Wine consumption frequency



The sixth question asks them to identify the occasions when they consume wine. Different non-exclusive options appear, i.e. the same respondent could mark several options. The following results were obtained: 65% of the respondents consume wine at celebrations such as weddings and communions. Nearly 60% of those surveyed consume wine when going out to dinner at restaurants. 53.8% of those surveyed said that they drank wine at their friends' and family's homes. And 39% of those surveyed said that they drank wine in their own home. Finally, 8% of those surveyed said that they do not drink wine at all, which coincides with the previous figure of those who say that they never drink wine.

We can emphasize that according to the data obtained in the survey there is a higher percentage of those surveyed who consume wine at celebrations than in their own homes. We could say that those surveyed relate wine to celebrations and festivities and not so much to everyday life.

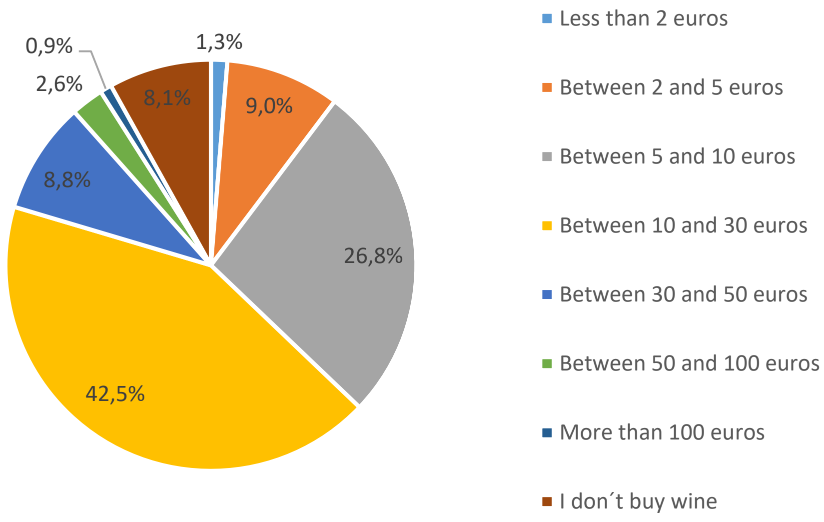
In the seventh question, we are asked to point out the types of wine that are bought most frequently. In this question the respondents could choose more than one wine as they may not have a unique preference and buy different types of wine with the same frequency. In fact, you can see from the results how many respondents have selected more than one answer. 59% of respondents buy red wine. 51% of respondents say they buy white wine. 6.8% buy rosé wine and 9.5% buy champagne. Therefore, according to those surveyed, the wine most chosen and bought is red wine followed by white.

The next question is the inverse of the previous one, as it asked to point out the wine you buy less frequently. And with the results of this question it confirms what was seen in the previous one, as more than 54.7% of those surveyed stated that the wine they buy least often is rosé, followed by cava.

The ninth question asks them to indicate the place where they usually buy the wine. Nearly 86% of those surveyed said they buy wine in supermarkets and physical stores and only 6.4% of those surveyed said they buy wine in online stores. Despite the efforts made by the wineries to create online stores and the fact that Internet purchases have increased exponentially in recent years, we see in the survey data how a very small percentage buys wine over the Internet, preferring in this case to purchase the product in physical establishments.

The tenth question asks consumers to indicate the maximum price paid for a bottle of wine in the last year. In the question, several price ranges appear so that the respondents can indicate only one option. As we can see in Figure 5, there are seven options ordered from lowest to highest value. 1.3% of those surveyed have chosen the first option that says they have paid a maximum of 2 euros for a bottle of wine in the last year. 9% of those surveyed said that they had spent a maximum of between 2 and 5 euros on a bottle of wine in the last year. 146 respondents, representing 26.8% of respondents, said that they had paid between 5 and 10 euros at most for a bottle of wine in the last year. 42.4% of those surveyed say that they have paid between 10 and 30 euros maximum for a bottle of wine in the last year. 8.8% of those surveyed said that they had paid between 30 and 50 euros for a bottle of wine at most in the last year. 2.6% of those surveyed have paid a maximum of between 50 and 100 euros for a bottle of wine in the last year. And less than 1% of those surveyed have paid more than 100 euros for a bottle of wine in the last year. Finally, 8.1% of those surveyed said they did not buy wine.

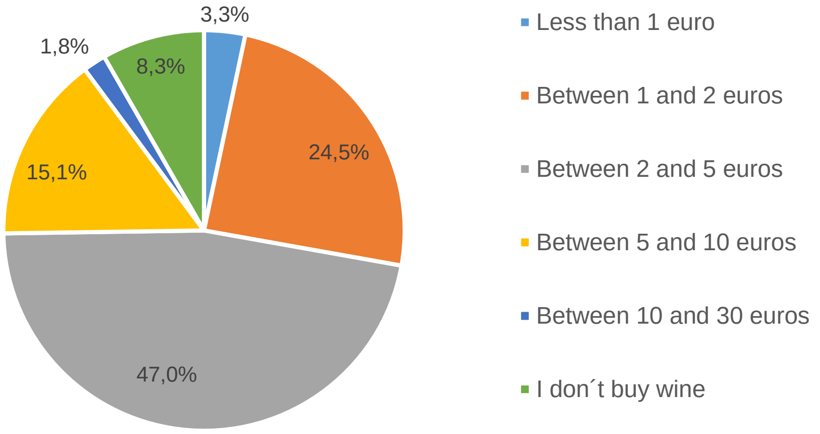
Figure 5. Maximum price paid for a bottle of wine in the last year in euros



The next question asks to point out the lowest price paid for a bottle of wine in the last year and specifies to the respondents that wine bought for cooking is not taken into account. Figure 6 shows the lowest prices paid in the last year by respondents for a bottle of wine. The data is distributed in six ranges. 3.3% of respondents said that they had bought a bottle of wine for less than 1 euro in the last year. 24.4% of those surveyed said that the lowest price paid for a bottle of wine in the last year was between 1 and 2 euros. 46.8% of those surveyed said that the lowest price paid for a bottle of wine in the last year was between 2 and 5 euros. 15% of those surveyed say that the lowest price paid for a bottle of wine in the last year has been between 5 and 10 euros. Finally, less than 2% of respondents said that the lowest price paid for a bottle of wine in the last year was between 10 and 30 euros. Finally, 8% do not buy wine.

We can highlight that more than 70% of the people surveyed have paid between 1 and 5 euros at least in the last year for a bottle of wine.

Figure 6. Lowest price paid for a bottle of wine in the last year in euros

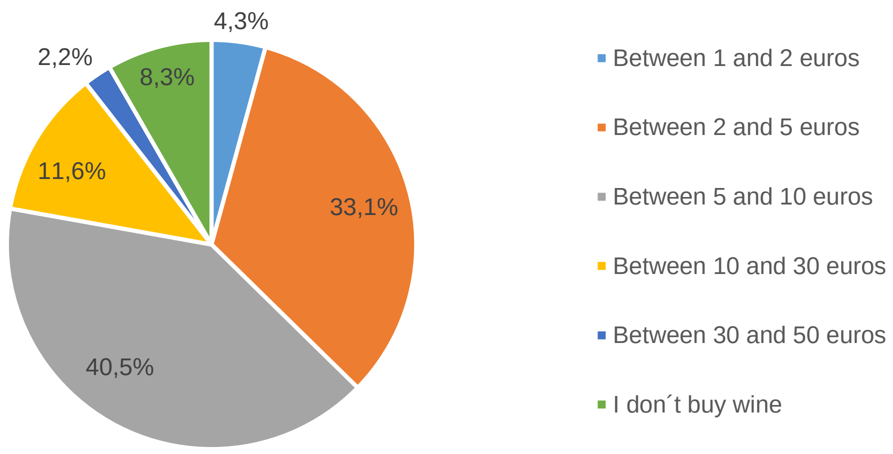


The twelfth question asks to point out the most frequent price paid for a bottle of wine in the last year. As in the previous questions, price ranges are given in euros and respondents can only choose one option. Figure 7 shows the distribution of the prices that respondents have most frequently paid for a bottle of wine in the last year.

No respondent has indicated as a frequent price to spend less than 1 euro. 4.2% of respondents said that they have frequently paid between 1 and 2 euros for a bottle of wine in the last year. 32.8% of those surveyed said that they had frequently paid between 2 and 5 euros per bottle of wine. 40% of those surveyed said that they had frequently paid between 5 and 10 euros for a bottle of wine. 11.6% of those surveyed said that they had often paid between 10 and 30 euros for a bottle of wine. And 2.2% of those surveyed said that they often paid between 30 and 50 euros for a bottle of wine. No respondent reported paying more than 50 euros for a bottle of wine on a regular basis.

We can emphasize that the most frequent price for 73% of the surveyed is between 2 and 10 euros.

Figure 7. Most frequent price paid for a bottle of wine in the last year

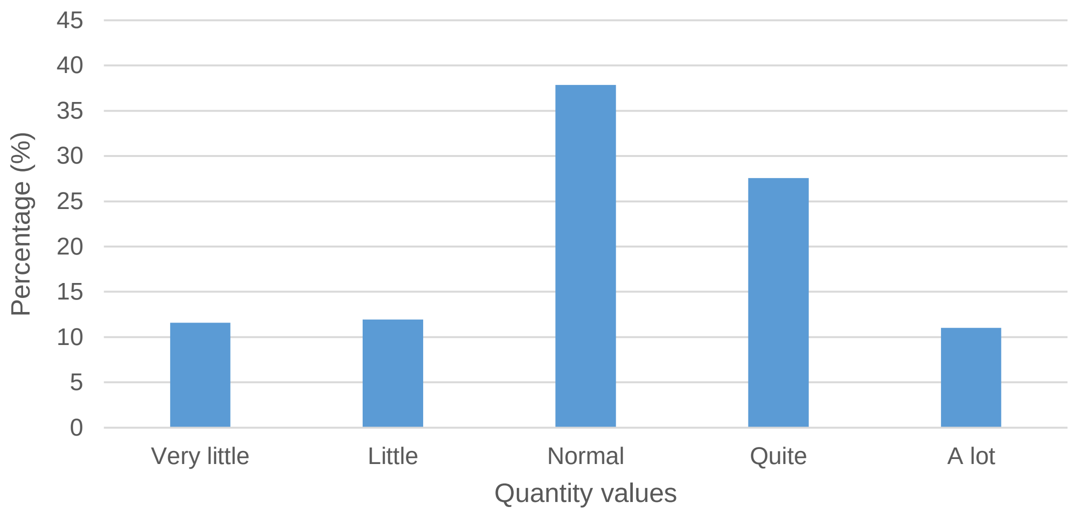


The third block of questions focuses on finding out how much certain factors influence the purchase of a bottle of wine. In this block of questions, the respondent is asked the following question: How much does each of the following factors influence the purchase of a wine? And then there are six factors to which the respondent has five options for answering, depending on the degree of influence the respondent has on the purchase of a bottle of wine. The choices are quantity adverbs that are ordered from lowest to highest degree of influence.

The first factor asked about is the certificate of origin. This denomination symbolise the quality and guarantee, that is, the excellent of the product and it depends on the vineyards and the place of origin where the grapes have been harvested. Will consumers consider the certificate of origin or only a group of exquisite experts are aware of the meaning of this title? Figure 8 shows the percentages of the answers concerning the certificate of origin.

According to the answers of the respondents, 22% say the certificate of origin affects them very little or not at all when they buy a wine, more than 37% say that the certificate of origin of the wine influences them in a normal way when they purchase a wine bottle, and more than 38% of the respondents say the certificate of origin influences them quite or a lot when they buy a bottle of wine.

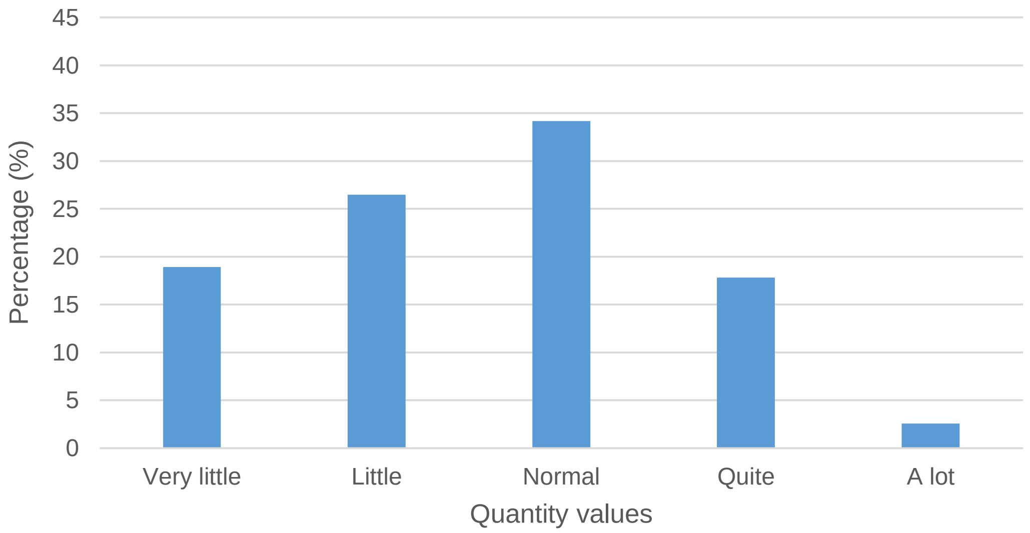
Figure 8. Certificate of origin



The second factor that respondents are asked about is the brand and advertising. Companies spend a lot of resources in advertising to make their brand known and to position themselves in the market. How does advertising affect consumers? Are they influenced by the brand of a wine? Is it a relevant variable to buy a bottle of wine?

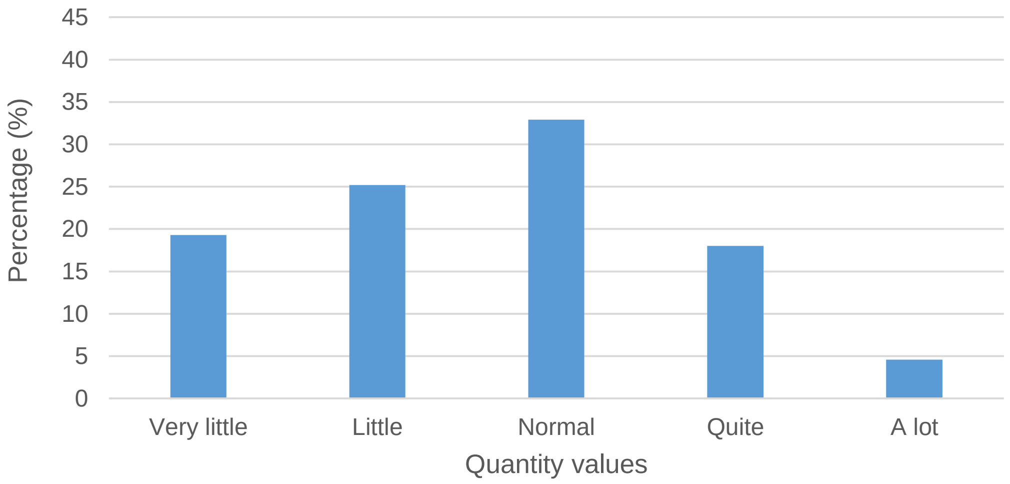
As it can be seen in Figure 9, more than 45% of those surveyed say they are influenced very little or not at all by the brand and advertising to buy a wine. 34% of the interviewed people say that they are normally influenced in their decision and about 21% of the interviewed people say that they are influenced quite or a lot by the brand and advertising of the wine to buy a bottle.

Figure 9. Branding and advertising



The third factor asked is the packaging, design and labelling of the wine bottles. The fact is that when someone is looking for a wine bottle in a shop wide bottle shelves are seen and there is always some wine that stands out because of the design of the bottle or the colour of its label. This question tries to quantify how much this aspect influences on the consumer. As it can be seen in the Figure 10, more than 44% of surveyed people say the packaging, design and labelling of wine bottle have little or no influence on their decision to buy it. Nearly 33% of the respondents say they are influenced at a medium level and a little more than 22% of the respondents say they are influenced quite or a lot by the packaging, design and labelling factor when choosing a bottle of wine.

Figure 10. Packaging, design and labelling

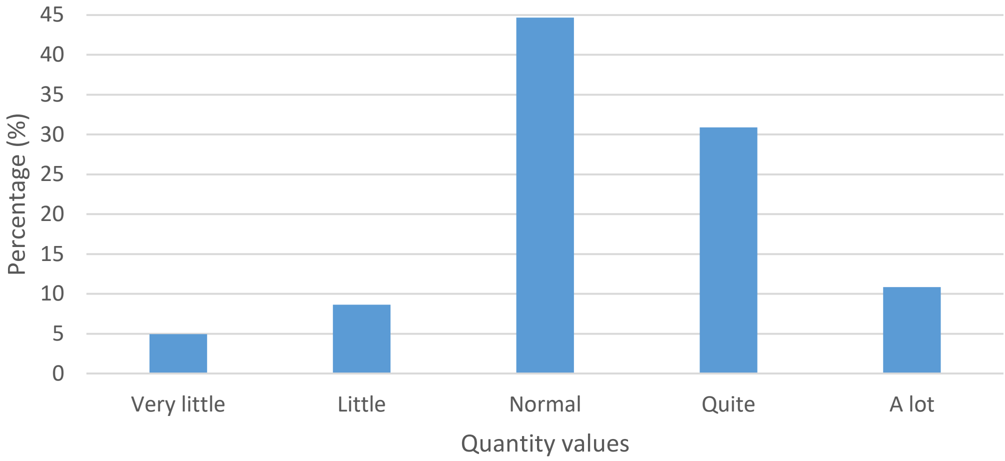


The fourth factor in the survey is the price. Other questions also ask respondents for price information as in previous questions asking for maximum, minimum and most frequent price. However, this question asks respondents to point out how much price affects them as an influential factor when choosing a bottle of wine.

As it is shown in Figure 11, a little more than 13% of respondents say the price of buying a bottle of wine has little or no influence on them. Nearly 45% of the respondents say that the price factor influence them in a normal way. And almost 42% of those surveyed say they are influenced a lot by the price when they buy wine.

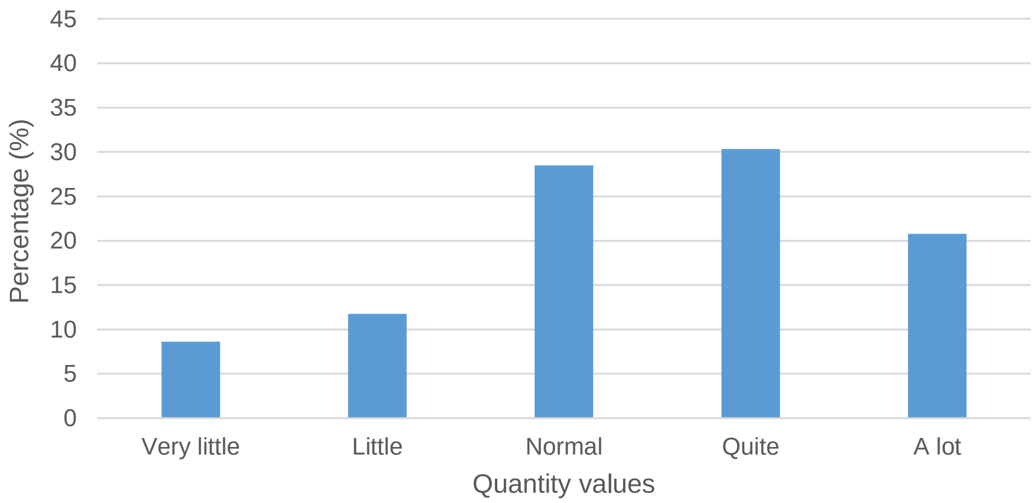
It can be seen that about 87% of the respondents say the price factor influences them in the purchase of a bottle of wine.

Figure 11. Price



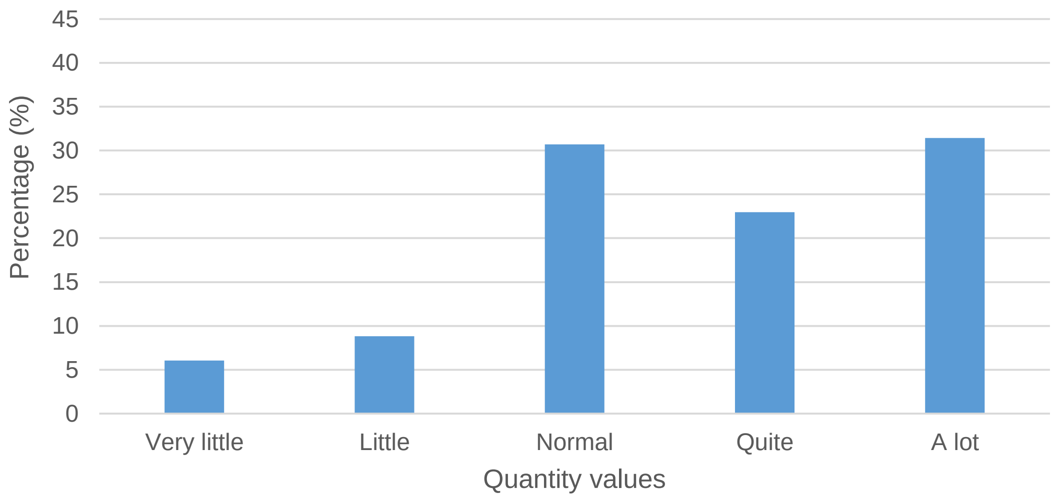
The fifth factor that respondents are asked about is the influence that the opinion of other consumers such as friends, family, experts or comments that can be found on the Internet can have on them. This factor tries to measure the influence of "word of mouth". How much will this factor affect the purchase of a bottle of wine? Will it be a relevant factor according to the respondents? Figure 12 shows the answers of the respondents. A little more than 20% of the respondents say the opinion of a third party does not influence them in the purchase of wine. 28.5% of surveyed people say they are normally influenced by the opinion of other consumers and more than half of those surveyed say that they are influenced a lot by the opinion of other consumers when buying a bottle of wine.

Figure 12. Opinion of other consumers



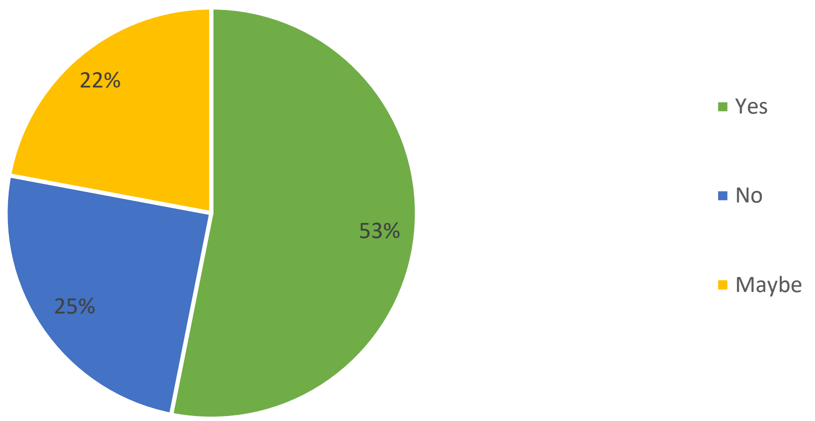
The last factor that respondents are asked about is their own experience as a consumer. Figure 13 shows the results of the respondents' answers. 14.8% say their own experience had little influence on their purchase of a bottle of wine. 30.6% say their own experience as a consumer normally influenced them and 54.4% of the respondents say that their own experience influenced them quite or a lot. In other words, it can be declared that 85% of the respondents have been influenced on their own experience as a consumer to buy a bottle of wine. That is, 85% of the respondents say that they are influenced in their new purchase by the wine they have tasted before.

Figure 13. Own experience



The fourteenth question asks the respondent to assess whether their social and cultural context encourages them to consume wine. Figure 14 shows the answers of the respondents. The 53.1% of surveyed people believe their context incite them to wine consumption, 22.1% of interviewed people answer that it might influence on the wine consumption and only 24.8% answer that they do not believe their context foment wine consumption. It is evidence that people are aware that the tradition and cultural context influence people on wine consumption.

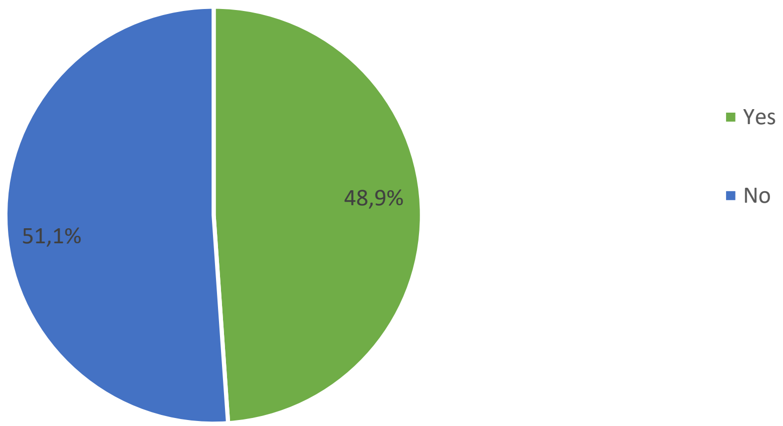
Figure 14. Do you think the social and cultural context influences your wine consumption?



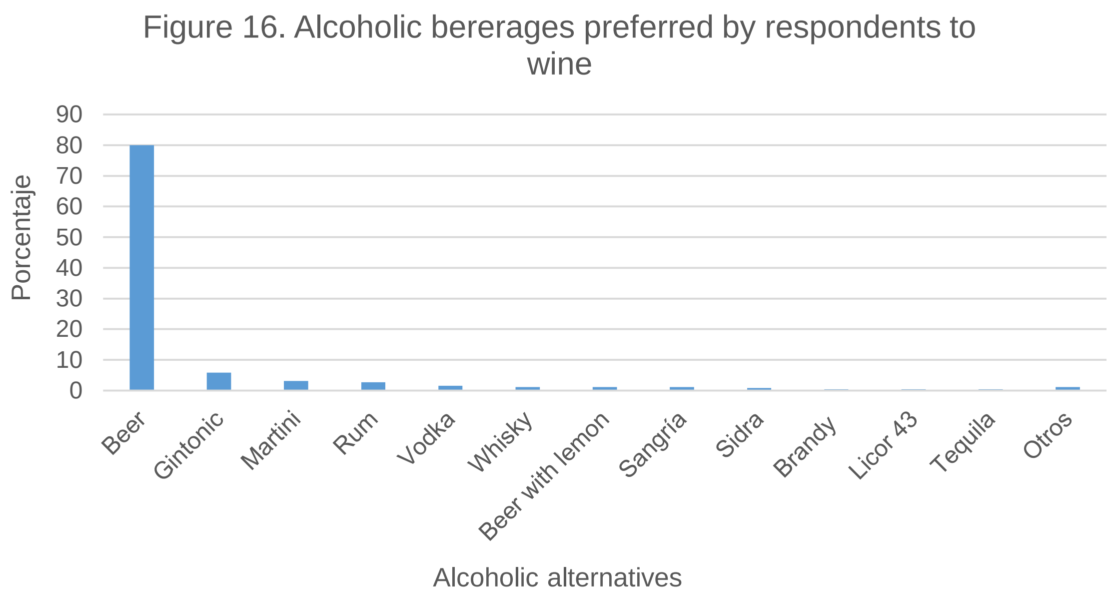
The fifteenth question is about the possibility of a substitute product for wine. As it has been seen in the first questions, 8% of the respondents say they do not consume wine and 15% say they consume wine once or twice a year. These respondents may not consume alcoholic beverages or may have a preference for another alcoholic beverage.

Figure 15 shows the respondents' responses to the following question: “Do you have a preference over other alcoholic beverage?” 51% percent of respondents say they don´t, so they prefer wine or no alcoholic beverages. On the other hand, 49% of respondents say they have a preference for another alcoholic beverage over wine. This means that the first choice of alcoholic beverage of almost half of the respondents would not be wine.

Figure 15. Do you have a preference over other alcoholic beverages?



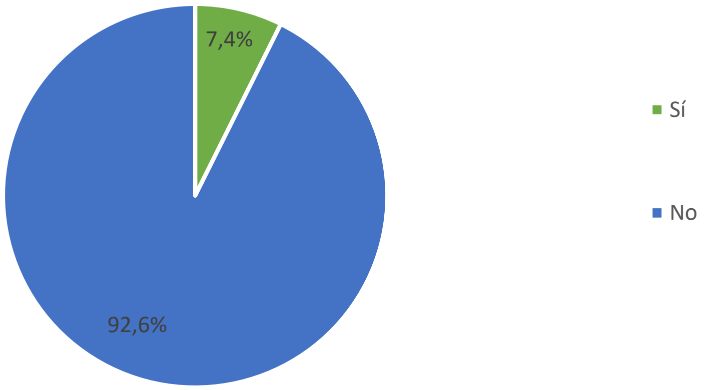
The sixteenth question is addressed to those respondents who answered that they had a preference for another alcoholic beverage in the previous question. In this question they are asked to write down which alcoholic beverage they prefer to drink instead of wine. Figure 16 shows the answers where it can be seen that a very high percentage, specifically 80%, prefer beer as an alternative alcoholic drink, followed by 5.8% who prefer gin and tonic, 3% Martini and 2.7% rum.



The last two questions are related to life and the new normality after Covid-19 and the possible repercussions after confinement.

The question asks respondents to think about whether they think their wine consumption preferences will change after the pandemic. Figure 17 shows the responses of the respondents More than 92% of the respondents answered that they do not believe that their preferences will change and only 7% of the respondents believe their wine consumption preferences will change.

Figure 17. Will your wine consumption preferences change after the pandemic?



The last question posed by the questionnaire asks respondents to indicate the aspects that will change in order to consume wine after the Covid-19 pandemic. To which 38% answered that what will change is the place of consumption. This answer might be due to the fact that the survey was answered we were confined and the future perspectives were uncertain, 25% said the price would be the aspect that will change after the pandemic. This answer might be motivated by the economic distrust and the fear of entering into a new economic crisis. Therefore, the consumer might think in increasing their savings, 24% said that the company will change, this answer might be motivated by the social distancing necessary for the eradication of the virus. There are other aspects that have also been pointed out by polled people, but in a lesser percentage. They are the frequency with 6%, the amount with 4% and 3% of interviewed people say that nothing will change when it comes to consuming wine.

The place to buy the wine has barely been selected by surveyed people due to the fact the establishments that remained opened during the confinement have been those that sold basic necessities where wine is sold.

Variables

This work aims to find factors that influence the purchase of a bottle of wine. These factors can also be called variables. In this section we will describe each one of the chosen variables, we will explain how we have measured them, we will describe the results obtained and finally we will put them in order from more to less influence.

The variables that I have analysed through the survey are the following ones: the certificate of origin, the brand and advertising, the packaging, design and labelling, the price, the opinion of other consumers such as friends, family, experts or comments on the Internet and finally the opinion itself through the experience as a consumer.

Each of the variables chosen and their relationship with the wine market will be explained below.

Certificate of Origin:

In 1932 Spain defined in a pioneering way the quality parameters to delimit specific production areas with the Wine Statute.

In 1992 the European Community created systems for the protection and valuation of quality foods to defend and promote this type of product. The protection system has three scales:

Protected designation of origin known by the acronym DOP, which represents the name of a region or a specific area used to name an agricultural product or foodstuff that is produced or processed in that area and that presents a quality or characteristics that are derived from the geographical environment in which it is obtained (Sainz, 2002)

Protected geographical indication (PGI) refers to a specific region or area used to describe an agricultural product or foodstuff with a recognised reputation that can be linked to the place of origin where at least the production, processing or preparation has taken place. (Sainz, 2002)

Traditional Speciality Guaranteed (TSG) are agricultural products or foodstuffs with unique characteristics that distinguish them from similar products, either because of the use of traditional raw materials or their traditional presentations or because of the use of traditional production and/or processing methods (Sainz, 2002)

According to Sainz (2002) in Spain, Rioja wine is the most consumed quality wine with 22.3% of the total, followed by cava (12.2%), wines from La Mancha (8.8%), those from Valdepeñas (7.1%), Penedés (4.3%) and Ribera del Duero (3.2%).

Brand and advertising

This variable aims to measure how much the advertising invested in the product influences the fact that it is a wine known by its brand and that the consumer, on recognizing the product by its brand and by the advertising, wants to acquire it. Cerviño (2012) points out that the implementation of marketing strategies aimed at marketing, communication and branding in the global wine industry has been sophisticated and significant over the last two decades. The case of Spain stands out because, despite having high quality products, it has an unclear and poorly positioned image abroad. Cerviño (2012) adds that the possible cause of the problem would be the difference in the importance of the designation of origin and a lack of commercial and brand orientation of Spanish wineries.

According to what Cerviño (2012) describes, it can be concluded that in Spain we give greater importance to the appellation of origin than to the wine brand, although this is not the case in the foreign market.

Packaging, design and labelling

The different elements that make up the wine bottles are the cork, the capsule, the labels, the back label and the collar. In each and every one of these elements, the brand that commercializes it is represented. (Moyano, 2003)

The bottle itself has a double function. On the one hand, the shape is associated with one type of wine or another, and on the other hand, it is the function it fulfils. When using green, amber or blue glass, it protects the contents from light. When the glass is transparent like those used in rosé or white wines the container highlights its content.

The label and back label are the most personalized and individualized elements by the winery manufacturer. The designs of the labels are adapted to the chosen fashions and graphics.

Price

The price is formed by the cost of the article plus the margin and it is translated in the monetary amount that the client has to pay for a product but it is not only that but it is also a variable that transmits relevant information to the potential consumer like information about the establishment, the product itself, the other products, the brands, etc...

Price is a very complex variable and there are numerous theories, calculations and strategies that study this variable as described by Rondán (2002) in his doctoral thesis.

These strategies can be used to differentiate from competitors and target a particular market.

What other consumers say

This variable is oriented to comments and opinions of other consumers who are close and known to us, such as family and friends, but it also takes into account comments and opinions of other unknown consumers, such as comments found in blogs, chats or social networks. It is true that if we look for comments on a product on the Internet we can find everything from blogs to influencers in social networks talking about all the products that interest you, but as Eliashberg, J (1997) already studied film critics in which he questioned whether they were influential or predictive, in the same way today we can ask ourselves the same question with the opinions of third parties on the net. While we can trust the opinion of a person close to us, but should we have the same faith in comments on the Internet that we do not even know who wrote them? The truth is that in a person close to us we know if he has a personal interest, but by not knowing who is behind certain comments, we do not know if it is a person who has an economic interest in you buying the product he is talking about. If that were the case he loses all credibility in his comment.

Your own opinion as a consumer

In so many occasions that you are in front of the wine shelf and you don't know which one to choose, you stop to think if you have tried it and how was your experience, because this variable depends on having been a wine consumer before. That is to say, this variable has to do with having tasted a wine and for its aroma, taste, texture and the different nuances of the wine provoke in you a pleasure and when you return to the establishment you wish to acquire it again for the experience of pleasure that it produced.

This variable is totally subjective and personal, it is the link created between the consumer and the product.

To measure these six variables, we have used five options that correspond to five adverbs of quantity: very little, little, normal, quite and a lot.

When carrying out the survey, it was thought that having such a deep-rooted culture of wine production, consumption and distribution could affect wine consumption in a positive way. Therefore, this variable has been included under the name of social or cultural context.

A possible formula for this would be the following:

Wine bottle choice = f (D.O, B, Pa, P, Oc, O, Cs)

Table 1 shows the percentages obtained for each variable. The percentages are divided into three columns. Each column is ordered with the quantity adverbs that have been used in the survey for these variables. In the table we see only three columns since the first two quantity adverbs that correspond to the first two options that the respondents had have been joined in the first column. Similarly, the last two adverbs corresponding to the last two options were joined in the third column. In the first column found the sum of the percentages of the option very little and little. In the second column, the percentages corresponding to the normal option and in the third column are the sum of the percentages of quite and a lot.

In the rows we find the six variables ordered according to the order in which they appeared in the survey.

Based on the data in table 1 extracted from the survey carried out, we can say that more than 76% of those surveyed stated that the designation of origin factor affects them normally, quite or a lot.

The brand and advertising variable affects 45% of those surveyed very little or not at all and the packaging, design and labelling variable affects 44% of those surveyed very little or not at all.

More than 86% of respondents say that the price factor affects them normally, quite or a lot.

The opinion variable of other consumers such as friends, family, experts or internet comments influences 79% of the respondents normally, quite or very much. And more than 85% of respondents say that their own consumer experience variable influences them normally, quite or a lot.

Analyzing this data we can conclude that the variables that most influence consumers according to the respondents are designation of origin, price, other consumers' opinion and own experience as a consumer.

And of the variables we have analysed, those that influence consumers the least according to those surveyed are brand and advertising and packaging, bottle design and labelling.

If we rank the variables from most to least influence for the purchase of a bottle of wine according to the respondents it would remain as:

1. Own experience as a consumer
2. Price
3. Other consumers' opinion
4. Designation of origin
5. Branding and advertising
6. Packaging, design and labelling

Table 1. Percentages of influence of the variables

	VL + L	N	Q + A lot	N+ Q +A
Designation of origin	23,53	37,87	38,60	76,47
Brand and advertising	45,40	34,19	20,40	54,60
Packaging, desing and labelling	44,49	32,90	22,61	55,51
Price	13,60	44,67	41,73	86,40
Opinion of other consumers	20,40	28,49	51,10	79,60
Own experience	14,89	30,70	54,41	85,11
Mean	27,05	34,80	38,14	

As shown in figure 14, according to 53% of the respondents the social context is a variable that can also influence the purchase and consumption of wine, 22% say that it may be a variable that influences and 24.8% believe that the social and cultural context is not an influential variable in wine consumption.

You can also analyze the variables that affect the price. The price can be determined by other more personal factors of the consumer such as income, age, sex or marital status.

The formula proposed is as follows:

$$\text{Price} = I + A + S + Ms$$

When we talk about the income variable at work, we will use the annual net income values in euros obtained from the survey. Six income ranges appear and the average of each range has been used to make the calculations.

The age variable in the survey has been divided into five ranges, but in order to make calculations with this data, the average value of each range has been taken.

For the sex variable, the two biological sexes have been taken into account.

And for the marital status variable there were four possibilities: single, married, separated and widowed.

On these variables we expect to find evidence of positive correlations, such as the fact that the higher the income, the higher the price of the bottle of wine, or the higher the age, the higher the price of the bottle of wine. On sex and marital status we will also calculate if there is evidence of correlation.

Other possible variables that affect the price that we have not included are the savings factor that would have an inverse correlation, that is, the more savings the consumer wants to have, the lower the price of the wine could be.

Results

This section shows the results of the correlation coefficient calculations made between some variables that can affect the price variable. Using the data obtained in the survey and using a spreadsheet as a tool, the correlation coefficient between the responder's income, age, sex and marital status variable and the price frequently paid has been calculated. The four variables mentioned above have been chosen in the belief that they can affect the price variable and in some way be directly correlated. We recall the formula we have proposed:

$$Price = I + A + S + Ms$$

First, the correlation coefficient between income and the price frequently paid has been calculated. In the calculations mentioned for the variable income, data on annual net income have been used. On the other hand, those respondents who said that they do not consume wine have been omitted. With this calculation, it is expected that a direct correlation will be found between net income and the price frequently paid. The correlation coefficient obtained after the calculation is 0.012, this value means that there is no scientific evidence that income is related to the purchase price of a bottle of wine. In other words, it cannot be said that the higher the annual income, the higher the price of the bottle of wine that the consumer buys.

However, calculating the averages of the prices frequently paid according to the range of annual net income, we find that respondents with an income below 7000 euros per year pay on average 10.22 euros per bottle of wine as a frequent price, respondents with an income range between 7000 and 14000 euros per year pay on average 6.5 euros per bottle of wine as a frequent price, and respondents with an income range between 14001 and 20000 pay on average 6 euros per bottle of wine as a frequent price, 6.81 euros for a bottle of wine, respondents with an income range between 20001 and 35000 pay on average as a frequent price 7.82 euros for a bottle of wine, respondents with an income range between 35001 and 42000 pay on average as a frequent price 7.94 euros for a bottle of wine and finally respondents with an income above 42000 pay on average as a frequent price 10.57 euros for a bottle of wine.

Secondly, the correlation coefficient between the frequent price and the age of the respondents has been calculated to find out if there is a correlation between these variables.

The correlation coefficient is -0.117, this value is not significant and means that there is no scientific evidence that age and frequent price are correlated.

This result means that there is no scientific evidence that the older the person is, the higher the price is frequently paid.

Calculating the average price frequently paid according to the age range we find that respondents between 18 and 25 years old spend on average as a frequent price 9.64 euros for a bottle of wine, respondents between 26 and 35 years old spend on average as a frequent price 7.73 euros for a bottle of wine, respondents between 36 and 50 years old spend on average as a frequent price 8.6 euros for a bottle of wine, respondents between 51 and 65 years old spend on average as a frequent price 6.8 euros for a bottle of wine and finally respondents over 65 years old spend on average 3.5 euros as a frequent price for a bottle of wine.

Thirdly, the correlation coefficient between the sex of the surveyed persons and the price frequently paid by them has been calculated. The value obtained is 0.0015 which means that there is no evidence of direct correlation between both variables. Therefore, we cannot state that according to the sex of the respondent a different amount is spent than the other sex. In fact, calculating the average of the price frequently paid for a bottle of wine in men, an average price of 8.12 euros per bottle of wine is obtained and women spend an average of 8.14 euros per bottle of wine, these data evidence the proximity between sexes. In addition, the ranges of prices frequently paid in men and women have been separated and the percentages are very similar. However, we found a significant difference and that is that 10% of the women surveyed do not buy wine while only 6% of the men surveyed do not buy wine.

We also calculated the correlation coefficient between marital status and the price frequently paid, looking to see if there is a direct relationship between these variables. The correlation coefficient gives -0.09. This value means that there is no scientific evidence that the marital status of the consumer directly affects the price frequently paid for a bottle of wine. Nevertheless, calculating the average price frequently paid according to marital status, the following data has been found:

Single people pay on average 8.88 euros for a bottle of wine, married people 7.60 euros, separated people 7.68 euros and widowers 5.1 euros.

Furthermore, the correlation coefficient between the age of the surveyed person and the income has been calculated, where the value obtained is 0.46 and this value means that there is scientific evidence of a moderate positive correlation between the income and age variables, that is, we can state that the older the surveyed person is, the higher his or her income increases and the younger, the lower income.

On the other hand, we have worked with the data of those respondents who claim not to buy wine. 8% of those surveyed said that they did not buy wine and of that 8% almost 70% were women.

According to the income that the respondents have claimed to have, those who say they do not buy wine have been separated as shown in table 2. From these data we can say that of the 135 respondents who claim to charge less than 7000 euros net per year, 17.8% do not buy wine. Of the 102 people surveyed who claim to earn between 7,000 and 14,000 euros per year, 7.8% do not buy wine. Of the 93 people surveyed who claim to charge between 14001 and 20000 euros per year, 9.6% do not buy wine. Of the 150 people surveyed who claim to earn between 20001 and 35000 euros per year, 3.3% do not buy wine. None of the 29 respondents who charge between 35001 and 42000 euros per year answered in the survey that they do not buy wine. Finally, none of the 35 respondents who claimed to charge more than 42,000 euros per year said that they did not buy wine. We see how those surveyed who have an income of less than 7000 euros per year are the group with the highest percentage of people who do not buy wine. And the ranges with the highest annual income do not present any case of respondents who have claimed not to consume wine.

Table 2. Distribution of wine buyers and non-buyers according to annual net income

	Less than 7000	Between 7000 and 14000	Between 14001 and 20000	Between 20001 and 35000	Between 35001 and 42000	More than 42000
Buy wine	111	94	84	145	29	34
% buy wine of the total	82,22 %	92,16 %	90,32 %	96,67 %	100 %	100 %
Do not buy wine	24	8	9	5	0	0
% don´t buy wine of the total	17,78 %	7,84	9,68 %	3,33 %	0 %	0 %
Total	135	102	93	150	29	34

In the same way that we have seen in table 2 the data of respondents who do not buy wine according to their annual net income, we can now see in table 3 the percentages of respondents who do not buy wine according to their age range.

Table 3. Distribution of wine buyers and non-buyers by age range

	Between 18 and 25 years old	Between 26 and 35 years old	Between 36 and 50 years old	Between 51 and 65 years old	More than 65 years old
Buy wine	119	169	106	98	6
% buy wine of the total	83,22	93,89	94,64	97,03	75
Do not buy wine	24	11	6	3	2
% don´t buy wine of the total	16,78 %	6,11 %	5,36 %	2,97 %	25 %
Total	143	180	112	101	8

In table 3 we can see how 16.78% of those surveyed between 18 and 25 years old do not buy wine, this figure is far from the rest of the ages. We find that 6.11% of those surveyed between 26 and 35 years old do not buy wine and 5.36% of those surveyed between 36 and 50 years old say they do not buy wine. The lowest percentage was found among those between 51 and 65 years old, who only 2.97% said they did not buy wine. However, 25% of those surveyed over 65 years old stated that they do not buy wine.

Conclusions

Using the data provided by the 544 respondents, we were able to rank the variables that affect the purchase of a bottle of wine from most to least influential. We have obtained that the variable with the greatest influence for those surveyed is their own opinion as a wine consumer, followed by the price and, in third place, the opinion variable of other consumers. In fourth place is the variable denomination of origin to which the respondents give greater influence than the brand and advertising and the packaging, design and labelling. These last two variables were ranked fifth and sixth respectively.

Respondents highlight the social and cultural context factor as an influential factor in wine consumption. In addition, the respondents indicated that they consumed wine at celebrations and on weekends in greater percentage than in their homes, so we can conclude that the respondents relate wine consumption to festivities.

92% of those surveyed do not believe that their wine consumption preferences will change after the Covid-19 pandemic but they do add that possible changes are related to the place of consumption, price and company. These responses could be motivated by the necessary hygiene measures and the social distance required in the de-escalation phases. On the other hand, the fear of a new economic crisis could raise savings rates so that consumers might decide to pay less for a bottle of wine.

8% of those surveyed neither buy nor consume wine, of which 70% are women.

On the other hand, the data obtained from the survey has also been used to look for correlations between some variables and the price frequently paid for a bottle of wine to find out if there is a direct relationship. It has been obtained that there is no scientific evidence of a direct correlation between the annual net income of the consumer and the price frequently paid for a bottle of wine, nor is there any scientific evidence of a direct correlation between the age of the consumer and the price frequently paid for a bottle of wine. There is also no scientific evidence of a positive correlation between the gender of the consumer and the price frequently paid for a bottle of wine. Finally, there is also no scientific evidence of a positive correlation between marital status and the price frequently paid for a bottle of wine.

If we find a moderate positive correlation between the consumer's income and his or her age, this means that the older the respondents, the higher their income.

Finally, we found a higher percentage of respondents who do not consume wine among those who claim to have an income of less than 7000 euros per year and depending on age we found that those over 65 and young people between 18 and 25 years have higher percentages of not buying wine.

Some variables that we have not taken into account are the savings rate that the consumer has, that is, as the consumer saves more he or she wants to spend less on products, so it would also affect the purchase of wine.

Another factor that has not been taken into account in this survey is oenological training, that is, it is possible that the purchase price of a bottle of wine varies according to the consumer's knowledge of wine.

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