# The Influence of Social Networks on the Purchasing Behavior of Wine Consumers in Portugal

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**Abstract:** The present study was developed to understand the consumer's perception of purchasing wine online, verify whether Social Networks are a good source of information about wine, identify the main sources of information that consumers use to search, and finally assess the importance of Social Networks for SMEs in the wine sector. As a methodological approach, we implemented qualitative and quantitative research, including an in-depth interview with a marketing professional from a company in the wine sector, providing valuable insights into how they manage their brands and the challenges faced by the company in the digital scenario. We also prepared an online questionnaire survey, which investigated the purchasing and consumption behavior of buyers and consumers of Portuguese wines. The conclusions of this study presented significant practical implications for companies in the wine sector in Portugal. Therefore, we also see that these companies will be able to add efficiency to their digital marketing strategies, promoting their products in a more targeted and engaging way. In a complementary way, by recognizing the crucial role of Social Networks, companies will be able to establish a stronger and more authentic digital presence, building solid relationships with consumers.

Keywords: Social networks, Consumer behavior, Wine sector, Social media marketing

### 1. Introduction

Companies are increasingly using the Internet for commercial activities. With the ability to expand geographic borders by bringing buyers and sellers together, the Internet also allows small companies to compete with industry giants. In fact, the Internet has transformed marketing with its instant yet personalized reach to a global audience.

When analyzing the wine sector in Portugal, the Wine Digital Engagement Index 2019 found that it is a sector with a lot of potential for development in the digital world. Despite the efforts of some producers to keep up with digital trends, there is still a great lack of knowledge on the part of SMEs about how to attract consumers who do not go to traditional stores, but who, instead, research, exchange opinions and buy products online.

Wine has played an important role in society since the earliest times of civilization. It is believed that the first vine was cultivated in the Iberian Peninsula around 2000 years before Christ, by the Tartessians, one of the oldest people on this Peninsula (Instituto da Vinha e do Vinho, 2014).

Consumers are regularly faced with different purchasing decisions, and these decisions are not all made in the same way, some are more complex, require greater effort from the consumer and others are more routine decisions, where the effort required is less ( Barber et al., 2009).

In this context, this research aims to demonstrate the importance of Social Networks for the wine consumer, taking as its research question the starting question: "What influence can Social Networks have on the purchasing and consumption behavior of the wine consumer in Portugal?

The general objective is to understand the consumer's perception of purchasing wine online and the specific objectives are: to identify the factors that influence the purchase of wine online; check whether Social Networks are a good source of information and persuasion about wine; identify the main touchpoints that consumers use to research wines; evaluate the importance of Social Networks for an SME in the wine sector.

Based on the objectives outlined in this study, and mentioned previously, the following hypotheses were defined:

H1: Wine buyers/consumers, when choosing a wine brand, are more influenced by wine websites and blogs than by Social Networks;

H2: Social media is not a good source of information about wine;

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H3: A friend's recommendation has more influence than Social Networks when purchasing wine;

H4: The Social Networks most used by wine consumers/buyers are Facebook, Instagram and WhatsApp, and the communication strategies with the most impact are stories/reels.

#### 2. Theoretical Framework

#### 2.1 Online Social Networks

Consumers interact with each other and the way in which consumers share information about products, as well as purchasing and consuming those same products, has changed significantly (Skiera, 2010). Social media is one of the most popular activities in today's online world, becoming a massive social phenomenon (Laudon & Traver, 2013). (Recuero et al., 2015) reveal the importance of studying networks when they say that understanding the world through networks has become of great importance as it involves billions of people around the world.

In this context, Social Networks offer great opportunities for all companies, from the smallest and most recent to the oldest and most traditional, to have a presence on Social Networks, as the more connected an organization is on the network, the greater the benefits that can be obtained with it. the use of Web 2.0 tools, especially for small businesses, which use this convenient and low-cost tool for the main purpose of exposure (Gamboa & Gonçalves, 2014).

According to (Kempe et al., 2005) Social Networks are manifestations of relationships and interactions between individuals in each group and play an important role as a means of disseminating information, ideas, and influence. Social Network sites are a type of virtual community (Murray & Weller, 2007). A virtual community consists of a group of people who communicate online. Social Networks are, therefore, a collection of actors (individuals) and their connections. In cyberspace, these networks are complex due to the creation of a new social space, the virtual space (Recuero, 2007).

According to data from the statistics report (Digital, 2023) regarding the adoption of digital media and Social Networks, the Portuguese have become increasingly accustomed to modernization in recent years. According to the same source, Portugal has around 10.26 million inhabitants, of which 8.73 million are Internet users (85.1%) and 8.05 million are active users of Social Networks (78.5% of the population). In this sense, wine consumers increasingly depend on information obtained via the Internet from wine influencers, producers or regular customers sharing their experiences to improve their understanding of wines (Pérez-Rodríguez et al., 2022). Leigon (2011) states that social media platforms encourage wine consumption, allowing users to exchange knowledge and encourage others to try different wines.

# 2.2 The Importance of Social Media for the Business Development of SMEs

Social media offers a unique method of marketing communication (Eagleman, 2013). By managing user-generated content, companies can predict their customers' purchasing behavior more accurately, increase brand post popularity, attract new customers, raise awareness, increase sales, and build loyalty (Castronovo & Huang, 2012)

The role of social media in business, particularly commerce, has become increasingly significant in recent years. This is evident in the growing number of individuals who use Social Networks to purchase products and/or services and share their experience with other consumers/clients or friends during and after their consumption/use. Therefore, it is no surprise that social media is considered the most important innovative medium (Hunjet et al., 2019). Thus, small family wineries have employed a variety of innovative approaches to remain economically sustainable in the very competitive tourism market (Baggio & Valeri, 2020; Karagiannis & Metaxas, 2020; Valeri & Katsoni, 2021). Examples of this are success in wine tourism and regions and wineries that regularly use "collaborative marketing techniques" (wine trails, wine festivals) to grow (Berghoef & Dodds, 2016).

### 2.3 Wine Consumer Behavior

The wine sector has adjusted to and is interested in sustainability issues (environmental, social, economic and institutional), and has invested in the development of programs and dissemination of sustainable practices and their dissemination as important marketing tools for the differentiation and acceptance of products. and brands on the market (Sillani et al., 2017).

In recent literature on wines, one of the issues of great interest is knowledge about the behavior of young consumers. This is not only because they represent an important target market, but also because of their ability to create trends and enhance impact on the wine market in the future (Castellini & Samoggia, 2018). This indicates that it is essential to delve deeper into the effect of age on wine consumption decisions, resulting from the influence of biological processes throughout a person's life cycle. However, it is not just age that can be a determining factor in the behavior of young consumers in relation to older ones, as the effects of the period, time or context in which an individual lives can also determine consumption patterns (Rodriguez et al. 2021). In other words, wine tourism, as part of the tourism industry, is information intensive; therefore, it is essential to understand changes in technologies, such as the adoption of social media (Valeri & Baggio, 2020). Social media tools allow companies to reach current and potential customers effectively and budget wisely (Kallmuenzer et al., 2018).

Regarding purchasing wine online, wine is among the most popular alcoholic beverages ordered online (Kohli, 2022). We can see that, although in 2009, it represented only 1% of global sales in the off-trade channel, in 2019, the share increased to 7% (approximately 2 billion bottles). Furthermore, in 2021, online alcohol sales grew 42% compared to the previous year.

According to Wine Intelligence (2021), influencers and social media platforms are gaining relevance in the world of wine, a trend that will certainly increase in the coming years. Since the beginning of the pandemic, the sector's investment in digitalizing business and promoting products through digital channels has been notable. Wine Intelligence states that friends, colleagues and family are the main influencers when choosing labels. This study carried out by the same entity, analyzes countries such as China, the United States and the United Kingdom, which helps to understand the extent to which campaigns with influencers and social media can help strengthen brands and boost sales.

In Portugal, according to Multidados (2023), in the inmarket'22 study, it states that the consumption of wine by the Portuguese increased again as the percentage of consumers who claim to consume wine every day increased by 1.6% and despite the context, with 84.3% of consumers stating that the frequency of consumption will continue in 2023. Combining this data with the increase in purchases through the online channel (90% increase in sales – SAPO, 2021), it is clear the importance of companies in the wine sector having an active marketing strategy that also encompasses digital aspects.

## 3. Methodology

For a more comprehensive understanding, in this study, triangulation of methods was used as a research strategy. The choice of methodology for this project is based on the use of a qualitative method with the data collection technique — In-Depth Interview — where good practices and recommendations are respected, through an interview guide, explaining the objective of the study to the interviewee. In addition, and in relation to the quantitative method, a Questionnaire Survey was carried out among wine consumers.

# 3.1 Questionnaire Survey

To achieve the objectives proposed in this investigation, a questionnaire created using the Google Forms tool was developed and implemented, shared on social networks, (Facebook, Instagram and WhatsApp), through the contacts of its authors, to wine consumers and buyers in Portugal, in a convenience sample, from April to June 2023.

In order to achieve a more representative sample, we defined the following as the main research criteria: the characterization of respondents according to gender, age, income and location; the identification of the consumer or buyer; frequency of purchase and the most used social networks, as well as their influence on the choice of wine and purchase decision. When preparing the questionnaire, a 5-point Likert scale was used, ranging from 1 (totally disagree) to 5 (totally agree). The questionnaire is divided into 4 sections: profile of the respondent, purchasing and consumption behavior, people's relationship with social networks and wine and socio-demographic data. The data was statistically analyzed by SPPS, with a pre-test on the questionnaire before sharing. The questionnaire received 131 responses, only 111 of which were correct and complete, as 20 respondents responded that they do not buy or consume wine.

## 3.2 In-Depth Interview

The purpose of the in-depth (semi-structured) interview was to obtain the perceptions of a specialist in marketing management regarding this topic. Therefore, we interviewed the person responsible for the

company (PROVAM, 2023) (a company made up of 10 winegrowers from the Monção and Melgaço Sub-Region) who represent a variety of relevant wine brands on the market. This choice was made after a detailed analysis of the brand's social media and digital performance. Furthermore, the company is immediately available to participate in this investigation.

Contact was established via email with the company, which promptly agreed to participate in the investigation. The interview took place remotely with the company's Marketing Manager, Francisca Danho, via the Zoom platform and followed the defined interview guide. It is worth noting that the interview was recorded, with the consent of PROVAM's marketing manager.

In the transition from interview to writing, we sought to respect, within limits, the specific characteristics of oral transcriptions. However, some specific aspects of the spoken language were corrected, such as word repetition, possible inaccuracies in gender and/or number agreement and redundant repetitions of omitted words. The formal treatment of conversations was also standardized.

There was a concern to write different questions on the subject of study, with an interview guide with 24 questions seeking to obtain information, to answer the research question and hypotheses and in a way to contribute positively to this investigation. The structure allows us to highlight different types of questions, focusing on the profile of the wine consumer in Portugal, the positioning of the brand through Social Networks, digital marketing and communication strategies, the importance of managing Social Networks, frequency of publications, type of content they publish most, the advantages of using Social Networks, the main problems and difficulties in managing Social Networks, strategies for maintaining relationships with customers, how to measure campaign results and customer loyalty through Social Networks.

# 4. Analysis of Results

#### 4.1 Sample Characterization

Having obtained 111 valid respondents who responded that they buy and/or consume wine, the sample was studied and the results were analyzed. As can be seen, table 2 represents the sociodemographic characterization of the sample. The predominance of females is 66.7% compared to males, 33.3%, and it can be seen that we have a sample of a wine consumer/buyer who is mostly female.

Depending on the age variable, it varies between 19 and 65 years old, since alcohol consumption in Portugal is only permitted for people over 18 years old. Therefore, respondents between 19 and 29 years of age stand out with the highest response percentage, with 31.53%; then respondents between 30 and 39 years of age with 28.82% of the responses, which indicates that the majority of respondents we will deal with are between 19 and 29 years of age.

Regarding the area of residence, the northern region is the region where most of the respondents live (72.1%), followed by the districts of central Portugal (19.8%), south (6.30%) and Islands (1.80%), respectively.

Regarding profession, the highest percentage was found to be wine buyers who are specialists in intellectual and scientific activities (21.4%), followed by consumers who are technicians and with intermediate level professions (18.8%). Soon after, there are respondents who are unemployed (11.6%), workers in personal services, protection and security and salespeople (8.9%), unskilled workers (6.3%) and responses, retired people (5.4%) and the unemployed (1.9%).

Regarding the household's monthly net income, the category of €1001 to €2000 per month presents a greater number of responses (28.8%), followed by the category of those earning less than €760 (25.2%). The lowest percentage focuses on income above €3000 (5.4%). This means that we are dealing with a wine buyer with a monthly net income between €1001 and €2000.

Table 1: Sociodemographic characterization of the sample

Sex	n	%
Masculine	37	33,30%
Feminine	74	66,70%
Others	0	0,00%
Residence zone		
North	80	72,10%

Center	22	19,80%
South	7	6,30%
Islands	2	1,80%
Monthly income		
< 760 euros	28	25,20%
761 euros - 1000 euros	26	23,40%
1001 euros - 2000 euros	32	28,80%
2001 euros - 3000 euros	19	17,10%
> 3000 euros	6	5,40%
Profession		
Unemployed	13	11,60%
Specialists in intellectual and scientific activities	24	21,40%
Intermediate level technicians and professions	21	18,80%
Skilled workers in industry, construction and craftsmen	3	2,70%
Personal, safety and security service workers and salespeople	10	8,90%
Unskilled workers	7	6,30%
Others	34	30,40%

Source: Own preparation

# 4.2 Analysis and Discussion of the Survey Results

In terms of wine purchasing and consumption behavior, the vast majority (82.9%) of respondents responded that they are wine lovers. Regarding the type of wine that consumers usually buy, red wine (24.7%) and white wine (23%) are the most popular among consumers. Subsequently, Rosé wine (17.9%), sparkling wine (14.5%), Port wine (8.5%) and liqueurs (6.0%) have slightly lower percentages. Still according to the data collected, recommendations from friends are particularly influential when choosing wine. For 33.5% of respondents, friends are the best sources of information about wine brands.

Wine consumption for (36.9%) of respondents is done weekly. Next, respondents prefer to drink wine monthly (26.1%), fortnightly (12.6%) and every day (9.9%). Therefore, according to the sample, the frequency of wine consumption occurs weekly.

#### 4.3 Analysis and Discussion of the Results of the In-Depth Interview

The most used Social Networks are: Instagram and Facebook. According to the manager, Francisca Danho, LinkedIn is on "standby". Instagram and Facebook are the platforms where most content is shared. YouTube will be the next bet with the aim of launching promotional and institutional videos for the new bottles that come with the new label. Twitter, on the other hand, will be something to think about in the long term. PROVAM does not have defined communication and marketing strategies. The marketing manager is responsible for creating content and communicating the company on social media. This company works in partnership with a communications agency to create content for publications.

#### 4.4 Statistical Analysis

To carry out Pearson's correlation analyzes and the Student's t-test, it was necessary to test some assumptions so that the tests were reliable. One of these assumptions is the normal distribution of variable responses. To test it, the Kolmogorov-Smirnov test was used. If it indicates that the variables do not have a normal distribution, it is necessary to resort to the bootstrapping technique that corrects this non-normality of the data and so we can use the tests with confidence in their results (Field, 2009).

The results of the Kolmogorov-Smirnov test indicated that none of the variables investigated presented a normal distribution, as can be seen in Table 2. Therefore, the Pearson correlation and Student's t-test analyzes used the Bootstrap technique to correct non-normality.

**Table 2: Kolmogorov-Smirnov test** 

The Kolmogorov-Smirnov test						
	Statistic	Degrees of freedom	p-value			
Google	0,247	110	< 0,001			
Social media	0,243	110	< 0,001			
Websites	0,251	110	< 0,001			
Youtube	0,168	110	< 0,001			
Social Networks Good Sources	0,165	110	< 0,001			
Interact with Companies	0,185	110	< 0,001			
Social Networks Influence Purchases	al Networks Influence Purchases 0,19 110		< 0,001			
Age	0,095	110	0,016			

Source: Own preparation

With regard to Pearson correlation analyses, Table 3 presents the correlation coefficients found.

**Table 3: Pearson Correlation** 

Variables	Average	Standard deviation	1	2	3	4	5	6	7
1. Google	3,4	1,23							
2. Social media	3,33	1,27	0,48**						
3. Websites	3,61	1,28	0,31**	0,41**					
4. Youtube	3,03	1,36	0,50**	0,64**	0,53**				
5. Social Networks Good Sources	3,25	1,27	0,14	0,52**	0,32**	0,41**			
6. Interact with Companies	2,92	1,3	0,28**	0,53**	0,28**	0,29**	0,56**		
7. Social Networks Influence Purchases	2,42	1,25	0,16	0,41**	0,25*	0,38**	0,68**	0,56**	
8. Age	36,9	11,6	-0,22**	-0,23**	0,13	-0,19*	-0,16	-0,07	-0,16

Source: Own preparation

Finally, no difference was found between men (M = 2.59; SD = 1.32) and women (M = 3.08; SD = 1.27) in the levels of interaction with companies t(109) = 1.87 p = 0.063, which suggests that both have similar levels of interaction with companies. These results were confirmed with Bootstrap analyzes 95%CI = -0.027 - 1.00. Graph 27 graphically presents the test results.

# 4.5 Validation of Hypotheses by triangulation of methods

H1: Wine buyers/consumers, when choosing a wine brand, are more influenced by wine websites and blogs than by Social Networks.

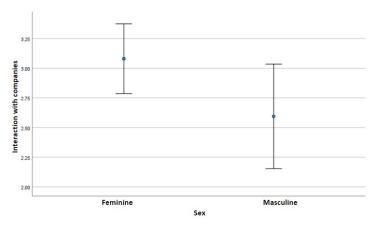


Figure 1: Bar graph and error between gender for levels of interaction with companies. Source: Own preparation

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The hypothesis is validated in the quantitative study and not validated in the qualitative study. According to information collected, respondents consider websites and blogs about wine to be a much more interesting source (33%), however, search engines (20%) and Social Networks (20%) are an interesting source. According to the marketing manager, wine buyers/consumers can be influenced, both by wine websites and blogs, and also by Social Networks, when they are directed at the wine consumer.

H2: Social media is not a good source of information about wine

It was partially validated by the qualitative study and validated by the quantitative study, since 41.4% of respondents agree that Social Networks are a good source of information about wine. However, 54% of respondents, after consulting Social Networks, did not decide to purchase wine. According to the PROVAM manager, Social Networks do not always offer the best education like other things on the internet. When looking for information on the Internet, it is necessary to search and consult elsewhere, however, they are a great source of communication for sharing, advice on wines, wine tourism spaces.

H3: A friend's recommendation has more influence than Social Networks on wine purchases

It was validated in the quantitative study, showing that for 79.3% of consumers, a friend's recommendation has much more weight when purchasing wine. Personal recommendations from friends are generally considered more reliable and relevant. Friends who recommend wine often do so based on their own direct experience. This can add weight to the recommendation because the person has had real experience with the product. This hypothesis was also validated by the qualitative study, as the interviewee highlighted that recommendations from friends are much more influential than Social Networks. If a friend, acquaintance or family member recommends something, people will be more aware of the flavor, feeling more confident in purchasing the product.

H4: The Social Networks most used by wine consumers/buyers are Facebook, Instagram and WhatsApp, and the communication strategies with the most impact are stories/reels

This hypothesis was validated with a quantitative study and partially validated by in-depth interviews. Respondents use Social Media a lot. Instagram is the social network with the most followers (28.3%), followed by Facebook (21.5%) and WhatsApp (22.8%). The content formats that respondents most prefer are images (29.4%) and Stories (28.4%). However, content in video format (19.8%) and Reel (17.3%) also attracts respondents. According to the qualitative study, the company has used more images in its publications to show work involving wine tourism, one of its businesses that includes public visits to wineries and vineyards. In addition, they publish award-winning wines, international highlights, celebrations and events they attend. They are posting more images, however, they are currently doing some reels because they noticed that they are getting more engagement.

# 5. Conclusions

It was found that Social Networks are playing an important role in disseminating information, recommendations and product reviews, as (Pérez-Rodríguez et al., 2022) states, wine consumers increasingly depend on information obtained through Internet, from wine influencers, producers or regular customers, sharing their experiences to improve their understanding of wines.

However, they still do not have a great influence on the purchase of wine, according to the quantitative data collected, only 18% of respondents agree or completely agree that Social Networks can influence the purchase of wine. Quality and price are the most important factors when choosing wine, frequency of consumption is more weekly and supermarkets are distribution channels where the buyer/consumer prefers to buy wine.

Wine websites and blogs proved to be a much more interesting source (33%) compared to Social Networks (20%), search engines (22%) and YouTube (18%), as mentioned (Kallmuenzer et al., 2018), social media tools allow companies to reach current and potential customers effectively and wisely.

In short, PROVAM still does not recognize the importance of Social Networks, observed by the lack of a clear digital strategy and the prioritization of other areas of the business, however, due to part of its consumers being other companies, they do not perceive the immediate value of Social Networks for the wine sector.

There are several reasons why SMEs in the wine industry may not be able to exploit the potential of Social Media in the most effective way: Lack of knowledge, as some SMEs may not be fully familiar with the benefits

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and opportunities that Social Media offers. offer, or may not understand how to use them effectively for your business.

From the analysis of the studies carried out, it was found that social networks are very important, however, when making decisions, wine buyers and consumers do not attribute the greatest importance to them, compared to other points of contact. Based on the findings of the qualitative study, we assume that many Portuguese SMEs work with scarce human and financial resources. They don't hire a community manager to manage social networks. The BCG study (2021) states that Portuguese companies are still in an embryonic phase in the digital area, this could probably be one of the reasons: scarcity of resources.

#### 5.1 Limitations and Recommendations

It is considered that the objectives proposed for the study were achieved, however, throughout the investigation there were limitations that are important to mention. One of the limitations of the study was the small number of respondents, corresponding to a relatively small sample and not representative of the universe of online consumers. Another study framework could enable stronger statistical validation of the data collection instrument, as well as a more statistically robust analysis of results.

For future research, a more in-depth qualitative study is suggested, and following the Delphi method, in-depth interviews, or even a focus group, are recommended with a heterogeneous group of experts in the wine field, e.g.: oenologists, marketers, community managers, directors of companies in the sector, professionals responsible for wine associations (for example, Instituto do Vinho e da Vinha, ViniPortugal, Associação de Municípios Portugueses do Vinho, among others), who, due to their vision and professional experience will contribute to a better understanding and provide more knowledge about the influence of digital marketing on wine purchasing and consumption behavior in Portugal.

## References

- Abecacis, M., Pereira, P., Ferreira, J., Bicacro, E. (2021). The Path to a Bionic Portugal: The digital maturity of Portugal's business fabric. Boston Consulting Group (BCG). In partnership with: Google and Nova School of Business and Economics. <a href="https://www.bcg.com/road-to-bionic-portugal">https://www.bcg.com/road-to-bionic-portugal</a>
- Almeida, C. M., Afonso, C. M., Serra, M., & Antonio, N. (2023). Analysis of Portugal's Wine Certifying Entities' Social Networks as Communication Channels. In Measuring Consumer Behavior in Hospitality for EKohli, S. (2022). Online Alcohol Sales Booming In The U.S. Through These
- Baggio, R., & Valeri, M. (2020). Network science and sustainable performance of family businesses in tourism. Journal of Family Business Journal. <a href="https://doi.org/10.1108/JFBM-06-2020-0048">https://doi.org/10.1108/JFBM-06-2020-0048</a>
- Barber, N., Dodd, T., & Kolyesnikova, N. (2009). Gender differences in information search: implications for retailing. Journal of Consumer Marketing 26 (6), pp. 415-426.
- Berghoef, N., & Dodds, R. (2016). Potential for sustainability eco-labeling in Ontario's wine industry. International Journal of Wine Business Research, 23, 298–317. <a href="https://doi.org/10.1108/17511061111186488">https://doi.org/10.1108/175110611111186488</a>
- Castellini, A., & Samoggia, A. (2018). . Millennial consumers' wine consumption and purchasing habits and attitude towards wine innovation. . Wine Economics and Policy.
- Castronovo, C., & Huang, L. (2012). Social Media in an Alternative Marketing Communication Model. Journal of Marketing Development & Competitiveness, pp. 117-136.
- DataReportal. (2023). Digital 2023. https://datareportal.com
- Eagleman, A. N. (2013). Acceptance, motivations, and usage of social media as a marketing communications tool amongst employees of sport national governing bodies. Sport Management Review, 488-497.
- Esteves, E. (2010). Statistical Analysis in Food Science. In R.M.S. Cruz (Ed.) Practical Food and Research (pp. 403-446). New York: USA: Nova Science Publishers Inc.
- Ferreira, M. F. (2023). Emergence and evolution of e-commerce among Portuguese wine manufacturers: a multiple case study (Doctoral dissertation).
- Field, A. (2009). Discovering statistics using IBM SPSS statistics.
- Gamboa, A. M., & Gonçalves, H. M. (2014). Customer loyalty through social networks: Lessons from Zara on Facebook. Business Horizons, pp. 709-717.
- Hunjet, A., Kozina, G., & Vuković, D. (2019). Consumer of the digital age. Ekonomska misao i praksa, Vol. 28, pp. 639-654. Kallmuenzer, A., Nikolakis, W., Peters, M., & Zanon, J. (2018). Trade-offs between dimensions of sustainability: Exploratory evidence from family firms in rural tourism regions. Journal of Sustainable Tourism, 26(7), 1204–1221. <a href="https://doi.org/10.1080/09669582.2017.1374962">https://doi.org/10.1080/09669582.2017.1374962</a>
- Karagiannis, D., & Metaxas, T. (2020). Sustainable wine tourism development: Case studies from the Greek region of peloponnese. Sustainability, 12, 5223. <a href="https://doi.org/10.3390/su12125223">https://doi.org/10.3390/su12125223</a>
- Kempe, D., Kleinberg, J. &., & Tardos, É. (2005). Influential Nodes in a Diffusion Model for Social Networks. Lecture Notes in Computer Science. Lecture Notes in Computer Science, pp. 1127-1138.

#### Eulália Silva et al.

- Kohli, S. (2022). Online Alcohol Sales Booming In The U.S. Through These Marketplaces.
  - https://futuredrinksexpo.com/en/blog/online-alcohol-salesbooming-in-the-u-s-through-these-marketplaces-419.htm
- Laudon, K. C., & Traver, C. G. (2013). E-commerce: business, technology, society (9th ed.). Pearson.
- Leigon, B. (2011). Grape/Wine Marketing with new media and return of the boomer. Practical Winery & Vineyard Journal, (Winter)
- Marketeer (2023) o consumo de vinho vai manter-se em 2023. https://www.marketeer.sapo.pt
- Moya, K. V., & Lucas, M. R. (2021). Portuguese organic wine consumer behavior. Journal of Rural Economics and Sociology, 59, e238888.
- Murray, K., & Weller, R. (2007). Social Networking Goes Abroad. International Educato, 56-59.
- O'Reilly, T. (2005). What Is Web 2.0 Design Patterns and Business Models for the Next Generation of Software. Obtido de O'Reilly: <a href="https://www.oreilly.com/pub/a/web2/archive/what-is-web-20.html">https://www.oreilly.com/pub/a/web2/archive/what-is-web-20.html</a>
- Obermayer, N., Kővári, E., Leinonen, J., Bak, G., & Valeri, M. (2022). How social media practices shape family business performance: the wine industry case study. European Management Journal, 40(3), 360-371.
- Pérez-Rodríguez, G., Baptista, J. P., Igrejas, G., Fdez-Riverola, F., & Lourenço, A. (2022). Use Social Media Knowledge for Exploring the Portuguese Wine Industry: Following Talks and Perceptions? Scientific Programming, 2022, e2912770. https://doi.org/10.1155/2022/2912770
- PROVAM. (2023). Alvarinho with soul. <a href="https://www.provam.com/">https://www.provam.com/</a>
- Recuero, R. (2007). Typology of Brazilian Social Networks on Fotolog.com. pp. 1-20. Retrieved from <a href="https://www.e-compos.org.br/e-compos/article/view/155/156">https://www.e-compos.org.br/e-compos/article/view/155/156</a>
- Recuero, R., Bastos, M., & Zago, G. (2015). Network Analysis for Social Media. Porto Alegre: Sulina.
- Rodriguez, M., Rodriguez, M., & Fernandez, V. (2021). Wine consumption preferences among generations X and Y: an analysis of variability. British food journal, 3557 3575. doi:DOI: 10.1108/BFJ-12-2020-1156
- Sillani, S., Miccoli, A., & Nassivera, F. (2017). Different preferences for wine communication. Wine Economics and Policy, 6(1), 28-39.
- Skiera, B. &.-T. (2010). The Impact of New Media on Customer Relationships. Journal of Service Research.
- Valeri, M., & Baggio, R. (2020). Social network analysis: Organizational implications in tourism management. International Journal of Organizational Analysis. <a href="https://doi.org/10.1108/IJOA-12-2019-1971">https://doi.org/10.1108/IJOA-12-2019-1971</a>
- Valeri, M., & Baggio, R. (2020a). Social network analysis: Organizational implications in tourism management. International Journal of Organizational Analysis. <a href="https://doi.org/10.1108/IJOA-12-2019-1971">https://doi.org/10.1108/IJOA-12-2019-1971</a>
- Wine intelligence (2021) Does social media impact wine choice? https://www.wineintelligence.com