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DIGITISATION OF THE CATALAN WINE SECTOR: ANALYSIS OF THE ONLINE COMMUNICATION OF THE DO PRIORAT, EMPORDÀ AND ALELLA¹

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ABSTRACT. *Digitalisation plays an important role in today's economy. Companies are beginning to understand that the Internet is the place where they need to be seen. For this reason, this work aims to analyze the online communication of the names of the place of origin of the winemakers Priorat, Empordà and Alella. To achieve this objective, a quantitative methodology is applied, and in particular, an analysis of the content of the websites of the winemakers in question is carried out and it is determined how the companies have adapted to the new technologies and the digital environment 2.0. in order to sell their brand and reach a larger audience. Thus, the main conclusion of this work is the need to update the digital image of these winemakers and to improve the way in which information is transmitted by modernising communication channels.*

KEY WORDS: indication of the place of origin of wine, digital marketing, new technologies.

JEL classification: M14, M19, P2.

Introduction

Information and communication technology is gaining more and more space within society. In fact, according to the latest data published by the Spain National Institute of Statistics, INE, (2022), broadband penetration among Spanish households has increased to reach 96.1% in 2022 an increase of 30.6% in the last decade. Along with this, 91.8% of the Spanish population claim to use the internet on a regular basis. The most performed activities by the users are to communicate - 90%, to send e-mails - 79%, and to make video calls – 76% (INE, 2022). However, and this is where this work finds its justification, 74% use the internet to look for goods and services.

Among other consequences it affects electronic commerce, specifically B2C, the cross-border electronic commerce between companies and consumers which mainly applies to companies which sell directly to consumers on a global scale (Wang *et al.*, 2018, p.399). Authors such as Dholbe *et al.* (2020) conclude that: The expansion of electronic commerce, together with technological advance and the current importance of communication, create a framework of innovation that generates a great number of opportunities for companies, at the same time that one must be cautious with the different technological threats that may arise (Dhobe *et al.*, 2020; Popova, 2021; Machova *et al.*, 2023; Krajčik *et al.*, 2023).

There are various motivations that lead users to purchase products through e-commerce. Those that stand out, among others, are convenience, good value for money, diversity and a positive consumer experience (Lukicheva, Semenovich, 2019, p.81). On the other hand, according to Montero y Sousa (2022), the consumer's mood during the purchasing process is a determining factor in their decision-making.

Consequently, the importance that digitisation acquires within any economic sector that makes up the business fabric of any country is evident. In line with this statement, this work focuses on the analysis of the digitisation of the wine sector in Catalonia which has a strong impact, both on a social and economic level. In figures, according to the Generalitat de Catalunya (2021), the Catalan wine sector has a very solid and competitive structure with more than 600 bottling cellars, 8,359 winegrowers and an area of 42,822 hectares registered with the

Catalan Designation of Origin (DO). As the report indicates, the wine production industry in Catalonia generates a turnover of €1,185 million, which represents 5.25% of the agri-food sector in Catalonia. Finally, the sector employs more than 25,900 workers either in the vineyards, in the wineries, or in the service sector.

However, in spite of having a large economic-social impact, no studies or reports have been prepared regarding the quality of the web pages of the main Catalan DO wineries. Currently, the digital communication strategy is or emerges as a central element in any company. For this reason, this work, which is presented as part of a larger study within the field of communication and the wine sector, aims to analyse the web pages of the wineries that make up three of the main Catalan denominations: Priorat, Empordà and Alella.

1. Literature Review

The importance of viticulture in the development of the territory is a fact that has been studied for centuries as the history of the wine trade in the current Catalan territory first expanded during the Roman Empire. An example of this traceability is provided by Miró (1989) who has already worked on amphoras found in different parts of the European continent, which were made in Catalonia and marketed throughout all the known territory; You can discover the wine trade during the Roman Empire by the stamps and marks that indicated where the amphora had been made as well as the origin of the wine.

The impact of this sector goes far beyond economic factors. In this regard Molleví (2004) explains that the development of viticulture within a territory can generate positive effects on the economy, society, and the environment. More specifically, the author focuses on the DO, where he argues that the Denominations of Origin distinguish and give value to the wine of the area. Along with this, Molleví (2004) explains that the creation of Designations of Origin has been a key element in the economic, social and territorial development of some Catalan agricultural regions, especially in Priorat and, later, in Empordà; Likewise, they have consolidated the permanence of wine regions with a high risk of disappearance, as is the case of Alella.

The DO are a seal of quality which also identifies a wine with a territory that provides it with uniqueness. The DO have been promoted by the European Union by guaranteeing a quality product to consumers by valuing the work of viticulturists and winemakers in the preservation of rural regions, avoiding population desertification or the spread of forest fires and revitalising areas with lower GDP with the increase in new sectors such as wine tourism or electronic marketing (Molleví, 2014; Molleví *et al.*, 2021). Wine made in a region protected by a Denomination of Origin is considered to be unique and can only be made in that specific territory where the characteristics of the terrain (meteorology, geomorphology, hydrology, orientation and unevenness) are combined with the wisdom provided by the communities that have inhabited and worked that territory with their knowledge and cultures (specific planting of the best varieties, the vine care process, production period, bottling and marketing). As indicated by Molleví (2014), since Spain became a member of the European Union production quality has been consolidated, increasing the number of DO and the size of the area covered by this seal of quality. In this way, in the case of Catalonia, almost all the vineyards are included within one DO or another, with the ten DO currently being: Alella, Catalonia, Conca de Barberà, Costers del Segre, Empordà, Montsant, Penedès, Pla de Bages, Tarragona, Terra Alta plus the Priorat Qualified Designation of Origin (DOC), which is of a higher rank. It must be taken into

account that there is only one other DOC in Spain - Rioja, although in this case it is found in three Autonomous Communities (Navarra, La Rioja and the Basque Country).

This fact, applied to the different DO that are the object of the study of this work, has been collected by other authors. Following the argument put forward by Molleví (2014) and De San Eugenio *et al.*, (2014) they explain that the development of a quality wine product is a differentiating feature to consider in an increasingly competitive territorial space. In addition, they link it with the concept of brand development. Wine production and the value of provenance give territories a valuable opportunity for differentiation in a context of emerging competitiveness between geographical spaces. In the case of Catalonia, the Priorat region and its identity link with the wine denominations of origin (DOC Priorat and DO Montsant) which have represented an example of local development as well as positioning for this region of Tarragona (De Sant Eugenio *et al.*, 2014, p. 67). Assuming both arguments, the fact is that the wine sector represents an ecological, sustainable and social way of growing a territory and, with it, a specific geographical area (Molleví, Villoro, 2021). However, as stated above, we are currently witnessing a marked digitisation process, where the Internet and social networks play a determining role (Mundet *et al.*, 2022). In other words, nowadays, there is a need to make the real ecosystem coexist with the digital one (Ivanova *et al.*, 2021; Khalatur *et al.*, 2022). This is where the importance of having an online presence, and more specifically of web pages, comes into play. On this issue, it should be noted that, although technology and the entire current technological ecosystem allow for the promotion of good company management, the most used tools within the business context are email, in relation to internal communication, and website, for the development of external communication (Cuenca-Fontbona *et al.*, 2022; Radavičius, Tvaronavičienė, 2022.).

In the end, as Vino (1997) points out, we are projecting things on the Internet that already exist in the real world. From its origin to the implementation of social networks, we have witnessed a radical change in the way of communicating that Urías (2022) presents in four main areas: transparency, collective intelligence and social power, ideas and speed. To understand the importance of social networks and their impact, the author gives the following example: “But, by chance, they are in the same WhatsApp group which receives links to the latest fashionable “nonsense”, whether it is the video for “Despacito” which was viewed more than 3,000 million times, or a Tik Tok montage” (Urias, 2022, p.38).

To this series of paradigm shifts we must add a question of interest: The Digital Spain Agenda 2025. In other words, this theoretical review is not only about discussing or explaining the different reasons that shape the object of this study, but it also presents a social reality that fully affects that wine sector and others, and this commitment is reflected in the plan for the future of Spain and proposes that digital transformation is the pillar on which economic growth is created, as well as allowing inequality to be reduced and an increase in productivity to be created, in essence, that digital transformation will be a key factor in the country’s economy (Álvarez, Biurrun, 2022).

In short, digital space currently acquires a value equal to that of the real world. The truth is that as long as this premise persists, special interest should be paid to the digital world and the possibilities it offers: “The company’s digital marketing strategies help to strengthen relationships with the different stakeholders that contribute to improving the company’s situation in difficult situations or times of crisis” (Gómez, Guillamón, 2022, p. 122). Therefore, it is interesting for this work to evaluate the use of the digital space from a specific economic sector, such as the wine sector, and in a specific territory of quality granted by the mark of a Denomination of Origin.

To conclude, and according to the literature consulted, it is evident that two issues arise: the first is the importance that the Denominations of Origin have for the territory and society and the second, digitalisation is a key element in the development of the companies.

This study addresses both questions and carries out an analysis of the current state of communication of the DO Alella, Empordà and the DOC Priorat. Thus as has already been established the current work aims to analyse the web pages of the wineries that make up three of the main Catalan denominations or origins: Priorat, Empordà and Alella. This will allow us to answer the following questions:

- To know about the status of communication of the web pages of the DOC Priorat, DO Empordà and DO Alella.
- To analyse the degree of implementation of electronic commerce through the quantification of the e-commerce present in the wineries that make up the DOC Priorat, DO Empordà and DO Alella.

2. Methodology

2.1 Analysis Units

Three Catalan DO are being studied: Alella, Empordà and the DOC Priorat. All three are historical Denominations of Origin, created in 1975 based on Law 25/70 of the Wine, Vineyards and Spirits Statute, which already recognised the existence of unique wine regions and the creation of Denominations of Origin regulated by the Regulatory Council. The legislative evolution, the reality of the Autonomous Communities in Spain, and Spain becoming a member of the European Union implied re-regulating the regions protected by a quality wine product. At present there are three laws: the European, the State and the Autonomous (Molleví, 2020). As previously mentioned, the figure of the protected Denomination of Origin is recognised in all three because it gives quality and specificity to the wines produced in a determined region, with their own physical and human characteristics which link the territory and the community (Molleví, 2014).

Wine allows the marketing of a quality product with a greater added value. The wine sector is dynamic and open to an increasingly globalised world in which local values provide exclusivity. It is a product which is agricultural, artisan, industrial and comes from the service industry which has allowed the birth of a specific type of tourism: wine tourism. On top of this, it has the value of a brand that encompasses the territory and the name.

These three Catalan regions have been chosen because they show the evolution of the Catalan wine sector, as they were already present in the international market in the last century. They are internationally recognised brands, although it is true that they have gone through better and worse cycles. For decades, they have been working on the trade and sale of the product, linking it with the territory. In the case of Priorat, it has the presence of the Serra del Montsant - which is an excellent place for retirement, climbing and astronomical and mystical tourism. The Empordà is on the Costa Brava and in the case of Alella it has the wines of the Catalan bourgeoisie that promoted Antoni Gaudí's Catalan Modernism.

What interests us about Alella is that it is the smallest DO in Spain. Its survival until today near a large city like Barcelona is explained by the struggle of its people who have kept it alive and have turned it into a DO that is respectful of the environment, friendly to visitors and with great quality wine products thanks to its orientation towards the Mediterranean Sea on gentle undulating slopes (Molleví, 2021). It is a DO that promotes sustainable agriculture, the

production of wines with strong potential and increasingly international sales taking advantage of the tourism in the city of Barcelona and promoting cultural activities that mix cinema or jazz music with wine tasting and other local products (Molleví, 2021). For this reason, it is important to assess its digitisation in today's commercial world.

The DO Empordà is a border region straddling two countries, Spain and France, which has learned a lot from both territories and has adapted to a region marked by "la Tramontana" the strong north wind which characterises the Costa Brava. It is also a coastal area which, with the adaptation to the new Catalan wine reality, included the municipalities of the south with the municipalities of the north, thereby doubling its territory (Molleví, 2021). The reason it has been included in this study is due to its proximity to the French territory, a wine region "par excellence" where one can obtain information or knowledge about new trends in the sector, and for example of this would be development of wine tourism based on wine routes in French regions (Molleví, 2020).

And finally, Priorat. A DO with a great reputation. A territory that has experienced crises, comebacks, debacles and at the end of the last century re-emerged with great force, even more so on an international than a national scale. It knew how to sell like no Spanish winery has done before, auctioning off its wines as if they were paintings in an art gallery (Molleví, 2014). In Priorat they know how to sell wine very well because production is low, one of the lowest levels in the entire Spanish state (Mundet *et al.*, 2022). But it has an alcohol content that makes it a quality wine, with great strength and potential. Its place in the study is essential since it is a region that is difficult to access, half hidden in the mountainous interior of the Catalan lands near the Depresión del Ebro and protected by the Serra del Montsant (Molleví, 2021). It has been precisely the exploitation of the brand that has led many wine tourists to find it on the map and has generated a need to visit an inhospitable place which is difficult to access. It has taken advantage of its proximity to the port of Tarragona, the AVE train station and Barcelona airport, Port Aventura World Amusement Park with its new Ferrari attraction and a coastline with beaches renowned for the quality of the water and the offer of hotels and restaurants.

Furthermore, it is necessary to compare the space and digital usage in these three wine regions because they all have a tradition in the sector and produce a quality product which is recognised both nationally and internationally. On the other hand, their unique characteristics - a specific type of soil such as licorella, an orography close to the sea or mountainous, a wine made by combining ancestral traditions with oenological novelties (Molleví, 2020). Have meant they have been selected for this study, allowing an analysis of the trajectory of the sector and the digital world in recent years.

2.2 Procedure

This study proposes the use of a quantitative methodology based on the content analysis tool to carry out the study of the web pages of the DO contained in the object of this study. Specifically, this study is based on other pieces of work about the strategic analysis of network communication, such as those prepared by Sánchez González and Paniagua Rojano (2013) and Sánchez González *et al.*, (2017). Based on this, the following issues related to the proposed objectives are considered:

- To study the type of online press room
- To examine the presence of online stores

In order to answer these questions and the objectives set out in the previous point, the study proposes the following phases:

Phase 1: Establish a census of the wineries that make up the DO that form part of this study. Specifically, those that were obtained from the respective Regulatory Councils and based on the latest published report.

Phase 2: As mentioned González, Paniagua Rojano (2013) and González *et al.*, (2017) a database was set up for the elaboration of this census which, in addition, was expanded by adding the variable of e-commerce. The data collection period occurred in the month of September 2022.

Phase 3: Data exploitation. Once the database was prepared, the content analysis was carried out. Regarding the establishment of the variables that shape the press rooms, according to González, Paniagua Rojano (2013) and Sánchez González *et al.*, (2017), they follow those described by García Orosa (2009) who establishes the following type of rooms:

1.0: It only includes data about the department and a contact e-mail.

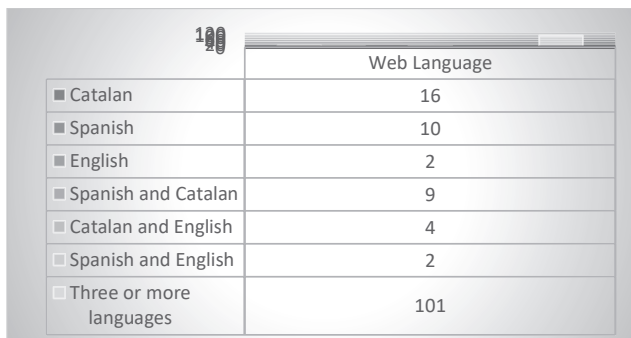
1.1: It offers news about the organisation, in addition to the previous data, but without periodic updating.

1.2: It consists of a space where you can access all kinds of communication documents (press releases etc.).

2.0: In addition to what was stated in 1.2, it allows interaction with users.

3. Results

As a result of the content analysis that has been presented in the methodology, the data is used to establish the universe of the analysis. Specifically, there are 142 wineries within the DO of Alella, Empordà and Priorat that have a web page out of the 167 that make up the official census. From this, some basic aspects emerge that are noteworthy and set out below.



Language	Count
Catalan	16
Spanish	10
English	2
Spanish and Catalan	9
Catalan and English	4
Spanish and English	2
Three or more languages	101

Note: own elaboration.

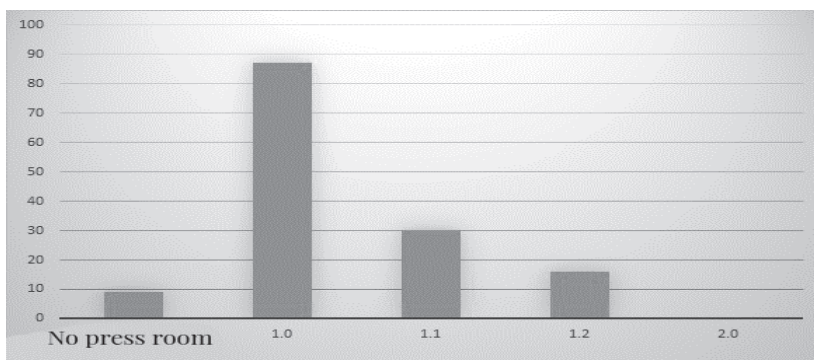
Figure 1: Languages Available on the Web Pages of Wineries in Empordà, Alella and Priorat

In this first variable, the importance of the availability of knowledge of languages for business and for the area itself is evident. In a premature conclusion, it can be linked to two reasons. The first is strictly economic, since if there is a greater availability of languages, it is probable that there will be greater ease of access to the market. Secondly, Catalonia is a territory where two languages coexist, Catalan and Spanish, and which is also geographically close to France, so we can sense the need to connect with the neighbouring country.

Following this line of thought, it can be highlighted that in 71.1% of the cases analysed, the web pages are available in three or more languages, mainly in Spanish, Catalan, English or French. In second place, and a long way behind them, with 11.3% of the results are the web pages only in Catalan. This fact is easily explainable since, as has been argued in the methodology, the link between territory, wineries and appellations of origin in which Catalan is the vehicular language is evident. With 7% of the results, we find the web pages that are only available in Spanish, and finally it should be noted that 6.3% are available in both Spanish and Catalan, due in part to the commercial importance of Spanish for some wineries.

In any case, as explained at the beginning of this section, most of them are available in three or more languages, which is a very significant fact. It highlights that, although France is a nearby wine territory, the predominant foreign language is English.

The next element to consider within the strategic analysis of communication is the type of the press room. On this issue in particular, the data obtained is alarming, as can be seen in *Figure 2*.



Note: own elaboration.

Figure 2. Types of Winery Press Rooms on the Web Pages of Empordà, Alella and Priorat

On this point it is interesting to recall the theory. As has been established, García Orosa (2009) establishes the following room typology:

1.0: It only includes data about the department and a contact e-mail.

1.1: It offers news about the organisation, in addition to the previous data, but without periodic updating.

1.2: It consists of a space where you can access all kinds of communication documents (press releases etc.).

2.0: In addition to what was stated in 1.2, it allows interaction with users.

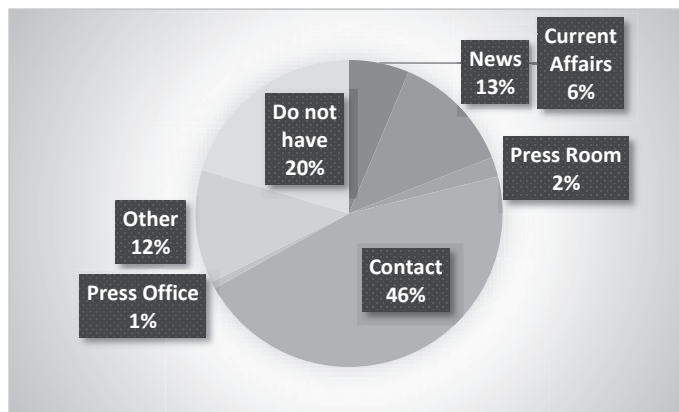
Although in Graph 1 having web pages in several languages has been established as a positive value, in Graph 2 it can be seen that the vast majority of press rooms are, in general terms, of very low quality. In this sense, 61.3% are 1.0. To visualise this, it is the traditional “contact” space that most of the web pages generically contain. In other words, more than half of the web pages in Empordà, Alella and Priorat do not have a space to communicate with their target audience. On the other hand, 21.1% of the sample analysed are type 1.1, although it is true that they offer a slight improvement, meaning there is a specific space under the news heading (18.9% of the web pages analysed). Here it contains specific information about the winery, although in the following paragraphs we will explore these aspects in more detail.

Regarding 1.2, only 11.3% are in this category with 0% of those classified as 2.0. From this first phase of analysis, it can be noted that there is an adaptation problem on the part of the wineries of the DO of Empordà, Alella and Priorat to go from the structure of a web 1.0 to a 2.0., a conclusion that will be discussed in more detail in section 5.

3.1 Analysis of Press Room Content

The main objective of this work is the analysis of the presence on the Internet of wineries that make up the DO of Empordà, Alella and Priorat. There are two key elements in the current digital communication: the press room, which is also known as the current affairs or newsroom, and electronic commerce through e-commerce.

Regarding the first point, we must assume the importance of following a nomenclature according to the information presented. In this sense, it is clear that each space on a web page provides or should provide a specific context. However, after carrying out the analysis the lack of coherence between web pages has been discovered, as can be seen in *Figure 3*.



Note: own elaboration.

Figure 3. Types of Press Rooms in Wineries in Empordà, Alella and the Priorat

According to the figures taken for this study, 46% of them have been defined as *contact* compared to the 13% mentioned above, which have been classified as *news* and finally, 9% as *current affairs*.

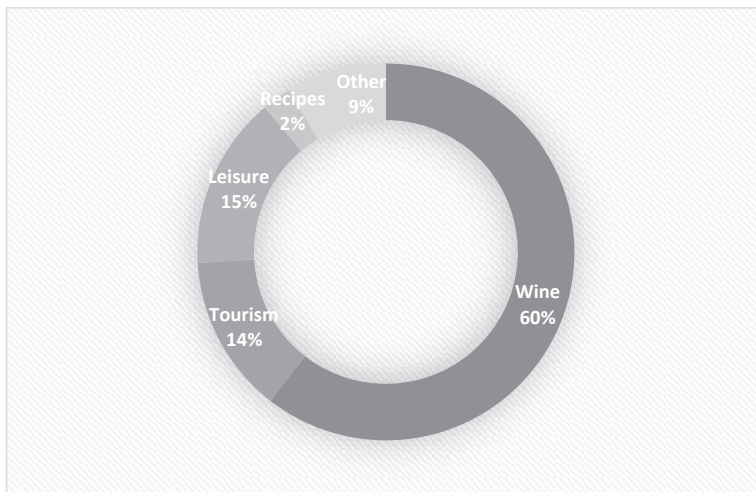
Another significant piece of information is that 20% of the web pages analysed do not have a press room in any of the established categories. Therefore, this can negatively affect the brand and image of each of the wineries individually and the DO as a whole. The choice of terminology employed by wineries on their homepage holds significance, as it plays a pivotal role in shaping SEO rankings and shaping the content to foster a thriving online community or cultivate a connection between the user and the winery.

Therefore, it is striking that 46%, almost half of the universe analysed, include or only have *contact* terminology. It becomes evident at this point that it is a fact which is linked to the previous point, when it was pointed out that only 61.3% have a 1.0 press room, in other words, those that only include data about the department and an email contact.

In relation to everything stated in this section, it is noteworthy that only 3% of the universe analysed uses the term “press room” or “press office”. This data notes a lack of

involvement in terms of information and relationship with the web environment, limiting the amount of information and the possibilities of it reaching the community.

Regarding the type of content published within these communication spaces, the most common are the sections referred to in *Figure 4*.



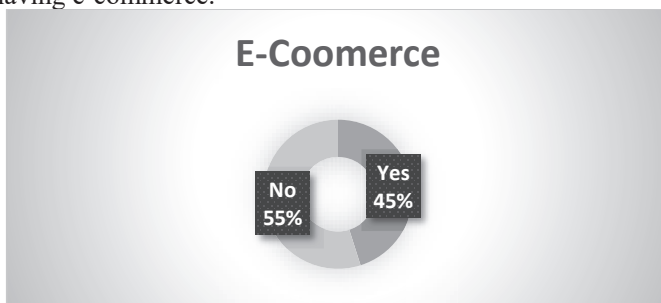
Note: own elaboration.

Figure 4. Subject of Contents of Press Rooms of Empordà, Alella and the Priorat

From *Figure 4* it can be noted that most of the published content, 60%, is devoted to winemaking. This affects all phases of production. 15% of the wineries dedicate space to leisure and 14% of the contents are aimed at the promotion of territory or the creation of a brand for tourism.

3.2 E-commerce

One of the aspects discussed in the introduction and that is relevant in today's current business environment is the possibility of selling products through a company's web page or, in other words, having e-commerce.



Note: own elaboration.

Figure 5. Wineries in Empordà, Alella and el Priorat with e-Commerce

As can be seen in *Figure 5*, 55% of the Priorat, Empordà and Alella wineries do not have e-commerce on their web page. If we take into account the survey "Equipment and Use

of Information and Communication Technologies in Homes” carried out by the National Institute of Statistics in 2020, 83.7% of Spanish households with at least one family member between 16 and 74 years old have some type of computer (desktop, laptop, tablet). Therefore, the fact of not having e-commerce, a priori, limits the capacity of purchasing any product.

In principle, the absence of having their own e-commerce hinders the commercial communication process and limits the purchasing possibilities of consumers. However, it must be considered that the vast majority of the wineries analysed sell their wines through a wide variety of external distribution channels, many of them online, so the non-existence of their own online sales channel does not necessarily limit the commercial action of the winery.

Likewise, we have to consider that some wineries have a small production that does not allow for a large-scale marketing system since, in fact, the production has already been sold without the need for this type of sales channel.

4. Discussion

The results described reveal a series of issues. Firstly, there is a notable presence of the DO Empordà, Alella and Priorat in the digital world. However, another issue that is evident is a certain gap in the digital strategies developed. In this sense, although the vast majority of the wineries linked to the three DO, and which are part of the census of the respective Regular Councils, have a web page. It has been observed through the data provided that the wineries’ press rooms all belong to a stage prior to social networks and the creation of web 2.0. In fact, it can be seen how only 11.3% of them have or possess characteristics of a 1.2 press room and none of them have a press room that is 2.0.

As previously mentioned, another aspect that invites debate is the fact that 55% of the wineries that make up this study do not have their own e-commerce. Although it is true that having your own e-commerce is a key point in the digitisation of a business, there are certain considerations that should be taken into account:

- A large majority of wineries that make up the three DO analysed must be considered as being small companies, with a significant number of micro-enterprises. This fact may explain why many of the wineries, with few resources and capacities, prefer to focus on the activities of the value chain that are key in the production of wine and delegate the marketing of the product to other specialist companies.

- In the case of DOC Priorat wineries, it can be noted that they use e-commerce less than the others, specifically 10% according to Graph 5. This is due to its international trajectory in recent years, in which its wines have been recognised with international awards. On the other hand, as described in Graph 3, the majority of the wineries analysed in the three DO allocate few resources to the creation and the management of the press room. This is evident when observing that there are no wineries that include a press room that can be classified as a 2.0 room. The vast majority of press rooms are very basic, specifically 77.28% that is, they are 1.0 or 1.1, and do not allow different audiences or stakeholders (customers, consumers, journalists from the sector, suppliers etc.) to interact with the company.

Obviously, having a more up-to-date press room adapted to the 2.0 world would allow wineries to:

- Connect with different interest groups, including consumers, distributors and suppliers.
- Provide information of interest such as press releases, reports, newsletters, product presentations, awards and distinctions etc.

- Improve the organic web positioning of the web page: the online press room is also an SEO tool.

- Offer a repository of multimedia content, which would make it possible to connect with a younger audience and transmit a more modern image of the organisation.

Despite the benefits of having a press room adapted to the 2.0 world, we must take into account, as has been mentioned before, the small size of the companies that make up the different denominations of origin.

Another consideration to highlight is the situation that has occurred in the DOC Priorat (which includes more than 100 wineries) in the last 20 years. Many of the wineries in this DOC have more demand than supply (Mundet *et al.*, 2022). This means that before a specific vintage starts to be marketed, a large part has already been sold (in many cases internationally). It is logical to think that if a group of companies enters into a dynamic in which they do not have sufficient production capacity to supply a growing international demand, marketing actions (digital or not) may be secondary. In the digital field this can affect such actions as the inclusion of a 2.0 press room, the creation of their own virtual store or the management of social networks.

Conclusions

This study started with the main objective of this study was to find out the state of digital communication of the wineries that make up three of the main Catalan designations of origin: Priorat, Empordà and Alella., along with the following secondary objectives:

- To know about the status of the communication of the DO of Empordà, Alella and Priorat web pages.

- To analyse the degree of implementation of electronic commerce through the quantification of the e-commerce present in the wineries that make up the DO of Empordà, Alella and Priorat.

In the different points that make up the part of the results, each one of the objectives has been achieved.

In general, the analysis of the web pages of the wineries which make up three of the main Catalan denominations of origin: Priorat, Empordà and Alella, has shown us a significant presence of the wineries in the digital space.

Regarding knowing the state of communication of the DO of Empordà, Alella and Priorat web pages it was discussed in Graph 2, as long as it is understood that the theoretical description upon which this work is based is the one presented by García Orsoa (2009).

And finally analyse the degree of implementation of electronic commerce through the quantification of e-commerce present in the wineries that make up the DO of Empordà, Alella and Priorat it should be noted that, as shown in Graph 5, there is a percentage of less than 50% of wineries with this tool. However, in the future, the integration and modernisation through other channels should be analysed and this includes the press room and social networks. In the same way, it would be interesting to introduce other types of media when offering information, for example in video or podcast format, so that it reaches a younger audience.

This comes into direct conflict with the projection of a digital image and, consequently, can generate a negative image about the winery in particular and, if it happens frequently, about the DO as a whole. Social networks and the digital world offer a great opportunity to create a brand, but must be managed by and for the user.

The proposals suggested in this study refer to the need to improve the digitisation of the wineries in the communication and marketing section. This would provide companies, always

based on their needs, with a plus in the projection and sale of their products. These proposals are the following:

- The inclusion of French as a language on the same level as English. The French market is very interested in quality and unique products from a region, and they appreciate the “savoir faire” that is the tradition, the terroir and the culture linking the people and the land, as indicated in Molleví (2020), Many French people take advantage of the proximity to Catalonia for tourism and especially wine tourism.
- Improve the web page, not only offering contact, but also more content and information related to the wine sector.
- As a result of the above, improve the way of transmitting this information, either by using the traditional blog or contributing new channels such as podcasts and cascading home pages (reading by vertical scrolling) among other available tools.

Finally, it should be noted that this study shows that, although the DO Priorat, Empordà and Alella wineries are not sufficiently digitised, they have for the most part used modern marketing and digitalisation techniques. For this reason, it is essential that they carry out some kind of audit to evaluate their digital status in areas of business and marketing of each winery and of the DO as a whole. In the case of the region bound by a seal of quality, the action should be agreed and done jointly, although each winery could preserve its essence. On the other hand, this consensus within each DO would allow for the singularity and differentiation of each DO with respect to the others. For example, what is perceived when analysing the marked differentiation of the DOC Priorat wineries with those of the DO Empordà and Alella. The first two moves more in an international field of Anglo-Saxon and participate in international awards and competitions opening themselves up to the international market this confirms the theoretical framework indicated by Molleví (2020) and Mundet (2022) as a driver of territorial development using the figure of the DO. Empordà can use its proximity to France to boost the French market, linking it with wine tourism, cultural and terroir attractions that these consumers look for, but also by participating in North American events (Molleví, 2020); and Alella could use its proximity to Barcelona to open up to tourism from any part of the world on its web pages based on its sustainability and nature, as it is a “green lung” near a large city, as indicated in Molleví (2020).

As regards to future lines of investigation, social networks are one of the great pillars of communication on the Internet. Therefore, together with the study of the web pages, it would be interesting to include in the future an analysis of these wineries on social networks that would allow us to obtain an x-ray of them. As we have mentioned in the theoretical framework, social networks affect the purchase perception process (Carlson *et al.*, 2021) and produce an impact on the management of digital identity in tourism (Mathew, Soliman, 2021). It is in this section that the modernisation of the contents of the wineries’ web pages could be evaluated, both in the content and the way of transmitting their message.

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KATALONIJS VYNO SEKTORIAUS SKAITMENINIMAS: DO PRIORAT, EMPORDÀ IR ALLELA INTERNETINĖS KOMUNIKACIJOS ANALIZĖ

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SANTRAUKA

Skaitmeninimas šiuolaikinėje ekonomikoje yra reikšmingas. Įmonės pradeda suprasti, kad internetas tai vieta, kurioje jos turi būti matomos. Dėl šios priežasties šiame darbe siekiama išanalizuoti Priorat, Empordà ir Alella vyndarių kilmės vietos pavadinimų internetinę komunikaciją. Šiam tikslui pasiekti taikoma kiekybinė metodika, o konkrečiai – atliekama minėtų vyndarių tinklalapių turinio analizė ir nustatoma, kaip įmonės prisitaikė prie naujų technologijų ir skaitmeninės aplinkos 2.0. siekdamos parduoti savo prekinį ženklą ir pasiekti didesnę auditoriją. Taigi pagrindinė šio darbo išvada – poreikis atnaujinti šių vyndarių skaitmeninį įvaizdį ir modernizuojant komunikacijos kanalus pagerinti informacijos perdavimo būdą.

REIKŠMINIAI ŽODŽIAI: vyno kilmės vietos nuoroda; skaitmeninė rinkodara; naujosios technologijos.