

# Alentejo's E-Wine Tourism: The Dimensions of the Travel Planning Functionalities Conveyed by its Wineries' Websites

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**Abstract** | Among the considerable diversity of tourism products usually offered to tourists in rural destinations, wine tourism is one of the most valued and most beneficial to local communities.

Starting from the premise that one of the fundamental primary resources of any wine tourism destination is its wineries, the general aim of this study is to make a comparative analysis of a group of wineries located in the Portuguese wine region of Alentejo. In addition to the official website of the Alentejo regional DMO, the empirical study analysed ten websites of wine tourism wineries that include tourist accommodation.

The contents and functionalities relevant to tourist demand during the planning process of a wine tourism experience were identified, as well as the inconsistencies between the websites of the selected wineries in terms of their capabilities and the way they communicate with their potential visitors.

The empirical analysis concluded that the Alentejo DMO's regional website had only a limited set of basic relational functionalities, which do not allow for the creation and maintenance of relationships between the destination and its current and potential clients. As far as the wineries' websites are concerned, there is a considerable difference between the size of the functionalities of the different wineries' websites, their diversity and, above all, their

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sophistication, which reveals gaps and inconsistencies in the online presence of one of Portugal's main wine tourism destinations.

**Keywords** | wine tourism, tourism websites, Alentejo, DMO, DMS

## 1. Introduction

Since the dawn of the “internet era”, in the 1990s, most destinations and suppliers of tourism products and services have tried to take advantage of its promised benefits to better communicate with their target markets (Buhalis, 1998). However, most of these actors started by using the internet to build consumer-facing websites with the sole purpose of informing potential customers about their offers, promoting them to them.

In the particular case of tourism destinations, this was a natural consequence of the role that Destination Management Organisations were then expected to play, which prioritized purely promotional efforts with potential visitors (Pastras & Bramwell, 2013). For this reason, most official websites of tourism destinations were no more than mere electronic brochures exclusively created for promotional purposes to attract tourists (Roque & Raposo, 2016).

The expansion of the role and responsibilities expected from a Destination Management Organisation (DMO) has, more recently, made these entities a pivotal actor, at the level of a tourism destination, in the internal coordination of different tourism agents, as well as their sustainable tourism development in general (Sheehan, Vargas-Sánchez, Presenza, & Abbate, 2016). In other words, from a focus on the external environment (promotion to potential visitors) the DMOs also moved to the current focus on the internal environment, especially in the coordination of tourism agents and the balanced development process of the sector (Sheehan et al., 2016).

Consequently, from the late 1990s onwards, a handful of DMOs attempted to implement online platforms, usually referred to as Destination Management Systems (DMS) that also enabled digital interaction within the DMO, with tourism agents based in the destination, as well as between them (Sussmann & Baker, 1996). This would imply a deepening of the scope and complexity of DMO information systems, which would necessarily move from relatively static websites where it was only necessary to publish information, to intranet networks (for intra-DMO communication) and extranet (interconnecting the DMO and destination tourism agents) (Sigala, 2013). At the same time, the growing (i) sophistication of tourist demand, (ii) capacity of demand to use the internet in planning and purchasing tourism products,

progressively requiring one-stop-only platforms (research, planning and purchasing on a single platform) (iii) hegemony of tourist intermediaries, especially online travel agents (OTA), also justified the development, by several DMOs, of consumer-facing websites not only focused on promoting the offer. The implementation of such websites sought, above all, to support the planning and acquisition of personalized tourist experiences, thus operating a bypass to the progressively powerful OTAs (Martins, Carneiro, & Pacheco, 2021).

Apart from the wine itself, perhaps the fundamental prerequisite for most wine tourism experiences is the availability of wineries that can be visited by tourists. As suggested by Zátori (2016), one of the four requirements for structuring innovative experiences tourism is the introduction of new knowledge generation and sharing processes, with the aim of increasing the experiential value of the tourism product. This requirement implies, among other initiatives, the development of online platforms that allow not only the sharing of up-to-date and relevant information to tourists, but also between the different tourism destination players.

Portugal is a country in which both the wine and tourism sectors play an important role in the national economy. By combining both sectors, wine tourism became an important product for Portugal's tourism strategy, "due to its ability to promote the development of the territory, to value endogenous products, where Portugal has a clear competitive advantage, and due to its potential to attract long-distance market segments that stay longer and spend more" (Turismo de Portugal, 2022b, p. 2). Portugal is the fifth European country with the largest area of planted vines, representing 2.7% of the world total and was, in 2020, the 5th European country with the highest wine production, after Italy, France, Spain and Germany (Turismo de Portugal, 2022b). Among the regions with the highest potential for developing wine tourism, Alentejo is particularly relevant, mainly due to its considerable size.

Occupying around 23.3 thousand hectares of vineyards, the Alentejo region is currently the leading wine producer in Portugal, with a market share of 14.17% (Gomes, Sousa, Novas, & Jordão, 2021). However, Alentejo wine is mainly known in Portugal, losing out to other Portuguese wine regions in terms of exports. As suggested by previous research, wine tourism has been instrumental in helping some wine regions that are less renowned domestically to gain greater recognition abroad (Alonso, Bressan, O'Shea, & Krajsic, 2015).

Previous research suggests that one of the decisive factors for the competitiveness of destinations, attractions and tourism companies lies in their ability to develop websites

allowing them to communicate effectively with demand markets, not only in disseminating attractive promotional messages but also in providing support for their travel arrangements (Iunius, Cismaru, & Foris, 2015).

It should be noted that as far as wine tourists is concerned, recent studies show a consumer preference for individual visits to wineries (Cunha, Kastenholz & Lane 2021, 2021), without involving intermediaries. This tendency is also evident in Portugal, where 87.4% of wine tourism experiences are sold directly (Turismo de Portugal, 2022a).

Based on the premise that one of the fundamental primary resources of any wine tourism destination is its wineries, the general aim of this study is to provide a comparative analysis of the scope of functionalities held by Alentejo's regional DMO website and a group of ten wineries located in the Portuguese wine region of Alentejo which, according to its official wine tourism guide (Almeida, 2018), offer accommodation services.

The specific objectives of this analysis were to evaluate the level of sophistication of these websites in terms of the information they provide, the communication tools they support, their transactional capabilities as well as their functions aimed at establishing meaningful relationships with prospective tourists in the process of planning a wine tourism experience. In addition, since the most competitive destinations are usually cohesive and characterised by concerted and aligned action between the various tourism agents, the analysis in question also had the additional objective of exploring possible inconsistencies between the websites of the selected wineries in terms of their capabilities and the way they communicate with their potential visitors.

## **2. Theoretical framework**

### **2.1. Destination Management Systems: Advanced destination online platforms**

Given the evidence that information and communication technologies (ICT) bring numerous benefits to the wine industry, previous studies have examined the websites of wineries and wine routes, demonstrating how fundamental they are as part of their marketing strategies (e.g. Burgess, Sellitto, & Wenn, 2005; Sellitto, Wenn, & Burgess, 2003; Nowak & Newton, 2008; Camprubí & Galí, 2015 in Barroco & Amaro, 2020). Since this study sought to assess possible similarities between the websites of a group of Alentejo's wineries, as well as of its regional online platform and the most advanced online destination information systems - known as DMS - it seems important to look at this concept in some detail.

As its name implies, main differentiating factor is precisely its strategic role in destination management. In terms of content insertion and management, another novelty of the DMS compared to traditional DMO websites was its open source Content Management System, which required the different tourist agents on it to edit and manage the areas dedicated to them on the destination's consumer-facing websites, as well as the ability to receive and process bookings from the DMS's transactional functionalities (Linaza, Lölhöff, Garcia, Lamsfus, Alzua-Sorzabal, & Lazkano, 2008). Therefore, one of the determinants of the successful implementation of a DMS would be not only the e-readiness of the DMO but also of the whole range of tourism agents in the destination, whose own online platforms should be integrated with the destination's pivotal platform (the DMS) (Frew & Horan, 2007). When successful, the adoption of DMSs has proved to be particularly advantageous to tourist destinations with market failures, especially those located in inland regions and with a markedly rural character, where the dispersion and small size of the offer tends not to arouse the interest of the big tourist intermediaries (Stratigea & Giaoutzi, 2017). However, many - if not most - of the DMOs that have tried to adopt DMS have failed to do so (Sigala, 2009).

Authors such as Ndou and Petti (2007) attribute the high failure rate of DMS adoption to two main factors, namely: (i) the traditional lack of digitalisation of various tourism sub-sectors, especially in inland destinations; (ii) the fragmentation and consequent lack of cooperation in many tourist destinations. Indeed, although DMS support intra-destination cohesion and cooperation, a relatively high level of cohesion is required to be able to adopt them successfully, in the first place (Ndou & Petti, 2007).

At a conceptual level, despite the efforts of various researchers to define exactly what a DMS consists of, there is still no consensually accepted definition, especially when it comes to defining the boundaries of what can and cannot be considered as one of these systems (Estêvão, Carneiro, & Teixeira, 2020). For example, although most definitions of the DMS concept refer to: (i) its transactional functionalities, which allow ordinary users to purchase tourism products via the destination's official platform; (ii) its extranet, which allows and requires the different suppliers represented in the DMS to manage their own content; (iii) the intranet of a DMS, which allows for better communication between departments in a DMO, would the lack of one of these features by a DMO information system discard them as being DMS? On the other hand, since the definitions of this concept tend to emphasise the need for DMSs to be adopted by the majority of tourist agents in a destination that adopts them, at

what level of representativeness of the destination's offer in one of these systems will it be possible for it to be considered a DMS?

Most of the research into DMSs was concentrated in the first decade of the 21st century, followed by a period of almost a decade in which few studies were carried out on this type of system, without a clear, precise and consensual definition of the concept of DMS having been established. However, as research into smart tourism destinations began to give particular importance to the strategic-relational levels of this type of destination, at the end of the first decade of the 2000s, there was a resurgence of the concept, with Ivars-Baidal, Celadrán-Bernabeu, Mazón, & Perles-Ivars (2019) suggesting that the recently coined concept of Smart Tourism Destinations opens new horizons to DMSs as focal points where tourists can have access to social media on the destination, as well as obtain mobile applications or tailor-made information enabling them to establish dynamic relationships with destinations.

In one of the most recent attempts to define this concept, drawing from both previous definitions and previous research, as well as an extensive empirical study of these platforms and corresponding stakeholder practices, Estêvão et al. (2020) suggest that DMSs are the ICT infrastructure of a DMO, establishing a cooperation network with and amongst local tourism players and generating meaningful customer interactions, ultimately acting as a facilitator to achieve the strategic development goals of the destination. The same authors add that DMSs integrate the whole array of tourism products of a destination, enabling tourists to search and often, but not necessarily, purchase them through an official one-stop-only platform.

In an attempt to create indicators for evaluating their performance, Li and Wang (2010) proposed an evaluation model that groups the functionalities of DMSs according to four dimensions that, according to the authors, these systems should provide to users of the respective consumer-facing website, namely (i) informational; (ii) communicational; (iii) transactional; (iv) relational.

According to Wang and Russo (2007), the informational and communicational dimensions include content and functionalities that are common to most destination websites, even the less dynamic ones, since practically all of them contain information about destinations and their attractions (informational dimension), as well as offering users the possibility of contacting representatives of the Destination Management Organisation (communicational dimension). The relational dimension is less common on official destination websites and generally involves the development of user-generated-content (UGC) tools on the official

destination websites themselves, such as forums or blogs, which allow potential and past tourists to interact and exchange experiences with the tourist offer represented there. However, the dimension that really sets DMS apart from other destination web applications is the transactional one (Estêvão, Carneiro, & Teixeira, 2012). In fact, it is the ability not only to promote a destination and its offers, but also to market products directly to the end customer via the official destination web application, that differentiates DMSs from other technological platforms in their relationship with tourist demand (Ammirato, Felicetti, Della Gala, Raso, & Cozza, 2018).

## **2.2. Wine tourism and the profile of the wine tourist**

Wine tourism represents a particular type of tourism, whose main feature is provided by the wine and the wine-production landscape (Salvado & Joukes, 2021). As wine tourism is an activity that takes place mainly outside urban areas, it is often associated with rural areas and agriculture and lies at the intersection of the wine production and tourism sectors (Cunha, Kastenholz, & Lane, 2021). It has become an essential element to the economic vitality of these territories, namely by increasing employment and tourism demand and attracting new investments (Carvalho, Kastenholz, & Carneiro, 2021a; Kastenholz & Figueiredo, 2014; Hall, 2000 in Salvado & Joukes, 2021). In addition, wine tourism has been one of the main assets in attracting tourists to rural areas, spurred by curiosity about wine-growing territories, their products, traditions, landscapes and people (Cunha, Kastenholz, & Lane 2021, 2021).

Definitions in the literature highlights that typical wine tourism experiences include activities based on wine tastings (Carvalho, Kastenholz, & Carneiro, 2021b), visits to vineyards, wineries, wine fairs and other related events where tastings take place (Colombini, 2015), visits to wine museums, wine houses and wineries (Santos, Ramos, Almeida, & Pavón, 2019), as well as festivals and wine-related events (Cunha, Kastenholz, & Lane 2021, 2021). However, several authors argue that wine tourism does not end with the experience of tasting wine (Carvalho, Kastenholz, & Carneiro, 2021a; Holland et al., 2014; Kastenholz, Cunha, Eletxigerra, Carvalho, & Silva, 2021) and, together with other local products and resources, such as gastronomy, landscape, architecture, among others, contributes to a more competitive and diversified offer for the territories.

Wine is at the centre of the experience and, as Carvalho et al. (2021a, p. 2) argue, "wine itself is the core product of wine tourism experiences and, in addition to the specific characteristics of the terroir, it is often perceived as a distinctive asset that can contribute to a rich sensory

experience where all the senses (taste, smell, hearing, touch and sight) are stimulated". Therefore, the wine tourism experience comprises the interplay of many factors such as wine tastings, staff, cellar door visits and sales, entertainment, education, and aesthetics (Santos, Ramos, Almeida, & Pavón, 2020).

Regarding the evolution of the profile of tourists, previous research suggests it is aligned with trends shared by more sophisticated segments of the demand, as they (i) seek for differentiating experiences; (ii) value experiences that allow them to restore their physical and mental balance; (iii) are more aware of the conduct of companies and destinations in terms of sustainability; (iv) demand safe destinations; (v) assume a more rational, thoughtful consumption behaviour that favours options more likely to guarantee good value for money (IPDT, 2022; IPDT, 2023); (vi) prefer experiences based on local cultures of host communities (World Economic Forum, 2022); (vii) are heavily dependent on technology, not only in the planning phase of the trip, but also during the trip.

According to various studies, wine tourists generally have both (i) higher levels of formal education and (ii) purchasing power (Akdag, Oyan & Kastenholz, 2017); (iii) seek to learn more about the world of wine and enjoy both the wine and the gastronomy of the region (Pina, 2010; Turismo do Alentejo e Ribatejo, 2018; Turismo de Portugal, 2022b). These niche tourists are mostly motivated to (i) getting acquainted with specific local wineries on site (the history of the property, the producer, the vineyards, the winery, the people who work there); (ii) learning about the environmental and ecological aspects of wine production; (iii) getting to know the countryside (the landscape, the inhabitants, farming practices, the region); (iv) practising leisure activities (harvesting, visiting the winery, tasting wines); (v) enjoying the local heritage, culture, architecture and art; (vi) experiencing the local lifestyle, elegance and well-being (Turismo do Alentejo e Ribatejo, 2018; Turismo de Portugal, 2022b).

### **2.3. Context of the study: The Alentejo region**

While most visitors to Portuguese wineries tend to be casual and moved by curiosity (57%), one smaller but relevant portion (15%) is considerably knowledgeable, and travel specifically to visit wineries (Turismo de Portugal, 2022b). For this latter type of tourists, wine tourism is the *raison d'être* of their carefully planned trip. Consequently, they have higher expectations both about the wines they will taste as the knowledge they will receive about them, demanding for a deeper and more specialized interpretation and communication strategy from



the wineries (Turismo do Alentejo e Ribatejo, 2018). The remaining 28% are a combination of both.

According to Turismo de Portugal's (2022a) study of 458 wine-producing companies, more than 50% of visitors to wineries in Portugal come from the international market, with the USA (19.14%) and Brazil (16.01%) leading the demand for this product. Visitors travelling with groups of friends are the most common (63.26%), followed by individual customers (53.49%), families without children (51.63%), families with children (38.14%) and other groups (24.19%). The predominant age group is 45 to 54 years old (77.2%), while the months when wineries are most visited are July, August and September. Most visits take less than a day (55.8%) and the most popular activities they offer are wine tastings, followed by guided tours and gastronomic services.

In terms of motivations, it is estimated that between 15 and 20% of visitors to wine tourism establishments seek them out deliberately and exclusively. As such, it is very common for visits to wine tourism centres to be paired with other tourist attractions that complement the visitor's experience of the area. Among the various attractions associated with wine tourism, and which were most mentioned by the managers of the units surveyed, are the landscape and natural values and gastronomic experiences (Turismo de Portugal, 2022a).

According to the same source, as far as supply is concerned, it should be emphasised that digital communication is widely used by companies in this business. The ease of reaching the consumer public directly, as well as the projection of commercialised brands, are the factors that motivate the use of these technologies. It should be noted that 95% of companies have websites in Portuguese and English. The use of social media to engage with current and potential customers, mainly in their corresponding official pages, is also widespread among wine tourism suppliers, with a predominance of Facebook (99.5%) and Instagram (95.02%) (Turismo de Portugal, 2022a).

Although Portugal is one of the countries in Europe where tourism contributes the most to national GDP (Costa, 2021), this sector has a number of market failures that, according to result from five excessive concentrations: (i) at territorial level (more than 60% of the supply and demand for tourist accommodation is concentrated in its two smallest NUTS II, Lisbon and the Algarve); (ii) motivational (predominantly sun and beach); (iii) seasonal (around 40% of annual overnight stays by international tourists are concentrated in the three summer months); (iv) external source markets (the British and Spanish markets alone account for 27%

of overnight stays in tourist accommodation); (v) dependence on external intermediaries (tour operators) to market their tourist offer, which seems to be the main cause of the remaining four concentrations (Andraz, Norte, & Gonçalves, 2015). This scenario is particularly unfavourable for regions in the interior of the country, with low population density and a markedly rural character (Kastenholz, Eusébio, & Carneiro, 2018).

Located in the south and centre-south of the country, NUTS II Alentejo seems to be the paradigm of this type of territory, which leads it to be one of those that suffers most from the aforementioned excessive concentrations. Thus, despite being the largest NUTS II in geographical terms (with 33% of its territory), the Alentejo has only 7% of its population (Statistics Portugal, 2022) and only 4% of the total overnight stays recorded in Portugal in 2022 (Statistics Portugal, 2023). These data suggest that, as well as being a socio-economically depressed region in the context of an already peripheral country in Europe, its tourist activity is even less developed. This seems paradoxical given that the Alentejo is usually considered a region with high tourism potential, above all because its relative socio-economic stagnation has made it a repository of landscapes, traditions and lifestyles that are difficult to find in the rest of the country (Marujo, do Rosário Borges, & Serra, 2020).

However, among Alentejo's tourist offerings, its wine tourism has been standing out on the national scene. An example of this is the fact that, despite not being the most renowned wine-growing region or the one with the long wine-growing tradition (behind regions such as Douro or Dão, respectively located in the North and Centre-North of the country), it is a fact that, in a selection of wine tourism units of excellence carried out by the Portuguese national DMO (Turismo de Portugal) and by the most prominent Portuguese periodical for tourism professionals (Victor, 2024), the Alentejo was the region with the highest number of selected offers. Thus, compared to the rest of the country, wine tourism is certainly one of the types of tourism in which the Alentejo is most competitive (Lavandoski, Vargas-Sánchez, Pinto, & Silva, 2018).

According to the research that has been carried out on the most advanced official tourist destination platforms - such as DMS - which postulate that they are more relevant and necessary in destinations with market failures in terms of visibility and distribution channels (Stratigea & Giaoutzi, 2017), Alentejo is one of the Portuguese regions where it seems most justified to adopt this type of platform.

### 3. Methods

Using the model for evaluating websites proposed by Li and Wang (2010) discussed above, this study aims to begin by analysing the functionalities dedicated to wine tourism on the official portal of the Alentejo regional DMO, according to their dimension (informational, communicational, transactional, relational). The general aim of this first analysis was to understand how close or far the functionalities supported by the current official platform of the Alentejo destination are from those that should be made available to users by destination websites integrated into a DMS.

Subsequently, since, on the one hand, the adoption of a DMS requires a coherent and balanced level of digitisation on the part of the various agents of a tourist destination and, on the other, the official websites of the companies that are members of a DMS are expected to communicate with it, feeding it with content, it was considered relevant to extend this content analysis to a total of ten wineries in the Alentejo with wine tourism offers which, among the products inherent to this type of tourism, also included tourist accommodation, according to the most recent edition of the Wine Tourism guide published by the regional DMO (Almeida, 2018). This selection criterion seemed appropriate for several reasons, namely because (i) only wineries with accommodation generate tourists themselves, rather than one-day visitors; (ii) the greater range and diversity of functionalities usually inherent to booking tourist accommodation, unlike other wine tourism services, which mostly have an informational nature.

The analysis undertaken was therefore qualitative in nature. However, since the empirical analysis in question did not focus on the textual content of the platforms studied, but rather on identifying the types of functionalities present or absent from them according to the model proposed by Li and Wang (2010), it was not considered pertinent to use any specific software commonly used in qualitative content analyses.

Specifically, in addition to the official website of the Alentejo regional DMO ([www.visitalentejo.pt](http://www.visitalentejo.pt)), the empirical study was applied to all ten websites of the following wine tourism wineries that include tourist accommodation listed in the official wine tourism guide of the Alentejo regional DMO (Almeida, 2018):

- Herdade da Calada (<https://www.herdadecalada.com/>), municipality of Évora;
- Herdade da Malhadinha Nova (<https://www.malhadinhanova.pt/pt/>), municipality of Beja;
- Herdade do Sabroso (<https://www.herdadedosobroso.pt/>), municipality of Vidigueira;

- Herdade dos Grous (<http://www.herdadedosgrous.pt/pt/>), municipality of Beja;
- Herdade do Vau (<https://www.herdadedovau.com/>), municipality of Serpa;
- L'And Vineyards, (<https://pt.l-and.com/>), municipality of Montemor-o-Novo;
- Monte da Comenda Grande (<https://comendagrande.pt/de/>), municipality of Arraiolos;
- Quinta da Plansel (<https://www.plansel.com/>), municipality of Montemor-o-Novo;
- Torre de Palma Wine Hotel (<https://www.torredepalma.com/>), municipality of Monforte;
- Vila Galé Alentejo Vineyards (<https://www.vilagale.com/pt/hoteis/alentejo/vila-gale-alentejo-vineyards>), municipality of Beja.

It should be noted that the universe of features sought on each website analysed did not seek an exhaustive identification of those that could be supported by a traditional destination or tourist attraction website, which could easily result in hundreds of features (Estêvão et al., 2020), but rather the thirty-nine that were considered by previous studies (Li & Wang, 2010; Estêvão et al., 2012) to be the most representative of each of the four dimensions analysed (informational, communicational, transactional, relational).

#### 4. Results

Table 1 shows the functionalities attributed to each of the four dimensions considered, as well as the platforms on which they were identified following the content analysis undertaken. A first relevant result that emerges from the content analysis is the mismatch between the website of the Alentejo DMO (hereafter referred to as DMO-A) and the websites of the ten wineries selected for this study (hereafter referred to as Wineries-A) in terms of the weight of the four dimensions.

As far as DMO-A is concerned, the relative weight of the four dimensions of functionalities is in line with the results of previous studies that have considered them (Chek & Lei, 2020; Estêvão, Carneiro, & Teixeira, 2022; Pai, Xia, & Wang, 2014), with the most represented being informational (n=16, i.e. 94% of the seventeen functionalities considered in this dimension). As expected, the second most represented dimension in DMO-A was communicational (n=3, i.e. 50% of the six functionalities in this dimension), and the third and penultimate most represented was relational (n=5, i.e. 45% of the eleven functionalities included in this dimension). No transactional functionality was identified in DMO-A, something which, according to previous research into DMSs, would make it impossible to be considered a DMS from the outset (Buhalis & Spada, 2000; Estêvão et al. 2012).

Table 1. Functionalities identified in the analysed websites

Dimensions and corresponding functionalities	Visitalentejo (DMO website)	Alentejo wineries whose websites were analysed (n=10)										
		% of the 10 selected wineries	Herdade da Calada	Herdade da Malhadinha Nova	Herdade do Sobroso	Herdade dos Grous	Herdade do Vau	L'and Vineyards	Monte da Comenda Grande	Quinta da Plansel	Torre de Palma	Vila Galé Alentejo Vineyards
Information dimension (17 functionalities)												
Wine tourism area	X	70	n/a	X	X	X	n/a	X	n/a	X	X	X
Attraction information	X	70	n/a	X	X	X	X	X	n/a	X	X	n/a
Activities information	X	60	n/a	X	X	X	n/a	n/a	n/a	X	X	X
Maps and directions	X	60	n/a	X	X	X	n/a	n/a	n/a	X	X	X
Wine production background	X	80	n/a	X	X	X	X	X	n/a	X	X	X
Themed products	X	70	n/a	X	X	X	n/a	X	n/a	X	X	X
Transportation/access information	X	10	n/a	n/a	n/a	n/a	n/a	X	n/a	n/a	n/a	n/a
Events calendar	X	20	n/a	n/a	n/a	n/a	n/a	n/a	n/a	X	n/a	X
Restaurant information	X	60	n/a	X	X	n/a	n/a	X	n/a	X	X	X
Accommodation information	X	70	n/a	X	X	n/a	X	X	n/a	X	X	X
Travel packages	n/a	20	n/a	X	n/a	n/a	n/a	n/a	n/a	n/a	X	n/a
Entertainment information	X	50	n/a	X	X	n/a	n/a	X	n/a	X	X	n/a
Local weather information	X	50	n/a	X	X	n/a	n/a	n/a	n/a	X	X	X
Shopping information	X	40	n/a	X	X	n/a	n/a	n/a	n/a	X	X	n/a
Travel tips	X	40	n/a	X	X	n/a	n/a	n/a	n/a	X	X	n/a
Trip/vacation planner	X	10	n/a	n/a	X	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Linked to regional/city/area pages	X	20	n/a	X		n/a	n/a	n/a	n/a	n/a	X	n/a
<b>Subtotal</b>	<b>n=16; 94%</b>	<b>Average=47%</b>	<b>0</b>	<b>n=14; 82%</b>	<b>n=13; 76%</b>	<b>n=6; 35%</b>	<b>n=3; 18%</b>	<b>n=8; 47%</b>	<b>0</b>	<b>n=13; 76%</b>	<b>n=14; 82%</b>	<b>n=9; 53%</b>
<b>Communication dimension</b> (6 functionalities)												
Search function	X	80	n/a	X	X	X	X	X	n/a	X	X	X
Interactive communication tools	n/a	30	n/a	X	X	n/a	n/a	n/a	n/a	n/a	n/a	X
Online forum	n/a	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Dimensions and corresponding functionalities</b>	<b>VisitAlentejo (DMO website)</b>	<b>Alentejo wineries whose websites were analysed (n=10)</b>										
		<b>% of the 10 selected wineries</b>	<b>Herdade da Calada</b>	<b>Herdade da Malhadinha Nova</b>	<b>Herdade do Sobroso</b>	<b>Herdade dos Grous</b>	<b>Herdade do Vau</b>	<b>L'and Vineyards</b>	<b>Monte da Comenda Grande</b>	<b>Quinta da Plansel</b>	<b>Torre de Palma</b>	<b>Vila Galé Alentejo Vineyards</b>
Comment box	X	50	n/a	X	X	n/a	n/a	X	n/a	X	n/a	X
Online survey	n/a	10	n/a	X	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Email newsletter	X	60	n/a	X	X	n/a	n/a	X	n/a	X	X	X
<b>Subtotal</b>	<b>n=3; 50%</b>	<b>Average=38%</b>	<b>0</b>	<b>n=5; 83%</b>	<b>n=4; 67%</b>	<b>n=1; 17%</b>	<b>n=1; 17%</b>	<b>n=3; 50%</b>	<b>0</b>	<b>n=3; 50%</b>	<b>n=2; 33%</b>	<b>n=4; 24%</b>
<b>Transaction dimension</b> (functionalities)												
Accommodation online reservation	n/a	70	n/a	X	X	n/a	X	X	n/a	X	X	X
Secure transaction	n/a	70	n/a	X	X	n/a	X	X	n/a	X	X	X
Attraction/activities booking	n/a	30	n/a	n/a	n/a	n/a	n/a	X	n/a	X	X	n/a
Events reservations	n/a	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Shopping carts	n/a	50	n/a	X	X	n/a	n/a	X	n/a	X	X	n/a
<b>Subtotal</b>	<b>0</b>	<b>Average=44%</b>	<b>0</b>	<b>n=3; 60%</b>	<b>n=3; 60%</b>	<b>0</b>	<b>n=2; 40%</b>	<b>n=4; 80%</b>	<b>0</b>	<b>n=4; 80%</b>	<b>n=4; 80%</b>	<b>n=2; 40%</b>

<b>Relationship dimension (11 functionalities)</b>												
Personalisation	X	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Feedback/complaints handling	n/a	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Best deals	X	50	n/a	X	X	n/a	n/a	n/a	n/a	X	X	X
Virtual tours	X	10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	X	n/a
Cross-selling opportunities	n/a	50	n/a	X	X	n/a	n/a	X	n/a	X	n/a	X
Privacy policy	X	60	n/a	X	X	n/a	n/a	X	n/a	X	X	X
Special offers	n/a	60	n/a	X	X	n/a	n/a	X	n/a	X	X	X
Web seal certification	n/a	30	n/a	X	X	n/a	n/a	n/a	n/a	n/a	X	n/a
Customer loyalty programs	n/a	30	n/a	X	n/a	n/a	n/a	n/a	n/a	n/a	X	X
Incentive programs	n/a	20	n/a	X	n/a	n/a	n/a	n/a	n/a	n/a	X	n/a
Links to winery's social media	X	80	n/a	X	X	X	X	X	n/a	X	X	X
<b>Subtotal</b>	<b>n=5; 45%</b>	<b>Average=35%</b>	<b>0</b>	<b>n=8; 88%</b>	<b>n=6; 55%</b>	<b>n=1; 9%</b>	<b>n=1; 9%</b>	<b>n=4; 36%</b>	<b>0</b>	<b>n=5; 45%</b>	<b>N=8; 88%</b>	<b>n=6; 55%</b>
<b>Overall Total (39 functionalities)</b>	<b>n=24; 62%</b>	<b>Total Av.= 41%</b>	<b>0</b>	<b>n=30; 77%</b>	<b>n=26; 67%</b>	<b>n=8; 21%</b>	<b>n=7; 18%</b>	<b>n=19; 49%</b>	<b>0</b>	<b>n=25; 64%</b>	<b>n=28; 72%</b>	<b>n=21; 54%</b>

In the case of the ten wineries selected for this study, the relative weight of each dimension was different. Although, as expected, the informational dimension was, as in DMO-A, the most represented, with an average of 47% presence of the respective eleven functionalities in all the Wineries-A analysed, the transactional dimension went from being completely absent in DMO-A, to the second most identified in Wineries-A, with an average of 44% presence of the transactional functionalities considered in the ten winery online platforms analysed. Surprisingly, in Wineries-A the communicational dimension lagged behind the transactional one and just ahead of the relational one, with an average presence of only 38% across all ten online platforms.

Taking a closer look at the specific functionalities within each of the four dimensions, the only one of an informational nature that was absent from DMO-A was content about travel packages, something that could be explained by the fact that the online promotion of these products is usually associated with their sale (Verhun, Buntova, Boretska, Borysova, & Shevchuk, 2022), through transnational functionalities that, as it turned out, do not exist on this platform.

With regard to the communication dimension of the DMO-A, there is a noticeable lack of basic functionalities, such as interactive tools (e.g. chat), a forum, which would allow the development of UGC, considered one of the most reliable sources of information on DMO websites for potential visitors (Yuan, Chan, Eichelberger, Ma, & Pikkemaat, 2022). In terms of the relational dimension of DMO-A, we highlight the possibility of personalising content in the form of wish lists available in a travel planner, as well as the possibility of accessing virtual tours in various parts of the Alentejo. However, this dimension lacks opportunities for cross-selling regional products with links to tourism, such as handicrafts. Also absent from DMO-A is any customer loyalty or incentive programme, perhaps because these are usually associated with transactional functions that this platform lacks. Given the importance of online tools that support the building of meaningful relationships between destinations and current and potential visitors (Estêvão et al., 2012; Viglianisi & Rugolo, 2021), the scant presence of relational features in DMO-A further distances it from being anything more than a predominantly promotional electronic brochure.

With regard to the ten Wineries-A studied in this article, it seems relevant to begin by mentioning that two of them did not offer any of the thirty-nine functionalities considered, for different reasons. In one of them, belonging to Herdade do Calado, the authors experienced malfunctions for the entire fifteen days of analysing the content of the online platforms. Each



attempt to visit this website did not allow them to go beyond its homepage, mainly due to warnings of virus infection and the numerous pop-up adverts that invaded the screen. Contacted by telephone by the authors, the management confirmed this anomaly which, according to this source, would be resolved shortly. A second website, from Adega Monte da Comenda Grande, although not malfunctioning, consisted only of a static homepage that only contained a panoramic photo of the property, its logo and promotional slogan, as well as email and telephone contact details.

As far as the remaining eight Wineries-A are concerned, their different levels of development are noticeable, especially when it comes to the more advanced dimensions, such as transactional and relational. One of these websites - Vila Galé Alentejo Vineyards - is considerably different in nature and structure from the others, as it is a website that includes all the accommodation units of a Portuguese hotel chain (Vila Galé Hotels), which only dedicates one area to their own winery in Alentejo and to its respective wine tourism offerings.

As illustrated in Table 1, of the ten A-Wineries, Herdade da Malhadinha Nova (n=30, i.e. 77% of the total), Torre de Palma Wine Hotel (n=28, i.e. 72%), Herdade do Sobroso (n=26, i.e. 67%) and Quinta da Plansel (n=25, i.e. 64%) stood out for having the most functionalities out of the total of thirty-nine. In an intermediate position in terms of the quantity and sophistication of their functionalities were the websites of Vila Galé Alentejo Vineyard (n=21, i.e., 54%), and L'and Vineyards (n=19, i.e., 49%). In addition to the aforementioned websites for Herdade da Calada and Monte da Comenda Grande, Herdade dos Grous (n=8, i.e. 21%) and Herdade do Vau (n=7; 18%) had virtually no transactional or relational features.

In terms of information features, none were absent from all the A-Wineries. The least represented on these websites were trip/vacation planners, only supported by the Herdade do Sabroso website, as well as information on access and transport, only available on the L'And Vineyards website. Only two websites had links to local and/or regional DMO pages (Herdade da Malhadinha Nova and Torre de Palma Wine Hotel) and event calendars (Quinta da Plansel and Vila Galé Alentejo Vineyards). With regard to this last type of content, it should be emphasised that these calendars only referred to events at the wine tourism resort itself and not elsewhere in the destination. The absence of these four types of content from the majority of the Wineries-A analysed, which instead of being centred on the wine tourism unit, include the offers of agents with complementary offers, in line with the mindset that is essential to the implementation of DMS and the development of a smart destination, suggests

low levels of cooperation and coordination within wine tourism in the Alentejo region, typical of fragmented destinations (Gomis-López & González-Reverté, 2020; Ndou & Petti, 2007). Conversely, the most abundant information content identified in the ten A-Wineries refers directly to the characteristics and services of the wineries themselves, such as Information on Attractions, the Wine Tourism Area and, above all, Accommodation Information.

As far as communication features are concerned, it is notable that there are no forums that allow peer-to-peer interaction through the insertion of comments by website users, which could strengthen UGC content and thus the reliability of the information provided. On the other hand, only one website offered users the chance to fill in an online questionnaire (Herdade da Malhadinha Nova). This is out of line with what Assimakopoulos, Papaioannou, Sarmaniotis, and Georgiadis (2015) consider to be good practice in the context of hospitality, where guests should be encouraged to answer satisfaction questionnaires and suggest improvements by filling in online forms for this purpose, which not only support the continuous improvement of the service but also make customers feel that their opinion is relevant. Conversely, the information feature most extensively adopted by the Wineries-A analysed was the Search Function, certainly the most basic of all, only absent from the Herdade da Calada and Monte da Comenda Grande websites, for the reasons mentioned above.

In terms of the transactional dimension, apart from the two websites that didn't have any of the thirty-nine functionalities analysed in this study, only Herdade dos Grous didn't have an online booking system for wine tourism. Strangely enough, although they don't offer reservations on their websites, it is possible to book accommodation at these three wineries through OTAs such as Booking. Of the five types of transactional wine tourism features considered in the content analysis, only Events Reservations was not found in any of the ten A-Wineries. On the other hand, the most frequently identified transactional features on these platforms were Accommodation Online Reservation and Secure Transactions, both available on seven of them. As for the wineries whose websites contained the greatest diversity of transactional features, L'And Vineyards, Quinta da Plansel and Torre de Palma Wine Hotel stood out, each with the same four (Accommodation Online Reservation; Secure Transactions, Attractions/Activities Booking; Shopping Carts).

Lastly, as previously mentioned, this dimension is the least supported by all the A-Wineries, possibly because, according to previous research which sought to evaluate the presence of each of the four dimensions considered in this article, it is the hardest to implement because it

requires the best qualified human resources and the largest financial resources (Pai, Xia, & Wang, 2014). It seems relevant to point out that, unlike the DMO-A, content Personalisation, one of the most advanced and relevant relational functionalities (Anshari, Almunawar, Lim, & Al-Mudimigh, 2019) is absent from each of the ten Wineries-A. This is also the case with Feedback/Complaints Handling tools, the development of which Fait, Scorrano, Cavallo, and Iaia (2016) consider essential in the context of online platforms for wine tourism. By far the most represented feature in the Wineries-A analysed (n=8), as well as the easiest to make available out of the eleven in this dimension.

## 5. Conclusion

This study was a first attempt to explore a possible match between the profile of the consumer and the needs of destinations in the context of wine tourism and with the advantages inherent in the adoption of advanced online platforms such as DMS. The authors' review of the literature suggests that wine tourists' levels of sophistication, which lead them to prefer to make more autonomous travel arrangements, without the need for intermediaries and in direct contact with the agents offering the respective destinations, are in line with the types of tourists who usually use DMSs to plan their trips.

On the other hand, since most wine tourism destinations are located in rural, peripheral regions and are at a somewhat embryonic stage in their tourism development, they don't usually attract the interest of tourism intermediaries. As such, for the sake of their competitiveness, these types of destinations are required to establish their own distribution channels, either through Destination Management Companies (DMCs) or through the destination's official online platforms with reservations and Customer Relationship Management components. DMSs are particularly relevant in this type of scenario, where market failures caused by the weak presence of peripheral destinations in the global market justify an expanded role for the DMO, which now acts as a facilitator of tourism distribution and the destination's relationship with the market. Thus, it seems clear that there is a match between the profile of wine tourists, the needs and challenges of wine tourism destinations and the advantages provided by DMS, when their adoption is successful. An example of this match is the fact that one of the most successful DMSs in North America is precisely Napa Valley, its most prominent wine tourism destination (Scorrano, Fait, Maizza, & Vrontis, 2019).

With regard to the empirical analysis consisting of a content analysis of the official website of the Alentejo regional DMO and the websites of the ten wine tourism wineries in the region with tourist accommodation, it was possible to verify considerable gaps that certainly hinder the development of Alentejo wine tourism. Firstly, as far as the regional DMO's website is concerned, the total absence of any transactional functionality is particularly noticeable, which would still be understandable if there wasn't a market failure in this region which, in 2022, led to the lowest hotel occupancy rates in Portugal, at around 20%, average stays of less than one night (less than half the national average) and the second lowest regional Revenue per Available Room in the country (Statistics Portugal, 2023). On the other hand, the Alentejo DMO's regional website only had a limited set of basic relational features, which do not allow for the creation and maintenance of relationships between the destination and its current and potential customers, an increasingly essential condition for ensuring the sector's competitiveness, especially in niche markets such as wine tourism (Kiráľová, & Pavlíčka, 2015).

With regard to the ten websites of the Alentejo wineries analysed, there is a considerable gap between the size of their functionalities, their diversity and, above all, their sophistication. Thus, while two websites don't have features that go beyond basic information about their offer, a group of four wineries already offer a considerable range of online booking options, not just for accommodation but also for wine tourism experiences. However, in terms of the relational dimension, a very superficial and elementary adoption of its functionalities was noteworthy, as well as the absence of those that would have the most potential to foster a meaningful relationship with this niche market, such as content personalisation.

In terms of its theoretical implications, this study adopts an original perspective on two levels. Firstly, by applying a four-dimensional website evaluation model, which until now had only been applied to DMO websites, to a group of wineries. This seems pertinent given that tourism websites should be coherent and complementary to advanced DMO sites such as DMSs. The fact that wineries may be the primary resources of wine tourism, being both attractions and amenities, reinforces the relevance of applying the model proposed by Li and Wang (2010). On a second level, this study is the first to establish a relationship between the DMS concept and the advantages it brings to the strategic management of smart destinations, the challenges wine tourism destinations face and the profile and behaviour of wine tourists. It is suggested that the potential of this relationship in terms of the sustainability and competitiveness of wine tourism destinations be further analysed, particularly by carrying out

studies into the factors that determine the adoption of more advanced online platforms by wine tourism managers.

With regard to its practical implications, the results of the article empirically demonstrate the gap and inconsistencies that exist in the online presence of one of Portugal's main wine tourism destinations. The authors suggest that tourist destinations with high wine tourism potential should develop programmes that lead to strategic coordination between the DMO's online presence in this niche market and that of its main supply agents, especially the wineries. In addition to elementary aspects such as coherence and complementarity between the websites of the different suppliers, such programmes ought to demonstrate to them the decisive importance, for the competitiveness of the tourism business and of the destination as a whole, of adopting advanced relational features such as content personalisation.

Ultimately, research on DMSs should also include the study of specific requirements and methods for the successful implementation of these systems in specialised wine tourism destinations.

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