Examining the Progress of the Dão Wine Route **Wineries' Websites**

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Abstract | In 2010 Amaro, Barroco and Antunes carried out a study that analysed the use of Information and Communication Technologies as an essential tool for the development of the Dão Wine Route. They examined the presence of the 35 members of the Route on the Internet and the quality of their websites. The results demonstrated that few members used websites to promote their services, compromising the whole network. Now that almost ten years have passed, it is time to update this analysis and examine what has changed. As a region that wants to position itself as a tourism destination of choice, where Wine Tourism is one of the key offers, it is of paramount importance to examine how the now 46 members of the Route have been using their webpages as a Marketing strategy. A content analysis of these winery's Websites was conducted, and the results were compared with those obtained in 2010. These show that although some progress has been made, there are still many areas that require improvements. The paper provides practical recommendations, useful not only for the wineries of the Dao Wine Route, but also for other wineries and wine routes.

Keywords | Wine Tourism, Wine Routes, Webpages, Websites, Wineries

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1. Introduction

Wine tourism is an important activity in many wine-producing countries (Hojman & Hunter-Jones, 2012) and is a significant tourist attraction in some of these countries, such as France, Italy, Spain and the United States of America (Jaffe & Pasternak, 2004). Wine routes are core attractions in wine tourism and are an integral part of the wine tourism industry (Bruwer, 2003; Novais & Antunes, 2009). Furthermore, studies have shown that wine routes have a significant social and economic impact on farms, increases the profitability of existing activities (Brunori & Rossi, 2000).

Recognising that new technologies had numerous benefits for the wine industry, many studies have examined winery's and wine route's Websites and have provided evidence on how fundamental they are as part of winery's marketing strategies (e.g. Burgess, Sellitto & Wenn, 2005; Sellitto, Wenn & Burgess, 2003; Nowak & Newton, 2008; Camprubí & Galí, 2015).

One of those earlier studies was conducted by Amaro, Barroco and Antunes (2010). Their study examined Websites of winery's that belonged to an important wine route in Central Portugal, the Dão Wine Route (DWR). The results of their study were rather disappointing since the members did not seem to worry about their presence on the Internet. Indeed, almost half of the 35 members at the time did not even have a Website. The members that did have a Website needed to significantly improve it since it lacked information and interactivity. For instance, it was not possible to purchase wine on any of the websites. Despite social media being at the time an important marketing tool, only three members had a Facebook page and only one of them mentioned it on their website. None of the existing Websites provided links to other members or wine-related organizations and only one member had information regarding the Dão region. In sum, members were not efficiently using their Websites to promote their services, compromising the whole network. Many improvements were necessary to make the route more competitive and well-know.

The main purpose of the current study is to continue the previous work of these authors and examine the evolution of the Dão Wine Member's websites in the past ten years. The website features that were examined now are the same ones analysed in 2010. It is, therefore, a longitudinal study that provides information on the importance members of the DWR have given to their Websites.

2. Theoretical framework: Wine Routes

Hall, Johnson, Cambourne, Macionis, Mitchell and Sharples (2000) provided a seminal definition of wine tourism as "visitation to vineyards, wineries, wine festivals and wine shows for which grape wine tasting and/or experiencing the attributes of a grape wine region are the prime motivating factors for visitors" (p. 3). Wine tourism complements traditional tourist products and serves as a means of opening new destinations in areas uninvolved in tourism-related activities (López-Guzmán, Sánchez & García, 2009). It is also a possibility of survival for many wineries, in years of poor wine performance (Hojman & Hunter-Jones, 2012). It is evident that wine tourism is much more than wine tasting. It can be considered an experience, as highlighted in Barth and Salazar's (2010) definition of wine tourism being "travel for the purpose of experiencing wineries and wine regions and their links to lifestyles" (p. 2).

It is precisely in this context, also assumed by the project TWINE (Kastenholz & Carneiro, 2018), which inspired some of the here presented reflections, that wine routes have an important role in providing complex tourist experiences. Indeed, tourists who follow a wine route enjoy a wide variety of experiences: they visit a wine farm, taste

and purchase wine, visit a vineyard or a local museum where they learn wine traditions and history of the region (Brunori & Rossi, 2000). They can also stay at an agri-tourist accommodation, taste the culinary specialities of the area and buy typical products of the region while enjoying the landscape (Brunori & Rossi, 2000).

A wine route is an organized network established around the theme of wine landscapes (Brunori & Rossi, 2000), with public and private agents from the wine and tourism industries with the purpose of promoting regional development (Brás, Costa & Buhalis, 2010). While Bruwer (2003) states that wine routes connect several wine estates and wineries in a given area, Brunori and Rossi (2000) argue that the route can also include agri-tourist farms, producers of typical products, restaurants and local authorities. These routes are characterized by "natural attractions (mountains and other scenery), physical attractions (facilities such as wineries on wine estates), vineyards, and roads and markers (signposts) directing the tourist to the individual wine route estate enterprises" (Bruwer, 2003, p. 424). Such routes enhance the promotion of rural regions and the sales of local products (Novais & Antunes, 2009).

Some countries have developed successful wine routes despite producing wine in smaller quantities (Jaffe & Pasternak, 2004). According to López-Guzmán, Sánchez and García (2009) wine routes have increased in the past years, particularly in European countries, aiming to consolidate wine tourism in rural areas. This happened in Portugal where wine routes have become an important activity, complementing traditional tourism products and increasing wineries' wine sales.

2.1. The Dão Wine Route

The beginning of wine routes in Portugal started in 1993 when Portugal participated in the European Union's Dyonísios Interregional Coopera-

tion Programme with eight other European wine regions in France, Spain and Italy. However, it was only in 1995 that Portuguese wine routes were launched. There are now 12 wine routes in Portugal, where tourists can experience wine tourism.

One of these 12 routes is the Dão Wine Route (DWR), situated in the Center of Portugal, in the region of Dão and Lafões, was established in September of 1995 by a protocol signed by the Ministry of Tourism and other wine-related entities from this region (Amaro et al., 2010). It is divided in five different itineraries, with 46 wineries, and is promoted by the Dão Wine Regional Commission at a Wine Manor House, where there are a Welcome Desk and a wine store that sells wine produced by the members of the route. The route not only promotes Dão wine, but tourists can also taste the local gastronomy, see the beauty of the landscapes, estates and the rich historical, architectural and cultural heritage (Amaro et al., 2010). Moreover, the DWR diversifies the tourism offer and plays a relevant role in reducing seasonality (Carvalho, Barroco & Antunes, 2017).

2.2. Wine Routes and Internet

Wine tourism has become of increasing importance to the industry as it adds value in a highly competitive market (Mintel, 2017). In this competitive market, Colombini (2013) argues that the winners are those who achieve the best reputation for their wines, their hospitality, their diversity and their ability to make themselves known. Several studies have stressed the importance of the Internet for wineries to make themselves known (e.g. López-Gusman, Sánchez & García, 2009; Neilson & Madill, 2014; Platania, Rapisarda & Rizzo, 2016).

Websites are crucial for businesses because they "act as a direct bridge between the tourism organizations and tourists" (Gupta & Utkarsh, 2014, p. 154). Furthermore, the Internet is the source

that the majority of tourists use to search for travel information (Fuel, 2019). Over the years researchers have examined tourism and hospitality websites and despite the different approaches used in these studies, a common result is the undeniable value and power of a Website. Indeed, website quality has been found to affect intentions to intentions to visit (e.g. Kaplanidou & Vogt, 2006), intentions to revisit (e.g. Loureiro, 2015), , purchase intention (e.g. Abou-Shouk & Khalifa, 2017; Ali, 2016; Wang, Law, Guillet, Hung & Fong, 2015) and recommendation (e.g. Loureiro, 2015). Gupta and Utkarsh (2014) argue that the characteristics of the website influence tourists on all stages of decision making (i.e., information search, destination selection, destination visit and post visit behavior).

Despite the importance of websites, many wine routes do not take advantage of them as a valuable communication tool. For instance, Camprubí and Galí (2015) analysed the websites of wineries that belonged to the DOQ Priorat Route (a wine route in Spain), and most of the wineries had very static websites, offering the minimum amount of information. In Italy, Colombini (2013) points out that despite this country having 35,000 wineries, organized in 170 "Wine Roads", wine tourism is practically inexistent on the Internet and suggests that they need to use this tool to increase their visibility. Alonso, Bressan, O'Shea and Krajsic (2013) also found that wineries Worldwide were are not fully exploiting the potential benefits of their websites, and even less of social media.

The findings of these studies are shocking, especially considering that when deciding what wineries to visit or looking for information about them, studies have evidenced that one of the most valued information sources is the Internet, after friend's recommendations (Bruwer & Lesschaeve, 2012; Byrd, Canziani, Boles, Williamson & Sonmez, 2017). This source of information is even more important for millennials (Bruwer & Lesschaeve, 2012). Furthermore, the website quality influences tourists' intention to visit the winery and

perceptions of the quality of the wine (Nowak & Newton, 2008).

Regarding social media, research has shown that before deciding on a trip, tourists tend to look for more tourism information on social media (Narangajavana, Callarisa Fiol, Moliner Tena, Rodríguez Artola & Sánchez García, 2017). Its importance can also be seen by the significant number of studies, providing evidence that social media influences tourists' hotel choice (e.g. Varkaris & Neuhofer, 2017), tourists' behavior intentions (e.g. Perez-Vega, Taheri, Farrington & O'Gorman, 2018), hotel performance evaluations (e.g. Anderson, 2012) and may even influence tourists to change holiday plans already made (e.g. Fotis, Buhalis & Rossides, 2011).

In the wine tourism field, Viana (2016) argues that the wine industry has been one of the slowest to adopt social media, but that it is a big opportunity for them. Indeed, Thach, Lease and Barton (2016) found that wineries that had adopted social media practices increased their wine sales. Szolnoki, Taits, Nagel and Fortunato (2014) also demonstrated that Facebook was an important communication channel for German wineries not only to communicate with customers and prospective customers but also to promote products. Byrd et al. (2017) found that 68.7% would consider sharing their winery experiences via social media, with 56.1% saying that it was very likely or likely they would do so. Social media can also help to build strong international connections with wine lovers (Colombini, 2013). Despite all these benefits, wineries are not taking advantages of social media (Alonso et al., 2013).

3. Methods

A longitudinal study was carried out to examine what has changed in ten years regarding the DWR wineries' websites, comparing the results with a

study conducted earlier by Amaro, Barroco and Antunes (2010).

Website evaluations are important not only to detect areas of improvement, but also to compare sites with competitors (Morrison, Taylor & Douglas, 2005). Several approaches have been suggested to evaluate tourism and hospitality websites (see Law, Qi and Buhalis, 2010 and Sun, Fong, Law and He, 2017, for comprehensive overviews of these different methodological approaches to website evaluation in tourism and hospitality). Content analysis is one of the most common approaches (Sun, Fong, Law & He, 2017) and was chosen for the purpose of this study. More specifically, the method used was a "counting method", in which a prepared checklist is required to verify if specific attributes are on the website (Law et al, 2010). This method has been used by other researchers in the tourism and hospitality field to evaluate websites (e.g. Gupta & Utkarsh, 2014; Neilson & Madill (2014); Han & Mills, 2006). The checklist used to carry out the analysis were grouped into 12 categories: DWR and visitation mentioned on the website; availability of the website in other languages; locations and members' contacts; company's history; online store; newsletter; wine production and storage information; awards received and press releases; pictures and videos; social media; networks and the existence of links to other members' websites and ethical issues and environmental concerns. These are the same attributes examined in 2010, except ethical issues and environmental concerns that were now added to the analysis. All the criteria were measured by the dichotomy variable (yes/no) independently by both authors of the current study. Results were then compared and minor adjustments were made.

Currently, the DWR has 46 wineries. Among the 35 DWR members in 2010, 15 continue to be part, 20 left the route, which means that since then, 31 new wineries became members. In 2010, among the 35 members, only 17 had a website. Currently, among the 46 members, 44 members

have webpages. However, 4 of them are under construction, with 3 providing some contact information and 1 does not have any information. Therefore, only 40 members have active websites. The content analysis was performed on these websites in the months of October and November of 2019.

4. Results

4.1. Evolution of DWR Member's Websites

Currently, the DWR has a Website (`http://rotavinhosdao.pt`), available in Portuguese and English. The Dão Wine Regional Commission did not create a Facebook, Twitter or Instagram Page specifically for the DWR, but instead created pages on these social media called "Vinho do Dão", i.e., Dão Wines. There was, therefore, great progress since none of this existed in 2010. However, and despite the DWR website having information about the wineries and visits, it does now provide any link to the member's websites.

In 2019, a printed DWR guide was launched, with bilingual information regarding the region, wines and grape varieties and the Wine Route. According to this guide, 10 of the members offer accommodation and 5 of them also have a restaurant. However, strangely, when analyzing these members Websites, this information is not on them. Also, according to the guide, 7 members have their own restaurant, but only 4 of them mention this on their websites.

4.2. DWR and visitations mentioned on the Website

One of the most intriguing results is that 95% of the DWR members do not provide any information of the DWR on their websites. This means

that if a tourist visits their Webpage, they will not be aware that they are a member of the route. The only two wineries that do provide a link to the DWR do it in separate tabs of their Website. One of them is in the "Enotourism" Tab and the other one is the "Dão Region" Tab. Another member also has the DWR logo at the end of one of their pages in the Website, with a link to the DWR, however, only in its English version. It should be noted that two of the wineries despite not mentioning the DWR, have pictures of it. This result seems unexplainable, however, for the DOQ Priorat Route, Camprubí and Galí (2015) also found that none of the members provided information regarding the route. Wineries do not seem to understand the synergies of belonging to a route and that they can gain with its success.

Regarding tours to the wineries, only 11 members (27.5%) have a separate tab to "Wine Tourism", with information about wine programs, events, restaurants, wine stores and bars, guided tours, team building programs, workshops and venue offering services for corporate and private events.

Despite not having a specific section of Wine Tourism, 6 members have an "Events" section where this information is available (e.g. wine tasting, guided tours). It is also possible to access events where they will be exhibiting. Unfortunately, many members have outdated information.

Another winery has a section termed "Experiences", with interesting programs, such as "My Wine", "River Picnic" and "Smokehouse Day". Another member has a "Show Room" section with other typical local products of the region, workshops, wine tasting, cheese tasting and handicraft.

4.3. Websites in other languages

Twenty-five wineries (62.5%) have information available in other languages. In addition to the English language, which all of them have, 6 also have information in other languages (French, Chinese and German) and 1 has information in 7 languages (besides the ones already mentioned, it also has Spanish, Italian and Dutch).

On some websites, the information available in other languages is not the same as the original language. For instance, sometimes the information does not exist in some sections, or they are summarized. Considering that in 2010 only 9 members (47%) had information available in English, this group shows considerable improvement.

4.4. Location and Members' Contacts

Except for only one winery, all other members (97.5%) have location information, telephone and fax numbers, e-mail and address. This result is similar to Neilson and Madill's (2014) study that found that a significant proportion of wineries worldwide used their website to provide some form of contact information to wine visitors. Twenty-five of the members (62.5%) also have maps and GPS coordinates. Not much has changed when compared to 2010 since 59% at the time already provided maps and/or GPS coordinates.

4.5. Company's History

Thirty-five members (87.5%) have information regarding the company and family history, the foundation year, among other information. This item has significantly improved compared to 2010, where this percentage was only 65% (11 members). Indeed, this percentage is now very similar to Canada, California and Australia (Neilson & Madill, 2014).

4.6. Online Store

Thirty-seven members (92.5%) provide information about the wines they sell. In most of the cases, information is very detailed, with the wine's technical sheet and prices. However, only 8 wineries (20%) have an online store. In 2010 it was not possible to purchase wine on any of the websites, so there was a significant improvement. Despite this result being rather similar to the DOQ Priorat Route Wineries (30%) (Camprubí & Galí, 2015) compared to wineries in California (83%) and Australia (70%), the results are unsatisfactory.

4.7. Newsletters

The use of electronic newsletters is important in both the pre-visit stage and post-visit (Neilson & Madill, 2014). In 2010 only 2 members gave the user the possibility to sign up for newsletters, while now, 10 members (25%) have this possibility. This evolution is not very significant, which seems to indicate that members do not regard newsletters as an important communication tool.

Californian (62%), Canadian (59%) and Australian (47%) wineries offer this opportunity more frequently than the DWR wineries. However, only 22% of French and Chilean wineries have newsletters. It is interesting to note that one of the DWR wineries has an RSS feed as a means of providing updated information.

4.8. Wine production and Storage Information

Advances were made regarding this group, considering that in 2010 only 50% (10 members) had wine production information and 11 provided information about their wine storage conditions. Currently, 34 members (85%) provide this information, which demonstrates the importance that is given to wine quality.

4.9. Awards Received and Press Releases

Thirty members (75%) recognize the importance of these items and provide mass media news about their wines or events where they are exhibiting and prize certificates they have received. Unfortunately, there are some cases of news that are outdated, which shows that there is a lack of interest in updating the information. There is also a member that despite having a "News" section, does not have any information available. Still, in 2010, only 59% of the members provided this information, so there was some improvement.

4.10. Pictures and Videos

This is perhaps the group of features where progress is more evident. Realizing that photographs can attract tourists and provide information, all webpages wineries provide them on their webpages. In 2010, despite all wineries already having pictures on their websites, most were just of their wines. Now, many of them exhibit beautiful landscapes, showing their wines, wine cellars, vineyards, wine tourism activities, wine producers and enologists. These photographs can make tourists feel more connected to the winery. Some of the members also have photos of wine being enjoyed in "lifestyle" situations that Neilson and Madill (2014) suggest as a strategy to attract visitors.

Sixteen members (40%) have videos on their websites, many with a pro-quality look. These videos are usually promotional, with virtual visits or videos with the activities they perform. In 2010 only one member had a YouTube video on its website.

4.11. Ethical Issues and Environmental Concerns

The results in this group of features did not

change much. In 2010 to enter 2 members' web-sites, the user had to have the minimum legal drinking age. Now, only 4 members display this warning. In one of these webpages, other public service messages "Drink with Responsibility" and "We defend a responsible and moderate alcohol consumption" are shown.

Noticing that DWR wineries have been showing a growing interest in environmental and sustainability issues, they were added to this group of features. For instance, one member shows its concerns about these issues by producing vegan and organic wines. Another member mentions "Natural Vineyards" but without further explana-tions and another one mentions that their wines are organic and certified by Sativa (PT-BIO-03). A member has a "Biodiversity" section with infor-mation about the European Initiative on Business & Biodiversity.

4.12. Social Media

Thirty-five wineries (87.5%) have a Facebook page. However, and surprisingly, 11 of them do not mention their Facebook page on their website. In addition to these 35 wineries, another 2 have a Fa-cebook icon on their website, but they are inactive. It should be noted that 2 of the 6 members that do not have a webpage, have a Facebook page. Be-sides Facebook, wineries are also active on other social media such as Instagram (14), Youtube (7), Twitter (4), Linkedin (3), Pinterest (2) and We-chat (2). Thach et al. (2016) recommend using more than one social media page to increase wine sales, starting with Facebook. Indeed, studies have shown that Facebook is the preferred social media for winery visitors (e.g. Byrd et al., 2017).

Interestingly, 3 members have interesting blogs, with wine and event-related posts. In 2010 only 3 members (18%) had a Facebook page, although only one mentioned it on its webpage. Therefore, the progress registered is remarkable,

which clearly demonstrates the importance of so-cial media nowadays. Moreover, compared to DOQ Priorat Route members, where only 20% of them use social media (Camprubí & Galí, 2015), it is evident the evolution registered regarding social media use.

4.13. Links to other members' websites, other entities and information about the region

Only 4 members include links to other mem-bers of the DWR, but only because they belong to the same corporate group. However, it should be noted that 11 members have links to other bu-sinesses or events, such as accommodation, golf, wine stores, museums, events, and other wine pro-ducers from other regions (when they are from the same corporate group). Unexplainably, only one member has a link to the DWR. It should also be noted that some members mention the name of their partners, such as handicraftsmen or produ-cers of local products, but without providing a link. Finally, 13 members (32.5%) provide information about the Dão Region, such as climate, mountains, culture, festivals and gastronomy. This group re-gistered a noticeable evolution compared to the results in 2010 when none of the members had links to other member's websites or other entities related to wine and only one member had informa-tion about the region. Nevertheless, compared to the percentage of wineries in Neilson and Madill's (2014) study that have website links to external in-formation sources and to the wine industry, there is still room to improve.

5. Conclusions

This study not only presents an analysis of the progress registered over ten years of the Dão Wine Route Member's websites but also provides an up-

dated picture on how they use the websites to promote themselves and the route.

The findings reveal that in 10 years the DWR has undergone several important changes: the number of wineries belonging to the route has grown from 35 to 46, there was also a significant increase in the number of wineries with a webpage (49% to 87%) and the route now has its own webpage. Specifically, regarding the member's websites, there was noticeable progress. Indeed, there was an improvement in the websites regarding information about the business and their wines, information in other languages, the winery's history, having an online store, the use of photos and videos, wine production and storage information and awards received. Moreover, during this period it is interesting to note that some wineries are concerned with environmental and sustainability issues. Wineries' growth on social media was one of the most significant changes.

Despite these developments, some results are disappointing, since members could be performing much better on their webpages. This may be the result of most members being small wineries that cannot afford on marketing and technology. Many do not have human resources to manage websites and social media. For instance, Szolnoki et al. (2014) found that most wine producers (64.4%) that had a Facebook page managed it themselves and that it was very time-consuming.

An unexplainable result, identical to 2010, is that almost all wineries (95%) do not mention that they belong to the DWR. This information is valuable to a tourist to know that the winery belongs to an organized route. Therefore, mentioning that they belong to the DWR should be mandatory, as it would be extremely advantageous to all. This should be mentioned on the winery's homepage, for example with a map of the route and the winery's location. Furthermore, members should also have a link to the DWR website, just as this page should also have links to its members.

One of the limitations of this study is that among the 46 wineries analyzed now, only 15 were part of the route in 2010, so the comparison is not a direct one. Another limitation is that some of the results were compared to the results of studies published in 2014 and 2015. In an online environment, things change rapidly and thus, the results may be outdated. However, this fact suggests the importance of the present study, as it provides updated results.

Despite these limitations, this study provides useful insights to DWR members to develop strategies to take more advantage of the Internet to attract wine tourists. First, they need to provide useful and updated information. Although there are more members providing information in other languages, it is still incomprehensible that 37.5% of the members do not. All members should provide information in other languages, especially in English, but also in German, Spanish and French as these are important markets for the wine tourism industry. Despite the improvement regarding the percentage of wineries with an online store (20%), it is still small, especially considering, for instance, that on 83.3% of California's wineries websites, it is possible to purchase products (Neilson & Madill, 2014). Indeed, most DWR wineries are missing an invaluable opportunity to sell their wines, especially considering that online wine sales are growing steadily across Europe (Hancock, 2019).

Members should also have a "Wine Tourism" or "Experiences" section on their webpage to provide information about all the available activities they offer, such as guided tours, tastings and visits to the vineyards. Since the wineries are set in stunning landscapes, wineries could increase their income by venue offering services for events and promote this online.

Considering the increased worldwide use of social media, wineries should invest in Facebook ads. In fact, they can target tourists in several ways, but in this case specifically it would be worthwhile to select the country they live in and their interests, since Facebook has wine-related categories

such as Enotourism, Food & Wine and Wine tasting. Obviously, that to invest in Facebook ads, it is important to have an updated and informative website.

DWR wineries should perform a benchmarking analysis with the websites of worldwide known wine routes, with thousands of visitors a year, such as the Mendoza Wine Route, in Argentina or the Champagne route, in France. This approach would provide additional insights to improve their websites.

Future work should interview owners of the DWR wineries to understand why not much effort is put into their webpages. It would also be worthwhile to examine wine tourist's perceptions of the DWR websites. Specifically, to see how they rate these websites and which content they find more engaging and relevant. A more technical evaluation of the wineries websites could also be conducted, using an automated tool to rate usability and mobile platform support. Since the winery literature does not provide which evaluation techniques should be used, Canziani and Welsh (2016) recommend the use of a tool such as Website Grader®.

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