

Benchmarking wineries' digital presence and engagement in wine tourism: A cross-Balkan perspective

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Abstract

This study aims to benchmark the websites of wineries in three Balkan regions – Naoussa Imathias (Greece), Struma Valley (Bulgaria), and Povardarie (North Macedonia) – by evaluating their digital engagement strategies in the context of wine tourism. The selected regions represent three distinct types of destinations: a more established, a developing, and an emerging one, offering a robust basis for comparisons. The evaluation framework was developed through a two-stage process: first, we conducted a thematic analysis of winery websites featured in the World's Best Vineyards list, which identified additional indicators for inclusion in existing benchmarking models. Subsequently, a refined set of five key categories was generated, taking into account several communication, quality and performance aspects, namely: informational content; interactivity; transactions; integration; and sustainability. The extended model was applied in comparative content analysis of winery websites across the three regions. Empirical findings reveal not only region-specific strengths, but also common challenges for Balkan wineries, particularly in terms of interactivity, integration, and sustainability communication. The study contributes to the wine tourism literature by incorporating a sustainability perspective into benchmarking approaches and by offering insights into the digital positioning of wine regions at different stages of tourism development, demonstrating that more advanced tourism maturity does not automatically translate into greater digital sophistication across all dimensions.

Keywords: digital communication, wine tourism, Balkans, benchmarking, sustainability

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1. Introduction

Wine tourism is an increasingly significant segment of the global tourism industry, contributing to rural regeneration and the promotion of cultural heritage (UNTWO, n.d.). Since the 1990s, a growing number of wine regions, both in traditional European countries and the New World ones, have entered the global tourism market (Charters & Mitchell, 2014), developing diverse models of wine tourism as expressions of either territorial innovation or historical continuity (Contreras & Thomé-Ortiz, 2021). The Balkan Peninsula with its long-standing winemaking traditions, diverse natural landscapes, and rich cultural heritage possesses considerable potential for developing a competitive wine tourism offer. As Hudelson (2014, p. 34) observes, if considered as a whole, the Balkans, a territory commonly defined in geographical and cultural terms to include much of Southeast Europe, including Greece, Bulgaria, North Macedonia, Serbia, and Romania (Crampton *et al.*, 2025), would represent the fifth-largest wine-producing area in the world. Nevertheless, the region's wine tourism landscape remains uneven and fragmented. While specific destinations in Greece have established a recognizable presence, others, particularly in Bulgaria and North Macedonia, are still in earlier stages of development (Terziyska, 2020).

Within this context, the adoption of new technologies and social media has become a key factor in enhancing winery visibility and visitor engagement (Simeon & Sayeed, 2013). Virtual platforms enable wineries to communicate their identity, tell compelling stories, and offer practical functionalities such as online reservations and direct sales. More broadly, the digital presence of wineries should be understood within wider debates on the digital transformation of tourism SMEs and destination competitiveness (Lu & Shaharudin, 2024; Xia *et al.*, 2024). In emerging tourism contexts, websites and related digital tools are not merely promotional channels, but strategic instruments through which tourism businesses and destinations build visibility, support visitor engagement, facilitate direct transactions, and strengthen their competitive market positioning (Chamboko-Mpotaringa & Tichaawa, 2021). In this sense, winery websites function both as firm-level assets and as elements of the wider digital competitiveness of regional wine tourism systems.

However, the use of such tools in the Balkans remains inconsistent. Studies have reported a lack of coherent digital strategies and limited online visibility among wineries in countries like Serbia (Pivac *et al.*, 2020) and Greece (Alebaki, Psimouli, Kladou, *et al.*, 2022). In addition, systematic comparisons of digital winescapes remain scarce. As Alebaki *et al.* (2020, p. 2) note, “*very few publications have attempted to introduce tools that can be used in improving wine tourism stakeholders' ability to evaluate their performance, given the complex environment in which they operate*”. Although academic interest in Balkan wine tourism has grown in recent years, the majority of research has focused on regional development (Neskovic, 2022; Tănase *et al.*, 2022); visitor profiles (Oltean & Gabor, 2022); and wine route promotion (Karafolas, 2007; Pop *et al.*, 2023), rather than on digital wine communication.

Meanwhile, international studies have underscored the importance of online visibility, interactivity, and narratives in wine tourism marketing (Marzo-Navarro & Pedraja-Iglesias, 2021); nevertheless, such approaches have rarely been applied in the Balkan context. This study addresses this gap by benchmarking the websites of wineries in three Balkan regions – Naoussa Imathias (Northern Greece), Struma Valley (Bulgaria), and Povardarie (North Macedonia)-, which represent different stages of wine tourism development. The evaluation model combines established measurement criteria with new indicators derived from an exploration of global best practices. The research was conducted in two stages: first, a thematic analysis was used to refine the benchmarking framework; second, a content analysis was applied to assess the digital presence of wineries in the selected regions. This study aims to contribute to the understanding of digital engagement in emerging wine tourism regions in the Balkans by pursuing two main objectives:

1. To refine an existing benchmarking model for evaluating winery websites, by integrating indicators derived from global best practices.
2. To apply this model in the Balkan context in order to assess and compare the digital presence of wineries in three distinct destinations, thus identifying region-specific strengths and gaps.

The paper is structured as follows: Section 2 presents an overview of wine tourism research in the Balkan context, along with benchmarking approaches for evaluating wineries and destinations. Section 3 outlines the methodology adopted to address the study's research questions. Empirical findings are presented in Section 4, followed by discussion and conclusions in Section 5, which highlight the study's theoretical and practical implications.

2. Literature review

2.1. Wine tourism in the Balkans

In his Basketball Hall of Fame Enshrinement Speech, Vlade Divac (ESPN.com news services, 2019) stated: *"The people of the Balkans are like a dysfunctional family. We may fight and argue, but in the end, we are family"*. In an equally inclusive manner, Hudelson (2014) distinguishes similarities that render Balkan countries parts of a wider, united wine region. The author distinguishes three types of common characteristics:

- *Geographic*: the Balkans possess an amalgam of coastal and mainland wine regions;
- *Viticultural*: There are multiple common indigenous varieties across borders; and
- *Linguistic/historic*: This category refers to the existence of mutually intelligible languages (Slavic) and the 'political unrest' (Traganou & Yagou, 2015) of the so-called 'crossroad' (Kostova-Panayotova, n.d.), 'restless backyard' (Ihlau & Mayr, 2009) or 'tinderbox' (Mazower, 2002) of Europe.

According to Tomka (2014), it is upon this cultural complexity and diversity that the power of attraction of Balkans as a tourism destination lies. However, as Detrez (2002, p. 4) underlines, *"the Balkans are as often perceived as an -albeit peripheral area- within the European space"*. Subsequently, there is vagueness in their definition, both in geographical and cultural-historical terms (Marinov, 2011). Given the absence of a universal agreement on the components that constitute the territory (Crampton *et al.*, 2025), for the purpose of this paper, we accept Hudelson's (2014) perspective, according to which, the Balkan Peninsula comprises all parts lying south of the northern slope of the Balkan Mountain Range. These include particular parts or the whole of Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Kosovo (disputed status), North Macedonia, Montenegro, Romania, Slovenia, Serbia and the Thracian portion of Turkey.

Gorton & Ivanova-Sullivan (2019, p. 127) explored the linguistic and cultural history of wine in Slavic cultures, confirming *"...a strong presence in the Balkans with continuity in the traditions of cultivating, winemaking, and consumption dating back to the oldest attested inhabitants of this area"*. Despite this long history, specialised literature on Balkan wine tourism is quite recent and mostly dominated by country-specific research. An extensive review indicates that Greece, Bulgaria and Serbia account for the majority of the published work. In addition to the above, an emerging number of wine tourism studies comes from Romania (Pop *et al.*, 2023; Tănase *et al.*, 2022); Bosnia and Herzegovina (Bodiroga *et al.*, 2024; Vukojević *et al.*, 2022); North Macedonia (Filiposki & Metodijeski, 2021; Neskovic, 2022); Croatia (Marković *et al.*, 2018; Peršurić *et al.*, 2019); Slovenia (Gačnik, 2014); Turkey (Güzel *et al.*, 2021; Oncel & Yolal, 2019; Sevil & Yüncü, 2009); Montenegro (Stankovic *et al.*, 2024); and Albania (Haxhialushi, 2023).

The largest part of the aforementioned papers has adopted a supply-side perspective, examining the history, current state and development of particular destinations, with specific cases either being embedded within the sustainability discourse (Oltean & Gabor, 2022; Petrović *et al.*, 2022; Trišić *et al.*, 2020) or evaluating the success of wine routes at a regional (Karafolas, 2007), national (Pop *et al.*, 2023), and transnational level (Maksimović *et al.*, 2019). A less developed strand of literature is the demand-driven one, which deals with the characteristics and segmentation of cellar door visitors or wine festival attendees (Alebaki & Iakovidou, 2011; Marković *et al.*, 2018, 2019). Benchmarking papers are very few and concern only national-wide studies, while research efforts to provide cross-country data for comparisons remain scarce (see Table 1). Apart from Hudelson's (2014) initial study on the future of wine tourism in the Balkans, a few exceptions concern comparative analysis between North Macedonia and Bulgaria (Metodijeski & Micev, 2018), as well as between a Northern Greek and a North Macedonian region – Florina and Demir Kapija (Marinoski *et al.*, 2017). From a consumer angle, Oltean & Gabor (2022) adopted a cross-cultural framework to explore the profile of wine tourists in Romania and Moldova.

Even less evidence exists in terms of online wine tourism in the Balkan context. The only documented information available comes from Bulgaria, Greece and Serbia. In the Bulgarian case, Terziyska (2024) investigated the drivers of customer experience by exploring visitor reviews in Tripadvisor; Alebaki, Psimouli & Kladou (2022) and Alebaki *et al.* (2022) compared the digital winescape of two Greek island wineries; Bonarou, Tsartas & Sarantakou (2019) focused on e-storytelling and wine tourism branding in Northern Greece; and Pivac, Maksimović & Blešić (2020) examined the importance of digital marketing for Serbian wine tourism businesses. Despite their orientation towards distinct aspects of online wine tourism, none of these studies reported on cross-national analyses.

2.2. Benchmarking wine tourism businesses and destinations

Generally, the application of benchmarking in the field of wine tourism is still limited (Gierczak-Korzeniowska, 2020; Kozak & Rimmington, 2014). To date, several studies have focused on various aspects of supply and demand, exploring different destinations. However, the need for an integrated framework for systematic assessment of wine tourism development is still strong (Alebaki *et al.*, 2020), “...if progress is to be made in evaluating wine region competitiveness” (Getz & Brown, 2006a, p. 79). In this respect, the selection of specific indicators that comprise a benchmarking framework is of utmost importance.

Getz & Brown (2006a) were the first to develop a comprehensive model for comparisons between regions, incorporating measures related to the Context, the Supply and the Demand of wine tourism. Subsequent studies attempted to build upon this approach, with most of them being based on the theoretical concept of the Tourism Area Life Cycle. An up-to-date review of the main advances in this field is presented in Table 1.

The overwhelming majority of the articles cited in Table 1 refers to studies carried out in Southeast Europe; however, only Metodijeski & Micev (2018) provide comparative results from two different countries. Moreover, despite the inclusion of both organization and destination benchmarking aspects in the analysis employed by the aforementioned authors, there has been no effort to develop an integrated framework for comparisons between Balkan regions. Even fewer studies have evaluated Balkan wine tourism destinations in terms of their digital marketing strategies. It is from this perspective that the present research has been undertaken. The following paragraphs provide a review of literature in this field.

Table 1. Benchmarking in wine tourism. Research efforts after Getz & Brown (2006a).

Authors	Region of focus	Contribution	Indicators used
Tomljenović & Getz (2009)	Medimurje and Plešivica (Croatia)	Used Okanagan Valley (Canada) as a point of reference	Getz & Brown's (2006a)
Jurinčič & Bojnec (2009)	Goriška Brda (Slovenia)	Comparisons between two regions	Getz & Brown's (2006a)
Škrbić et al. (2015)	Sremski Karlovci (Serbia)	Compared with Ontario (Canada) and Villány (Hungary)	Indicators: bottled wine; events and festivals; art and music; wine routes; education; wine sampling; restaurants; online sales and websites
Terziyska (2017)	Bulgaria	An updated version of Getz & Brown's (2006a) model	Context (<i>managerial and marketing activities of wineries and DMOs</i>); Supply); Demand
Alebaki & Koutsouris (2019)	N. Greece, Peloponnese, Crete (Greece)	Comparative overview of wine tourism development in three regions	Spatial; Life-Cycle stage; and network development characteristics
Metodijeski & Michev (2018)	N. Macedonia and Bulgaria	Cross-country comparative analysis	Context; Government bodies; National Strategies for Tourism Development
Alebaki et al. (2020)	Crete (Greece)	Introduced a system resilience perspective	Context; Supply and demand factors

2.3. Benchmarking wineries' websites

The present study is positioned at the intersection of destination development theory and broader discussions of digital maturity in tourism. Destination development models suggest that wine tourism regions do not evolve in a linear manner through time, but through changing levels of integration, cooperation, promotion, and tourist flows (Butler, 1980; Carmichael & Senese, 2012). In parallel, research on eTourism and digital transformation indicates that websites and related digital tools increasingly shape visibility, engagement, transactions, identity communication, and destination competitiveness (Buhalis & Law, 2008; Law et al., 2014). Building on this premise, digital benchmarking should not be understood merely as a descriptive inventory of website features, but as a lens through which to examine how wine tourism destinations at different stages of development express distinct digital profiles and strategic priorities.

The literature also reveals important structural differences between Old- and New- World wine tourism models, which are closely linked to the interplay of local economic, historical, and cultural conditions. (Contreras & Thomé-Ortiz, 2021; Hall et al., 2009). Differentiating components include, particularly, the level of emphasis on production; appellation frameworks; business attitudes; producer engagement; the pursuit of experiential value; and drivers of wine tourism (Charters, 2009). For instance, while the European model is rooted in heritage and terroir narratives (Riviezzo et al., 2017; Ruiz Pulpón & Cañizares Ruiz, 2025), New World destinations have developed more commercially-oriented models

centred on the cellar door as a part of a wider regional tourism offering (Hill & Fountain, 2021; Mitchell *et al.*, 2012).

Beyond structural factors, effective communication has emerged as a fundamental mechanism through which wine regions attract and engage potential visitors (Getz & Brown, 2006b). In this sense, the asymmetries between Old- and New- World contexts¹ carry significant implications not only for destination choice but also for the ways in which digital engagement strategies are adopted and perceived (Szolnoki *et al.*, 2022), leading to different priorities in research agendas as well (Gómez *et al.*, 2019).

According to Simeon & Sayeed (Simeon & Sayeed, 2013, p. 25), online wine tourism is defined as the activity of searching websites' content for "*wine related products, services, culinary or leisure activities of wine regions or wineries*". This demand-side definition emphasises on the specific elements a consumer/potential visitor is seeking at the pre-visit stage of the wine tourism experience. Thus, the content of the information provided through a website is critical to the ability of a business or destination to attract highly involved wine tourists (Marzo-Navarro & Pedraja Iglesias, 2021). To this end, significant research interest has been directed into the role and impact of internet in promoting wine tourism (Haller *et al.*, 2020).

In an attempt to evaluate the content of wineries' websites, several authors have applied distinct sets of classification criteria. These include, *inter alia*, website design (Camprubi & Goncalves, 2025; Chironi *et al.*, 2020); popularity (Murphy *et al.*, 2005); functionality and interactivity (Čamilović, 2022; Milheiro & Estêvão, 2024); multilingualism (Barroco & Amaro, 2020); presence or absence of online sales (Velikova *et al.*, 2011); use of visual elements (Neilson & Madill, 2014); external ties (Camprubi & Goncalves, 2025); and logo (Martens, 2024) (see Alebaki *et al.*, 2025 for a thorough review of the key aspects used since 2010).

In terms of benchmarking online wine tourism, scientific research has sought to evaluate the content of winery websites through cross-regional analysis, using data from both European and Old-World wine destinations (Camprubi & Goncalves, 2025; Neilson & Madill, 2014; Vasić & Gajic, 2022). Velikova, Wilcox & Dodd (2011) selected online shopping availability; social media; and wine clubs as main criteria to classify 56 wineries in Texas. Their study distinguished between marketing-oriented and wine-oriented websites.

On the basis of distinct sets of the aforementioned criteria, there have been considerable efforts to create typologies of winery websites, following Velikova *et al.*'s (2011) initial work. In a New-World context, Martens (2024) identified tourism and non-tourism focused Canadian wineries. This study analyzed 89 wineries and underlined the relative lack of wine businesses in providing comprehensive tourism experiences and in utilizing interactive features through their websites. A detailed set of indicators assisted in this respect, comprising, beyond basic info, visual elements; internal & external integration; social networks; and browsing design.

In a similar vein, Vlcea, Licurici & Popescu (2024) classified Romanian wineries into four categories (i.e., Basic - 'Newbies'; Intermediate - 'Explorers'; Advanced - 'Integrators'; and Expert websites). General characteristics; involvement in wine tourism; expertise sharing; and marketing constituted the main criteria used for their typology. It is important to stress that the stage of (online) wine tourism development in the specific country along with the small population of this national study (154) render generalizations from its findings problematic.

Using data from 358 wineries in Rioja, (i.e., a leading wine tourism destination), Spain, Marzo-Navarro & Pedraja Iglesias (2021) developed a benchmarking model that comprised four types of website orientation, namely: (1) Informational; (2) Interactive communication; (3) Transactional; and (4) Integration. The utility of this approach has extended beyond the Spanish context, being further established and validated by Alebaki et al. (2022), who evaluated 53 Santorini and Cretan wineries' websites in Greece.

The present paper builds on the initial approach taken by Marzo-Navarro & Pedraja Iglesias (2021) in an attempt to enrich the wine tourism literature with data from the Balkan context. The rationale behind the selection of the specific approach lies in its potential to provide a consolidated benchmarking tool for comparisons in future analyses. However, as the authors also underline, "*this framework may have left out elements of interest to wine consumers and potential tourists*" (p. 539). To address this limitation, the existing model was enriched by identifying up-to-date indicators through thematic analysis of leading wineries' websites. This process led to the inclusion of a new dimension, namely, sustainability, which is increasingly acknowledged as an essential aspect of contemporary wine tourism marketing (Dinya, 2023; Martínez-Falcó et al., 2024), as well as a diversification strategy for businesses and destinations (Almeida et al., 2023). The next section describes the steps taken in this respect.

3. Research design

3.1 Research objectives and regions of focus

For the purpose of this study, a census approach has been employed; The research population includes all wineries of three selected Balkan regions, i.e., Naoussa Imathias (Northern Greece), Struma River Valley (Bulgaria), and Povardarie (North Macedonia) which are involved in wine tourism activities. In particular, this paper seeks to address the following questions:

RQ1. Which specific indicators and metrics should be included to update and enhance existing models for benchmarking winery websites?

RQ2. How do the selected wine regions differentiate in terms of their digital strategies? What are the common strengths and weaknesses in the website content across the three border regions?

The three regions were selected to represent different stages of wine tourism development within Southeast Europe, supporting a meaningful comparative analysis across varied geographical and institutional contexts. In particular, the terms "*more mature*", "*developing*", and "*emerging*" are treated as relative analytical categories rather than as absolute indicators of global destination status. Their use is informed by Carmichael and Senese's (2012) stage model of wine tourism destination development, which conceptualises destination progression in terms of increasing business integration, networking, marketing and promotion, and tourist flows, rather than of longevity per se. Accordingly, the classification adopted in this study reflects a combination of factors, including, *inter alia*, the maturity of the wine tourism offer; the degree of organisational and territorial integration; the visibility of supporting tourism infrastructure; and the broader market and digital positioning of each region. The selected cases thus represent distinct yet complementary trajectories within the broader Balkan wine tourism landscape, and each contributes specific characteristics that enrich the comparative analysis, supporting simultaneously a more comprehensive understanding of how digital presence is expressed across wine tourism destinations. Specifically, Greece is an example of a more mature wine tourism destination compared to Bulgaria and North Macedonia, considering the stage model of Carmichael & Senese (2012). The country (and the region of Naoussa Imathias in particular) possesses remarkable indigenous grape varieties (Puckette, n.d.); a critical mass of wine tourism enterprises; high levels of integration; and established regional branding (Alebaki & Koutsouris, 2019). Approximately 13% of the

country's wineries (115 out of 888) are open to the public (Greek Ministry of Agricultural Development and Food, 2025; Greek Ministry of Tourism, 2025). Moreover, Greece boasts a well-developed tourism infrastructure and constitutes one of the most popular tourism destinations worldwide. Analysing Greek websites provides insights into the digital strategies of wineries located in regions with an established presence.

Bulgaria represents an emerging wine tourism destination with a specific wine production history (Terziyska, 2020). With its growing number of boutique wineries (Asenova, 2019), the country is increasingly gaining recognition on the global wine stage (Decanter, n.d.). By 2025, there are 358 officially registered wine producers in the country (EAWV, 2025), with more than 100 of them being open to the public (at the time of this research, there was no official data in this respect). Bulgaria's efforts to modernise its wine tourism offerings and promote its wine heritage make it a critical case study. Examining Bulgarian winery websites showcases the strategies employed by a wine tourism region in its transitional stage of development to establish itself and compete with more mature destinations.

North Macedonia, and in particular the Povardarie wine region, is often described as a promising yet underexplored wine tourism destination in the Balkans (Filiposki & Metodijeski, 2021). The area is recognised for its quality wines, especially those made from the indigenous Vranec grape (Koteski & Mojsov, 2019). However, wine tourism remains at an early developmental stage, being characterized by a small number of wineries open to the public; limited horizontal and vertical integration among stakeholders (Kwietniewska & Charzyński, 2020); and low overall tourist awareness (Filiposki & Metodijeski, 2021). In compliance with the TALC model, Povardarie can be placed in the initial phase of "winery independence," where individual wineries operate largely in isolation without coordinated marketing efforts or broader destination-level collaboration (Carmichael & Senese, 2012). According to the Register of Wineries published by the State Inspectorate for Agriculture (2021), a total of 74 wineries are officially registered nationwide, 43 of which are located in the Povardarie region. Only the 13 wineries included in this study demonstrated some form of involvement in wine tourism on their official websites. Thus, the examination of North Macedonian wineries allows for a better understanding of how emerging wine destinations begin to use digital tools to increase visibility and attract visitors. It also sheds light into the ways in which online communication strategies of less developed regions differ from the ones of more established ones.

In conjunction, the three wine regions offer a balanced and comprehensive view of the Balkan wine tourism industry. Greece's established reputation, Bulgaria's dynamic growth, and North Macedonia's emerging presence offer varied contexts for examining digital strategies. This diversity enables a richer analysis of how wineries across various stages of tourism development use their websites to engage with potential visitors.

3.2 Research design

This study followed a two-stage research design. Initially, a thematic analysis of global best practices in digital winery communication was conducted to identify new and contextually relevant indicators for benchmarking. These indicators were then used to refine the existing evaluation frameworks. Secondly, quantitative content analysis was employed to evaluate winery websites, based on frequency coding of website features. This systematic and versatile method enables exploring and interpreting data; It also provides a structured approach to analysing large volumes of textual, visual, or audio material, by identifying patterns and trends across diverse content types (Krippendorff, 2019; Neuendorf, 2016). On the basis of standardised coding schemes, content analysis ensures objectivity and reliability, reducing researcher bias and enhancing replicability (Berelson, 1952), and allowing the quantification of

qualitative data (Weber, 1990). The method is particularly valuable for comparative studies, enabling researchers to examine differences across contexts, groups, or time periods effectively (Holsti, 1969).

In order to explore website features and assess their functionality across the three wine regions, the following four key stages were undertaken:

A. Defining benchmarks

The study utilized a combination of predefined elements and In-Vivo coding during the review of winery websites, with the aim to establish a system of indicators. Thus, the benchmarking framework used in this paper builds on Marzo-Navarro & Pedraja-Iglesias' (2021) model, as adapted by Alebaki *et al.* (2022). This approach was selected for its specific focus on winery websites, its alignment with core wine tourism marketing dimensions, and its proven applicability in previous research. Its adaptable structure allowed the integration of additional indicators, ensuring both comparability with existing studies and contextual relevance. The benchmarking framework was further expanded by incorporating indicators identified on websites listed in the World's Best Vineyards Awards (*World's Best Vineyards | The List and Awards, n.d.*). The particular choice reflects the understanding that effective benchmarking models should be informed by leading examples that exemplify current best practices in the field. In the broader management literature, benchmarking is defined as both a comparative (measuring performance against competitors) and a learning process that involves identifying top-performing standards and adapting them to one's own context (Brandmeier & Rupp, 2024; Stevenson, 1999; Wöber, 2003). Considering this aspect, the inclusion of indicators derived from globally recognised winery websites strengthens the model's capacity to serve as a relevant reference for evaluating digital communication strategies. As a result of the thematic analysis, a new dimension (sustainability) emerged, along with several additional features enriching the original structure of the model. Thus, the updated framework includes the following five categories:

1. **Informational:** This type includes the existence of basic details, such as contact information; history of winery; product descriptions; awards; maps; opening hours; and downloadable content (i.e., brochures). In its revised version, several new codes were added (i.e., videos, 3D/virtual tours; events; themed/complementary tourism offer; description of local/indigenous varieties; description of the production process; frequently asked questions; and blogs/news). In order to better organise the data and manage the large number of indicators, the informational category was further divided into the following seven subcategories: contact information; about the winery; location and accessibility; visual and scenic elements; tourism and visitor experience; awards and distinctions; and educational; and marketing content.
2. **Interactive communication:** It comprises features fostering customer engagement, including social media links; blogs; contact forms; and wine club memberships. This category was expanded with the inclusion of two new codes: visitor feedback; and chatbot.
3. **Transactional:** It refers to the provision of e-commerce capabilities through the winery website (i.e., shopping carts; secure payment options; and online booking for activities such as tastings or tours). Gift vouchers were introduced as a new code.
4. **Integration:** This dimension captures the extent to which a website positions the winery within a broader destination ecosystem rather than presenting it as a stand-alone attraction. It includes destination information; links to other tourism points of interest and external information sources; the offering of peripheral products beyond digital wine sales; participation in local/regional networks; and links with other companies. The indicator "participation in local/regional networks" was introduced as an extension to the original model in order to capture the winery's embeddedness in wider destination

and tourism structures, particularly through its involvement in collaborative place-based networks, regional partnerships, and other forms of territorial coordination that situate the winery within a broader tourism offer. This dimension should be interpreted in light of contextual differences across regions, since some integrative functions may be fulfilled by destination- or route-level platforms rather than by individual winery websites.

5. **Sustainability** was added as a fifth dimension in the benchmarking framework in order to capture how wineries communicate environmental and socio-economic responsibility online. Based on the first-stage thematic analysis of international best practices, this dimension was operationalised through six indicators reflecting: (1) the communication of organic, biodynamic, regenerative, or other environmentally oriented farming practices; (2) references to biodiversity preservation, particularly the protection of local grape varieties and ecosystems; (3) sustainability-oriented visitor engagement through educational or participatory activities; (4) social responsibility toward local communities and employees; (5) climate-related action, including adaptation and mitigation measures; and (6) transparency regarding sustainability goals, practices, or certifications. Together, these indicators were intended to capture the extent to which sustainability forms part of the winery's digital positioning and broader tourism appeal.

The final structure of the benchmarking model used in the next stage of the study is presented in Figure 1. The present approach consolidates the original dimensions from existing frameworks with the additional features and sustainability indicators identified from thematic analysis.

B. Sampling

A comprehensive list of all wineries open to the public in three regions was compiled. The study includes all wineries that maintain publicly accessible websites with relevant tourism and communication content (16 wineries in Naoussa, 14 in Struma Valley, and 13 in Povardarie, for the full list, see Appendix 1). While the total number of cases is modest, it reflects the actual scope of digital presence in the selected regions and allows for a structured comparative analysis. In line with the exploratory dimension of the study, this approach enables the identification of patterns in digital engagement that can inform future research and broader benchmarking efforts.

C. Content analysis

All indicators were coded dichotomously (presence/absence) and treated with equal weight. This approach was adopted to ensure coding consistency and comparability across websites with heterogeneous structures and content formats, and to avoid introducing additional subjectivity through more finely graded scoring or ex ante weighting assumptions. The coding was based on a predefined framework of indicators (e.g., contact information; e-commerce features; or social media links). Findings were then summarized using descriptive statistics (frequency counts), showing the proportion of websites that include each feature. This enables both comparisons across cases (i.e., the presence of indicators can be compared across different websites, regions, or categories) and identification of trends (i.e., the results highlight common strengths and weaknesses in website content). The content analysis was conducted by three coders: two of the authors and one master's student with prior training in tourism research and digital communication. Each researcher was responsible for independently coding one of the three regions, using a shared coding framework developed during the first stage of the study. To ensure consistency and reliability, 20% of the websites (selected across all regions) were double-coded by a second coder. Discrepancies were discussed and resolved by consensus, and minor adjustments were made to the coding guide based on this calibration. Data was collected between May 2024 and January 2025.

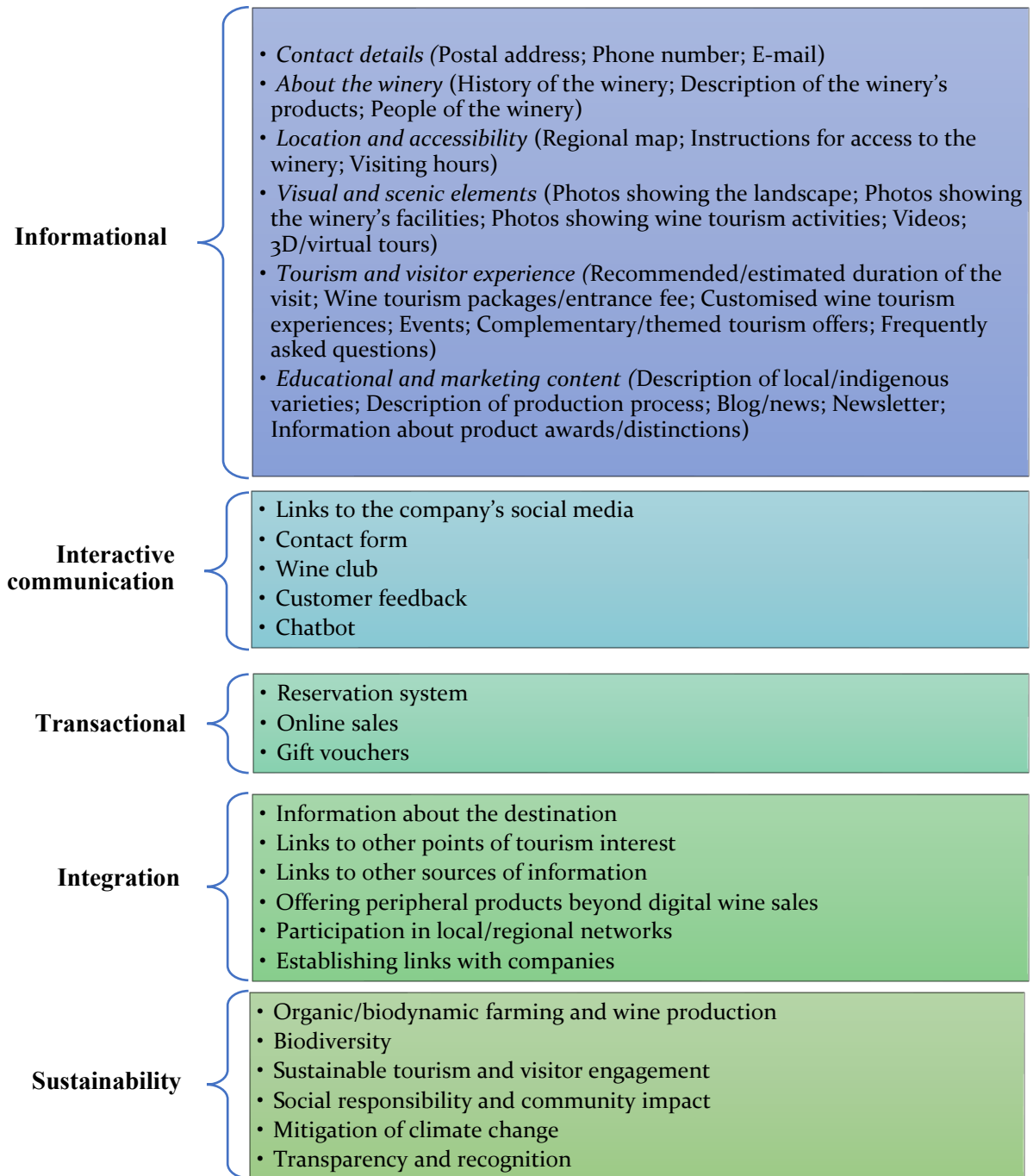


Figure 1. *Benchmarking dimensions and features for assessing wineries' digital presence.*

D. Comparative analysis

Using the values from the content analysis, a quantitative comparative analysis was carried out to identify and compare the digital strategies employed by wineries in all three regions.

4. Results

This section presents the findings of the website analysis, structured according to the five dimensions of the benchmarking model, i.e., informational content, interactive communication, transactional functionality, integration, and sustainability. For each dimension, the performance of wineries in the three selected regions – Naoussa Imathias (Greece), Struma Valley (Bulgaria), and Povardarie (North Macedonia) – is examined, allowing for a comparative understanding of regional strengths, weaknesses, and emerging patterns in digital communication strategies.

The second stage of research included the compilation of a comprehensive list of all wineries open to the public in the three selected regions. Each website was analysed according to the aforementioned criteria, allowing for a structured assessment of the information. The frequency of coded elements served as a basis for a subsequent comparative analysis which identified key trends and regional differences. Empirical findings offer an overview of each region's strengths and weaknesses, which are further examined in the following sections through a comparative lens (Appendices 2 and 3).

4.1. Informational Features

The availability of contact details is a strong point across all regions, with Naoussa and Povardarie providing complete coverage (100%). Struma Valley slightly lags behind at 92.86%. This finding indicates that most wineries recognise the importance of the inclusion of essential contact information in their websites, ensuring accessibility for visitors.

The *About the Winery* section shows significant variation (Povardarie 100%, Naoussa 93.33%, Struma Valley 71.43%), revealing an inconsistency in how wineries present their background and history. This section is crucial for storytelling and brand differentiation, and the lower score in Struma Valley suggests that some wineries may need to enhance their online presence by sharing more comprehensive information about their heritage and production methods.

The *Location and accessibility* section highlights certain disparities in how wineries offer details about reaching their establishments. While some aspects are relatively well covered, others show significant gaps that could impact visitor convenience. The presence of a regional map is moderately covered across all regions, with Struma Valley leading at 79%, followed by Povardarie at 69% and Naoussa at 53%.

Instructions on how to access the winery is a major weakness in Naoussa (7%) and Struma Valley (14%), while Povardarie performs significantly better at 62%. Information on visiting hours is not widely available, with all regions scoring below 40% (Povardarie 38.46%, Struma Valley 36%, Naoussa 27%). The small differences indicate a general neglect in communicating this essential information.

The visual and scenic elements of winery websites in the three regions exhibit both common strengths and distinct differences. All three regions place significant emphasis on showcasing the landscape, with Naoussa (93%) and Povardarie (92%) having a slight edge over Struma Valley (79%). Similarly, photos of winery facilities are widely present in all cases, though Struma Valley (79%) lags slightly behind Naoussa (87%) and Povardarie (85%). A significant differentiation arises in the depiction of wine tourism activities, where Povardarie (85%) excels compared to Struma Valley (50%) and Naoussa (33%). Video content remains relatively underutilised, ranging from 29% to 36%.

A key weakness in digital content of Balkan wineries lies in the lack of 3D or virtual tours, with Naoussa failing to offer any such option (0%), while Struma Valley (14%) and Povardarie (27%) provide some degree of interactive visualization. Overall, while there is a strong visual representation of landscapes and facilities, the limited use of advanced digital tools reduces the immersive potential of websites to engage remote visitors.

The *Tourism and Visitor Experience* section reveals significant discrepancies in how wineries present their offerings, with some regions excelling in certain aspects while others lag behind. The indication of recommended/estimated duration of the visit is relatively weak across all regions (Naoussa 13.33%, Struma Valley 7.14%, Povardarie 30.77%).

There is a significant variation in the availability of information on wine tourism packages and entrance fees. Struma Valley stands out with 57%, while Naoussa (7%) and Povardarie underperform (7% and 31%, respectively). This suggests that Bulgarian wineries are more proactive in advertising their packages, while other regions might be missing opportunities to attract visitors through clear pricing and structured offers. Struma Valley (50%) again performs better than Naoussa (7%) and Povardarie (30%) in terms of offering customised wine tourism experiences.

Information on events is another indicator where some variations are observed, with Naoussa providing the least coverage (20%), compared to Struma Valley (42%) and Povardarie (36%). Although there is no extreme disparity, this finding indicates room for improvement in promoting winery-hosted events. Offering themed/complementary wine tourism products also reveals significant discrepancy, with Struma Valley at 43%, Naoussa at 14%, and Povardarie at only 9%.

The *Educational and Marketing content* of winery websites shows clear differences in emphasis, with each region excelling in specific aspects. Naoussa stands out for its strong focus on educational content, particularly in describing local and indigenous grape varieties (93%) and the production process (86%), whereas Struma Valley (21%, 36%, respectively) and Povardarie (18%, 27%) provide considerably less information in these areas. Struma Valley, however, performs better in marketing efforts, as reflected in the higher presence of blogs or news sections (79%) and newsletters (43%), compared to Naoussa (36%, 20%) and Povardarie (45%, 23%).

Information about product awards and distinctions is fairly consistent across all three regions, hovering around 50%, indicating that, while this content is available, it is not a defining strength. A common weakness for Naoussa and Povardarie concerns the underutilization of newsletters and blog sections as dynamic engagement tools, with none of them fully capitalizing on their potential for audience interaction.

4.2. *Interactive communication*

In terms of interaction features, there are both common strengths and significant gaps in user engagement. A key strength across all regions lies in the inclusion of social media links, with Struma Valley and Povardarie achieving full coverage (100%), while Naoussa lags behind (47%). Contact forms constitute another widely adopted feature, with Struma Valley (100%) leading, followed by Povardarie (77%) and Naoussa (67%). However, more interactive engagement tools, such as wine clubs and chatbots, remain underutilized. Wine clubs are nearly absent, with only Povardarie (27%) and Struma Valley (7%) providing them, and Naoussa offering none. Similarly, chatbots, which could enhance real-time communication, are available only by Povardarie wineries (18%) and are entirely absent in Naoussa and Struma Valley. Customer feedback integration is also weak, with Naoussa (21%) and Struma Valley (14%) offering minimal options, while Povardarie does not include this option at all.

4.3. *Transactional orientation*

Winery websites in the three regions vary significantly in terms of their approach to transactional features, with some regions demonstrating stronger e-commerce capabilities than others. Struma Valley stands out for its relatively advanced online sales (71%) and reservation system (64%), making it the most commercially developed among the three. In contrast, Povardarie offers these features at lower rates (46% for online sales, 23% for reservations), while Naoussa falls behind with minimal adoption

(13%, 0%, respectively). Gift vouchers are another underutilised tool, present in only a small percentage of websites in Struma Valley (7%) and Povardarie (18%), but are entirely absent in Naoussa. These findings indicate that, while Struma Valley has made progress in digital transactions, there is still untapped potential across all regions.

4.4. Integration

The level of integration with broader tourism and business networks differs considerably across winery websites. Povardarie leads in linking wineries to broader wine destinations (46%) and in offering peripheral products beyond wine sales (46%), while Struma Valley (29% and 43%, respectively) and Naoussa (13%, 0%) show more limited engagement in these areas. Establishing connections with other companies is stronger in Struma Valley (50%) compared to Povardarie (31%) and Naoussa (7%), though Povardarie still demonstrates a more balanced integration overall.

Yet, links to other points of tourism interest remain weak across all regions, with Naoussa (7%), Struma Valley (14%), and Povardarie (15%) providing minimal information. Similarly, participation in local and regional networks is inconsistent, with both Naoussa and Struma Valley at 29%, while Povardarie does not feature this information at all.

4.5. Sustainability

Significant disparities exist in both focus and coverage of the sustainability dimension. Naoussa demonstrates the strongest commitment to biodiversity (100%) and social responsibility (71%), while Struma Valley (50%, 0%) and Povardarie (100%, 18%) show mixed levels of engagement in these areas. Organic and biodynamic farming practices are more frequently highlighted in Naoussa (43%) compared to Struma Valley (14%) and Povardarie (0%), suggesting a stronger emphasis on sustainable viticulture in Greek wineries.

Yet, sustainable tourism and visitor engagement remain underdeveloped, with Naoussa (14%) and Struma Valley (21%) offering limited content, and Povardarie lacking any mention (0%). Similarly, information on climate change mitigation is sparse, ranging from 9% (Povardarie) to 14% (Naoussa and Struma Valley), indicating a general weakness in addressing broader environmental concerns. Transparency and recognition efforts are also minimal, with only Naoussa (21%) and Povardarie (18%) providing some content, while Struma Valley omits it entirely.

5. Discussion

The comparative analysis of wineries websites in Naoussa (Imathias (Greece), Struma Valley (Bulgaria), and Povardarie (North Macedonia) reveals significant regional differences in the use of online tools for visitor engagement, wine tourism promotion, and business performance improvement. While all three Balkan regions make efforts to provide online information, their strategies differ in terms of comprehensiveness, interactivity, and commercial integration. Empirical findings indicate interesting correlations between the type of region and the digital communication strategies used by wineries.

One of the most interesting observations is related to Naoussa: Despite of being a more mature wine region compared to Struma Valley and Povardarie, the Greek region is the least oriented towards providing tourism-related information (i.e., descriptions and pricing of packages; visiting hours; themed and personalised experiences; and events). Naoussa's digital engagement strategies remain underdeveloped, as evidenced by the low integration of social media, blogs, and newsletters which plays a pivotal role in increasing the visibility and competitiveness of the wineries (Vilcea, Licurici & Popescu (2024). Furthermore, the region lags behind in transactional capabilities, with minimal online sales and reservation systems; This limits the region's ability to facilitate direct bookings and purchases, despite the rising trend in wine products' online transactions worldwide in the last decades (Velikova *et al.*,

2011). The transactional capabilities are also restricted compared to other Greek regions in (i.e., Crete and Santorini, Alebaki *et al.*, 2022). At the same time, Naooussa places great emphasis on educational content and regional storytelling, offering detailed descriptions of local wine varieties, production processes, and the history of the winery.

Struma Valley, on the other hand, has a more robust digital presence. Wineries in this destination actively use blogs, newsletters, and social media to maintain an online presence and ensure a higher level of customer interaction. Moreover, they emphasise tourism experiences, offering well-structured wine tourism packages and promoting various events, which have been addressed as the most important wine tourism motivations in Bulgaria and North Macedonia (Metodijeski & Michev, 2008). The Bulgarian region also stands out in digital transactions, with a higher prevalence of online reservations and sales. There is a well pronounced difference in this aspect when comparing it with both Naooussa and other more developed destinations (i.e., Rioja, Marzo-Navarro & Pedraja-Iglesias, 2021), suggesting that newer players may outperform established ones in adopting visitor-oriented, transactional, and marketing-focused digital strategies.

Moreover, Struma Valley leads in interactive communication, and the transactional aspect of regional websites is significantly stronger compared to the other two destinations. In particular, Bulgarian wineries appear to be more engaged in partnerships that support tourism-related services, such as accommodation providers, restaurants, and travel agencies, further indicating a moderate level of integration. At the same time, cross-regional differences in the *Integration* dimension should be interpreted in light of the uneven development of destination-level digital infrastructures. In Greece, the existence of a wine route with a dedicated website may externalise part of the integrative function from the winery website to the route level. By contrast, in Bulgaria the relevant route lacks a dedicated website, while in North Macedonia no equivalent route structure was identified. This suggests that variation in integration scores may reflect not only differences in winery-level communication practices, but also broader differences in how destination connectivity is digitally organised and represented. By comparison, Struma Valley lags behind Naooussa in educational content, particularly in presenting winery history and production processes, suggesting a more marketing-driven approach at the expense of knowledge sharing. A similar pattern was identified in a recent study of Romanian wineries – a destination with a profile comparable to Bulgaria as a post-socialist country in a transitional stage of wine tourism development – where the educational dimension was among the weakest-performing features (Vilcea, Licurici, & Popescu, 2024).

Povardarie, an emerging wine destination, demonstrates a balanced approach, incorporating elements of education, visitor experience, and sustainability, though without excelling in any particular category. The North Macedonian region performs well in interactive communication, providing logistical details, including accessibility and visitor information, and excelling in visually showcased wine tourism activities. Compared to more developed wine regions (e.g. Niagara, or Crete and Santorini) it can be argued that Povardarie has almost the same level of contact and accessibility information, but performs better in visual and scenic elements (photos, videos, virtual tours) (Alebaki *et al.*, 2022; Martens, 2024). However, while Povardarie indicates a moderate engagement in digital marketing, its transactional capabilities remain lower than those of Struma Valley, and in contrast to Struma Valley region, this destination possesses more wine-oriented websites. Similar results have been observed by Velikova, Wilcox & Dodd (2011); in Texas, in an emerging wine region, the authors distinguish between marketing and wine-oriented wineries' websites. Moreover, participation in local and regional networks is completely absent in the North Macedonian case, suggesting that local wineries are not actively engaging in industry collaborations that could strengthen their position in the market.

An important conceptual implication of the findings is that destination maturity does not appear to correspond in a simple linear way to digital sophistication. Although Naoussa represents the more mature wine tourism destination, its relative strengths are concentrated in interpretive and symbolic dimensions such as storytelling, educational content, and the communication of sustainability-related themes. By contrast, Struma Valley, despite its less mature tourism profile, performs more strongly in transactional and interactive features. This suggests that digital competitiveness in emerging wine destinations may develop unevenly across different functional domains rather than following a single, cumulative pathway. In other words, destinations may advance more rapidly in market-oriented and conversion-related digital functions, while more mature destinations may invest more strongly in narrative depth, heritage interpretation, and identity-based positioning. Rather than indicating a straightforward inverse relationship, the results point to a differentiated pattern in which destination maturity shapes the profile – not simply the level – of digital development.

This differentiated pattern is also visible in the sustainability dimension. Naoussa communicates sustainability more explicitly, particularly through references to biodiversity and social responsibility, although this discourse is framed mainly through the preservation and valorisation of the indigenous Xinomavro variety rather than through a broader articulation of ecosystem stewardship. Povardarie likewise links biodiversity to the preservation of the local Vranec variety, but sustainability communication appears less comprehensive and more fragmented. Struma Valley, in turn, shows weaker sustainability-related messaging overall, especially in environmental and community-oriented terms. Importantly, these findings concern the communication of sustainability on winery websites rather than verified sustainability practices. Even so, they suggest that sustainability has not yet become an equally embedded dimension of digital competitiveness across the three destinations. In emerging contexts, therefore, digital competitiveness may depend not only on transactional efficiency and visibility, but also on the ability to translate environmental and social commitments into credible and coherent online narratives.

6. Conclusion

6.1. Theoretical contributions

The study offers several theoretical contributions to wine tourism and digital marketing literature: First, by developing and applying a benchmarking model that integrates both established evaluation criteria and additional indicators derived from global best practices, it refines existing tools for assessing digital communication in tourism. While dimensions such as storytelling, interactivity, and integration with broader tourism services have been addressed in earlier studies, the model employed in the present paper enhances these aspects through more detailed and context-sensitive features. In addition, the study introduces the dimension of sustainability in exploring wineries' websites, reflecting growing expectations for transparency and responsible tourism practices. At the same time, the findings show that sustainability remains an unevenly developed component of wineries' digital competitiveness, as it follows a different pattern from transactional dimensions. This suggests that responsible positioning is present in the region but not yet systematically integrated into online communication.

Although the benchmarking model developed in this study is operationalised through binary (yes/no) coding, it captures qualitative aspects of digital communication. Many of the indicators integrated in the analysis reflect content-rich and narrative-driven features, such as the presence of winery's stories, visual representations of the landscape and experience, and community impact. These indicators are qualitative in nature, even if they were recorded quantitatively. Moreover, the model was informed by thematic analysis in the first stage of the study, which identified content areas based on emerging global best practices. This approach allows the model to reflect not only what features are present but also the types of values and experiences wineries choose to communicate digitally.

Second, the study responds to the need for more robust frameworks that allow comparative evaluation of wineries' digital presence, as addressed in previous literature (e.g., Alebaki *et al.*, 2020; Marzo-Navarro & Pedraja-Iglesias, 2021). By focusing on three regions at different stages of wine tourism development, it demonstrates how digital strategies vary not only in intensity but also in orientation, depending on the maturity of the destination and its institutional context.

An important theoretical insight from the study is the inverse relationship observed between tourism maturity and digital performance. Contrary to expectations, the less mature destinations in terms of wine tourism development -such as the Struma Valley in Bulgaria and Povardarie in North Macedonia- showed more advanced or comprehensive digital features compared to the more established region of Naoussa in Greece. This challenges assumptions that digital sophistication is necessarily tied to destination maturity and suggests that digitally proactive behaviour can emerge independently of traditional development trajectories. This finding opens space for rethinking how innovation and competitiveness can be conceptualised in the case of emerging tourism regions.

Finally, the study enriches the literature on tourism benchmarking by illustrating how a multidimensional evaluation tool can capture both quantitative and qualitative aspects of online communication, providing a more holistic view of wineries' digital capabilities.

6.2. Managerial implications

From a managerial perspective, the study addresses the importance of integrating digital strategies across multiple dimensions, including, content richness, interactivity, transactional efficiency, and sustainability. Concurrently, the findings suggest that these priorities should be calibrated to each destination's specific digital profile rather than assumed to follow destination maturity in a linear way: while the more mature Naoussa performs more strongly in educational storytelling, the less mature Struma Valley shows greater development in transactional and interactive features. A more comprehensive approach tailored to each region's particularities could significantly raise the competitiveness of wineries in all three regions. For instance, for Naoussa, the priority should be strengthening interactivity and transactional capabilities; for Struma Valley, deepening storytelling and educational content; and for Povardarie, improving reservation systems and network integration.

Moreover, the addition of GPS coordinates, written directions and transport options could also improve accessibility. In terms of transactional orientation, expanding reservation systems, boosting online sales interfaces and incorporating promotional tools such as gift vouchers could increase customer convenience and drive greater engagement with winery websites. Finally, all three regions could benefit from stronger collaborations among wineries and associated businesses, enriching their visitor experience and add to their overall appeal. Communication of sustainability efforts could also be further developed.

6.3. Limitations and Future Research Directions

While this study comprises all wineries with publicly accessible websites in the selected regions, the relatively small number of such cases reflects the early stage of wine tourism development in these areas. As such, the study should be viewed as exploratory in nature, offering an initial framework for further investigation involving broader samples across additional regions and wine destinations. This also implies certain methodological limits, as the use of dichotomous coding and equally weighted indicators captures the presence of website features, but not their intensity, quality, or relative importance. Future studies using larger samples and visitor-level datasets could extend this work through more differentiated coding and weighting approaches, as well as multivariate techniques such as PCA, factor analysis, or clustering.

A key limitation, as far as digital marketing strategies are concerned, lies in the exclusive focus on winery websites; thus, future studies could incorporate other digital communication channels, such as social media platforms or third-party tourism portals. These may play an increasingly significant role in influencing tourist perceptions and engagement, especially in less digitally mature contexts. Moreover, while the benchmarking model assesses the presence of specific website features, it does not capture their quality, narrative appeal, or user-friendliness, i.e., equally important aspects with respect to effective digital communication. In addition, although the selected regions represent different stages of wine tourism development, the findings may not be fully generalizable to all Southeastern European destinations due to variations in institutional, market, and policy environments.

A further limitation concerns the use of the *World's Best Vineyards Awards* as a source for identifying examples in the first stage of the study. As inclusion in such rankings may depend on partially subjective or non-transparent criteria defined by the organisers, this source may introduce selection bias and favour wineries that are already more visible or better resourced internationally. It was therefore used as a pragmatic and exploratory reference point rather than as an objective indicator of excellence.

The study is also limited by its cross-sectional design, with data reflecting a single time point. Given the dynamic nature of digital engagement, further research should adopt longitudinal designs to track changes in digital strategies over time and to identify emerging trends or shifting best practices.

Building on the current benchmarking framework, additional research could enhance the practical value of the present study by incorporating insights from consumer behaviour, by examining how tourists interact with winery websites and by identifying the digital features that influence decision-making, brand perception, and overall satisfaction. Such user-focused analysis would deepen an understanding of digital effectiveness and provide actionable guidance for wineries seeking to improve their online presence. Despite these limitations, this paper offers a valuable empirical baseline and introduces a replicable benchmarking model that can support future comparative and evaluative research on digital communication in wine tourism, highlighting that digital competitiveness in emerging destinations is not linear, but differentiated across transactional, interactive, interpretive, integrative, and sustainability-related dimensions.

Endnotes:

¹ Such asymmetries also include wine tourists' profile and preferences. Latest data (Szolnoki, 2025) suggest that European visitors tend to be older, despite the fact that the interest of younger generations in the Old-World has grown significant more. Cellar tours are more popular in Europe, while, restaurant/bar visits tend to be more attractive in the case of overseas wineries. However, digital aspects of the experience, i.e., virtual wine tours or online tastings, remain undeveloped in both Europe and the New World (Szolnoki, 2025).

AI Use Disclosure

The authors acknowledge the use of ChatGPT-4o for English language editing and style refinement. This AI-assisted process was employed to enhance the clarity and readability of the manuscript while preserving the originality of the content. We have carefully reviewed and verified the edited text to ensure accuracy, coherence, and alignment with the intended meaning. All substantive revisions, interpretations, and conclusions remain our own.

APPENDICES

Appendix 1. List of wineries, included in the study

Wine region	Winery	Website
Naousa	Ktima Diamantakos	https://diamantakos.gr/
	Domain Dalamara	http://www.dalamara.gr/
	Domain Karydas	https://www.domainekarydas.com/
	Estate Founti	https://www.ktimafoundi.gr/
	Boutari Wineries S.A.	https://www.boutari.gr/
	Ktima Kir-Yianni	https://kiryianni.gr/
	Ktima Kelesidi	http://www.ktimakelesidi.gr
	Estate Chrisohoou	https://www.chrisohoou.com/
	Kokkinos Winery	https://www.kokkinoswinery.gr/
	Argatia Winery	https://www.argatia.gr/
	AAOS Vaeni Naoussa	https://www.vaeni-naoussa.com/
	Thymiopoulos Vineyards	https://www.thymiopoulosvineyards.gr/
	Marantidis Winery	https://marantidiwinery.gr
	Tsantalis Wines*	https://tsantali.com/
Struma Valley	Kappa Winery	https://ktimakappa.gr/
	Klonas Boutique Winery	https://klonaswinery.gr/
	Villa Melnik Winery	https://villamelnik.com/
	Zlaten Rozhen Wine Cellar	https://www.zlatenrozhen.bg/
	Rupel Winery	https://rupel-wine.com/homepage/
	Orbelus Winery	https://www.orbelus.bg/en/
	Orbelia Winery	https://www.orbeliawinery.bg/en/
	Kapatovo Family Estate	https://www.kapatovo.bg/
	Medi Valley Winery	https://www.medivalleywinery.com/
	Mihovi Estate	https://mihoviestate.com/
	Kiossev Winery	https://www.kiossev-wine.eu/
	Lozenitsa Estate	https://lozenitsaestate.com/
	Sintica Winery	https://sinticawinery.com/
	Zornitsa Family Estate	https://www.zornitzaestate.com/bg/vinarna/lozya/
Povardarie	Uva Nestum Winery	https://uvanestum.com/winery
	Logodaj Wnery	https://logodajwinery.com/
	Tikves Winery	https://tikves.com.mk/en/home/
	Popova Kula	https://popovakula.com.mk/
	Queen Maria	https://wineryqueenmaria.com/mk/
	Zaharchev Winery and Destilery	https://www.zaharchev.mk/
	Popov Winery	http://www.popovwinery.com.mk/mk
	Milev Winery	https://www.milevwinery.com/?lang=mk
	Lazar Winery	https://lazarwinery.mk/
	Bovin Winery	https://bovin.mk/

Wine region	Winery	Website
	Venec Winery	https://venec.mk/
	Valandovo Vizba	https://vizbavalandovo.com.mk/
	Stobi Winery	https://stobiwinery.mk/
	Jostela Winery	https://www.jostela.com/
	Tristo Winery	https://www.tristo.com.mk/

*Note: * The website was active during the research period*

Appendix 2: Winery website features in the regions of Naoussa, Struma Valley and Povardarie

Region Country	Naoussa Greece	Struma Valley Bulgaria	Povardarie N. Macedonia
Informational			
Contact details			
Postal address	100%	93%	100%
Phone number	93%	100%	100%
E-mail	93%	93%	100%
About the winery			
History of the winery	93%	71%	100%
Description of the winery's products	87%	100%	100%
People of the winery	80%	64%	46%
Location and accessibility			
Regional map	53%	79%	69%
Instructions for access to the winery	7%	14%	62%
Visiting hours	27%	36%	38%
Visual and scenic elements			
Photos showing the landscape	93%	79%	92%
Photos showing the winery's facilities	87%	79%	85%
Photos showing wine tourism activities	33%	50%	85%
Videos	36%	29%	36%
3D/virtual tours	0%	14%	27%
Tourism and visitor experience			
Recommended/estimated duration of the visit	13%	7%	31%
Wine tourism packages/entrance fee	7%	57%	31%
Customized wine tourism experiences	7%	50%	31%
Events	20%	43%	36%
Complementary/themed tourism offers	14%	43%	9%
Frequently asked questions	0%	7%	9%
Educational and marketing content			
Description of local/indigenous varieties	93%	21%	18%
Description of production process	86%	36%	27%
Blog/news	36%	79%	45%
Newsletter	20%	43%	23%
Information about product awards / distinctions	47%	50%	46%
Interactive communication			
Links to the company's social media	47%	100%	100%
Contact form	67%	100%	77%
Wine club	0%	7%	27%
Customer feedback	21%	14%	0%
Chatbot	0%	0%	18%
Transactional			
Reservation system	0%	64%	23%
Online sales	13%	71%	46%
Gift vouchers	0%	7%	18%

Region Country	Naoussa Greece	Struma Valley Bulgaria	Povardarie N. Macedonia
Integration			
Information about the wine destination	13%	29%	46%
Links to other points of tourism interest	7%	14%	15%
Links to other sources of information	40%	14%	23%
Offering peripheral products beyond digital wine sales	0%	43%	46%
Participation in local/regional networks	29%	29%	0%
Establishing links with companies	7%	50%	31%
Sustainability			
Organic/biodynamic farming and wine production	43%	14%	0%
Biodiversity	100%	50%	100%
Sustainable tourism and visitor engagement	14%	21%	0%
Social responsibility and community impact	71%	0%	18%
Mitigation of climate change	14%	14%	9%
Transparency and recognition	21%	0%	18%

Appendix 3

Figure I. Strengths of winery websites in Naoussa, Struma Valley, and Povardarie

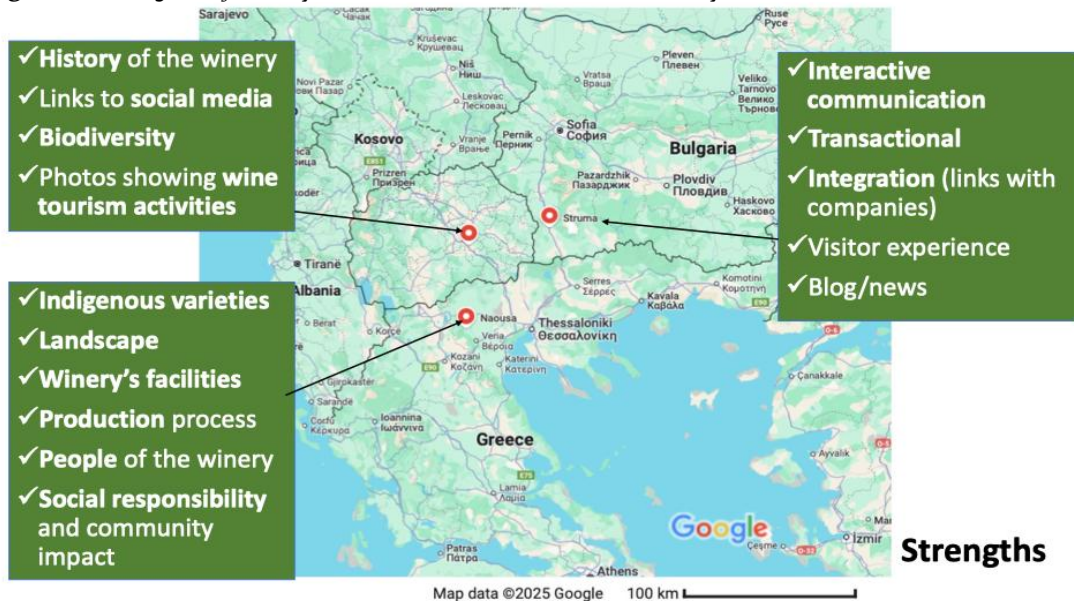
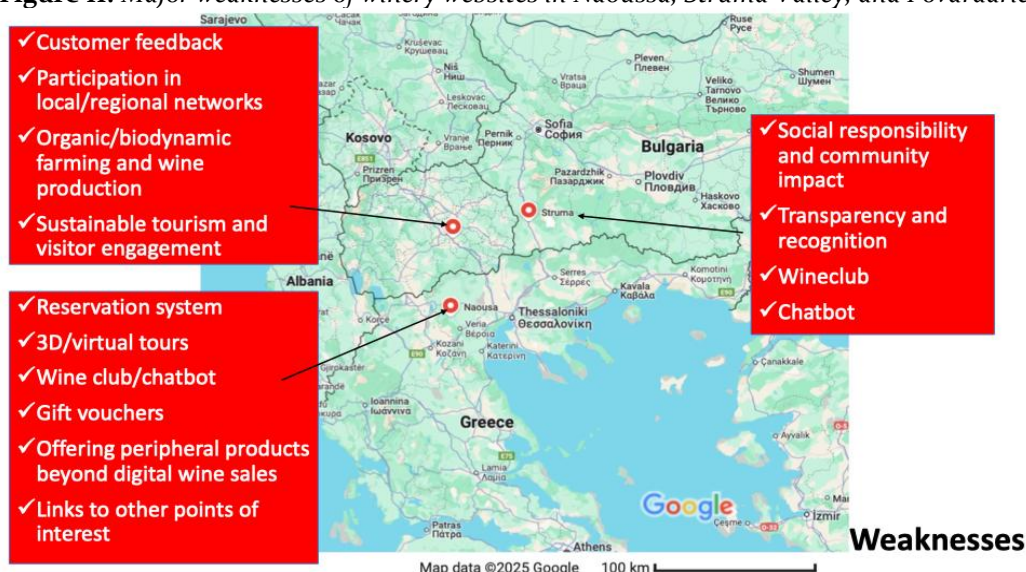


Figure II. Major weaknesses of winery websites in Naoussa, Struma Valley, and Povardarie



References

- Alebaki, M., & Iakovidou, O. (2011). Market segmentation in wine tourism: A comparison of approaches. *Tourismos*, 6(1), 123–140. <https://doi.org/10.26215/tourismos.v6i1.199>
- Alebaki, M., & Koutsouris, A. (2019). Wine Tourism Destinations Across the Life-Cycle: A Comparison of Northern Greece, Peloponnese and Crete. In M. Sigala & R. N. S. Robinson (Eds), *Wine Tourism Destination Management and Marketing: Theory and Cases* (pp. 463–482). Springer International Publishing. https://doi.org/10.1007/978-3-030-00437-8_29
- Alebaki, M., Lontakis, A., & Koutsouris, A. (2020). Benchmark Analysis of Wine Tourism Destinations: Integrating a Resilience System Perspective into the Comparative Framework. *Wine Tourism: Challenges, Innovation and Futures*. 2nd International Research Workshop in Wine Tourism 'Wine Tourism: Challenges, Innovation and Futures', 17–18 September, 2020.
- Alebaki, M., Psimouli, M., & Kladou, S. (2022). Social Media for Wine Tourism: The Digital Winescape of Cretan Wineries in the Era of COVID-19. In S. Tabari & W. Chen (Eds), *Global Strategic Management in the Service Industry: A Perspective of the New Era* (pp. 81–98). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-80117-081-920221006>
- Alebaki, M., Psimouli, M., Kladou, S., & Anastasiadis, F. (2022). Digital Winescape and Online Wine Tourism: Comparative Insights from Crete and Santorini. *Sustainability*, 14(14), 8396. <https://doi.org/10.3390/sui14148396>
- Almeida, D., Massuça, J., Fialho, A., & Dionisio, A. (2023). Sustainable wine tourism as a diversification strategy: A different approach in a rural cooperative. *The CASE Journal*, 19(2), 204–231. <https://doi.org/10.1108/TCJ-02-2022-0039>
- Asenova, M. (2019). Developing a GIS database for wine tourism in Bulgaria. *Surveying Geology and Mining Ecology Management*, 19(2.2), 799–806. <https://doi.org/10.5593/sgem2019/2.2/S11.098>
- Barroco, C., & Amaro, S. (2020). Examining the progress of the Dão wine route wineries' websites. *Revista Turismo & Desenvolvimento*, (33), 29–40. <https://doi.org/10.34624/rtd.voi33.20396>
- Berelson, B. (1952). *Content analysis in communication research* (p. 220). Free Press.
- Bodiroga, R., Banjanin, T., Ateljević, D. V., & Kerma, S. (2024). The trends in viticulture and winemaking in the context of wine tourism development in Bosnia and Herzegovina. *Acta Geographica Slovenica*, 64(3), 33–48. <https://doi.org/10.3986/AGS.13545>

- Bonarou, C., Tsartas, P., & Sarantakou, E. (2019). E-Storytelling and Wine Tourism Branding: Insights from the “Wine Roads of Northern Greece”. In M. Sigala & R. N. S. Robinson (Eds), *Wine Tourism Destination Management and Marketing: Theory and Cases* (pp. 77–98). Springer International Publishing. https://doi.org/10.1007/978-3-030-00437-8_7
- Brandmeier, R. A., & Rupp, F. (2024). Benchmarking: Measuring Against the Best. In R. A. Brandmeier & F. Rupp (Eds), *Structured Innovation: Levers to Successful Innovation Beyond Benchmarking* (pp. 129–156). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-76105-8_6
- Ćamilović, D. (2022). Winery website analysis framework: The case study of Srem wineries. *Turisticko Poslovanje*, 2022, 15–25. <https://doi.org/10.5937/turposo-36998>
- Camprubi, R., & Goncalves, O. (2025). Exploring marketing strategies in wine tourism: A comparative study of Roussillon and Empordà wine regions. *International Journal of Wine Business Research*, 37(1), 1–26. <https://doi.org/10.1108/IJWBR-11-2023-0071>
- Carmichael, B. A., & Senese, D. M. (2012). Competitiveness and Sustainability in Wine Tourism Regions: The Application of a Stage Model of Destination Development to Two Canadian Wine Regions. In P. H. Dougherty (Ed.), *The Geography of Wine: Regions, Terroir and Techniques* (pp. 159–178). Springer Netherlands. https://doi.org/10.1007/978-94-007-0464-0_9
- Chamboko-Mpotaringa, M., & Tichaawa, T. (2021). Tourism Digital Marketing Tools and Views on Future Trends: A Systematic Review of Literature. *African Journal of Hospitality, Tourism and Leisure*, 10(2), 712–726. <https://doi.org/10.46222/ajhtl.19770720-128>
- Charters, S. (2009). New World and Mediterranean wine tourism: A comparative analysis. *Tourism: An International Interdisciplinary Journal*, 57(4), 369–379. <https://hrcak.srce.hr/52992>
- Charters, S., & Mitchell, R. (2014). Food and wine events in Europe and the New World: A comparison. In *Food and Wine Events in Europe*. Routledge.
- Chironi, S., Altamore, L., Columba, P., Bacarella, S., & Ingrassia, M. (2020). Study of Wine Producers’ Marketing Communication in Extreme Territories–Application of the AGIL Scheme to Wineries’ Website Features. *Agronomy*, 10(5), 721. <https://doi.org/10.3390/agronomy10050721>
- Contreras, D. D. J., & Thomé-Ortiz, H. (2021). The Old and the New World of Wine: Rethinking Enogastronomic Tourism from Contextual Factors. *Journal of Gastronomy and Tourism*, 5(4), 177–193. <https://doi.org/10.3727/216929721X16105303036544>
- Crampton, Ri. J., Danforth, L., & Allcock, J. B. (2025). *Balkans | Definition, Map, Countries, & Facts | Britannica*. <https://www.britannica.com/place/Balkans>
- Decanter. (n.d.). *Search Decanter World Wide Awards winners*. Decanter. Retrieved 28 June 2024, from <https://awards.decanter.com/DWWA/2024/search/wines?competitionType=DWWA&country=Bulgaria>
- Detrez, R. (2002). Colonialism in the Balkans. *Historic Realities and Contemporary Perceptions*. <https://www.kakanien-revisited.at/beitr/theorie/RDetrez1.pdf>
- Dinya, L. (2023). Sustainable wine tourism in a non-sustainable world. *Ecocycles*, 9(2), 78–87. <https://doi.org/10.19040/ecocycles.v9i2.299>
- EAWV. (2025). *Viticultural Register*. <https://vineregister.eavw.com/manufacturers>
- ESPN.com news services. (2019, September 7). ‘Always about love’: Divac leads Hall inductees. ESPN.Com. https://www.espn.com/nba/story/_/id/27554912/always-love-divac-leads-hall-inductees
- Filiposki, O., & Metodijeski, D. (2021). Analysis of wine tourism offer in North Macedonia. *International Journal of Economics, Management and Tourism*, 1(1). <https://doi.org/10.46763/IJEMT210008m>
- Gačnik, A. (2014). Slovenian wine stories and wine identities: From the heritage and culture of wine to wine tourism. In *Wine and Identity*. Routledge.
- Getz, D., & Brown, G. (2006a). Benchmarking wine tourism development. *International Journal of Wine Marketing*, 18(2), 78–97. <https://doi.org/10.1108/09547540610681077>
- Getz, D., & Brown, G. (2006b). Critical success factors for wine tourism regions: A demand analysis. *Tourism Management*, 27(1), 146–158. <https://doi.org/10.1016/j.tourman.2004.08.002>

- Gierczak-Korzeniowska, B. (2020). Cultural conditions in the benchmarking process of tourism enterprises. *Folia Turistica*, 55, 25–44. <https://doi.org/10.5604/01.3001.0014.2417>
- Gómez, M., Pratt, M. A., & Molina, A. (2019). Wine tourism research: A systematic review of 20 vintages from 1995 to 2014. *Current Issues in Tourism*, 22(18), 2211–2249. <https://doi.org/10.1080/13683500.2018.1441267>
- Gorton, L., & Ivanova-Sullivan, T. (2019). The Linguistic and Cultural History of Wine in Slavic. In J.J. Pennington, D.E. Collins, V.A. Friedman & L. A. Grenoble, *And Thus You Are Everywhere Honored: Studies Dedicated to Brian D. Joseph* (pp. 125–137). Bloomington: Slavica Publishers. <https://muse.jhu.edu/book/66693>.
- Greek Ministry of Agricultural Development and Food. (2025). *Personal communication*.
- Greek Ministry of Tourism. (2025). <https://winesofgreece.org/wp-content/uploads/2025/03/SIMA-1.pdf>
- Güzel, Ö., Ehtiyar, R., & Ryan, C. (2021). The Success Factors of wine tourism entrepreneurship for rural area: A thematic biographical narrative analysis in Turkey. *Journal of Rural Studies*, 84, 230–239. <https://doi.org/10.1016/j.jrurstud.2021.04.021>
- Hall, C. M., Sharples, L., Cambourne, B., & Macionis, N. (2009). *Wine Tourism Around the World*. <https://doi.org/10.4324/9780080521145>
- Haller, C., Thach, L., & Olsen, J. (2020). Understanding eWinetourism Practices of European and North America Wineries. *Journal of Gastronomy and Tourism*, 4(3), 141–156. <https://doi.org/10.3727/216929720X15846938923987>
- Haxhialushi, R. (2023). Wine Tourism: A New Emerging Segment in Albania. *ITEMA 2023 / 7 – Recent Advances in Information Technology, Tourism, Economics, Management and Agriculture*, 123–132. <https://doi.org/https://doi.org/10.31410/ITEMA.S.P.2023.123>
- Hill, R., & Fountain, J. (2021). Expressing sense of place and terroir through wine tourism encounters: Antipodal reflections from France and New Zealand. In *The Routledge Handbook of Wine and Culture*. Routledge. <https://doi.org/https://dx.doi.org/10.4324/9781003034711-14>
- Holsti, O. R. (1969). *Content Analysis for the Social Sciences and Humanities*. Longman Higher Education.
- Hudelson, J. E. (2014). Eastern Promises: The Potential Future for Wine Tourism in the Balkans. *American Journal of Tourism Management*, 3(1B), 34–50. doi:10.5923/s.tourism.201402.05
- Ihlau, O., & Mayr, W. (2009). *Minenfeld Balkan: Der unruhige Hinterhof Europas*. Bundeszentrale für politische Bildung.
- Jurinčić, I., & Bojnec, Š. (2009). Wine tourism development: The case of the wine district in Slovenia. *Tourism: An International Interdisciplinary Journal*, 57(4), 435–448. <https://hrcak.srce.hr/52996>
- Karafolas, S. (2007). Wine Roads in Greece: A Cooperation for the Development of Local Tourism in Rural Areas. *Journal of Rural Cooperation*, 35(01), 1–20. <https://ideas.repec.org/a/ags/jlorco/58678.html>
- Kostova-Панайотова-на-йотова, М. (n.d.). *The Balkans: Undressing the metaphors [Балканите: Разсъбличането от метафорите]*. Retrieved 24 February 2025, from https://litenet.bg/publish5/m_kostova/balkanite2.htm
- Koteski, C., & Mojsov, K. (2019). Polyphenolic Characterization of Vranec, Merlot and Cabernet Sauvignon Grapes and Wines from the Black River Basin in R. Macedonia. *International Journal of Innovative Research in Science & Engineering (IJIRSE)*, 7(1), 8–16. <https://ijirse.in/feb19.html>
- Kozak, M., & Rimmington, M. (2014). Developing a Benchmarking Model for Tourist Destinations. In *The Practice of Graduate Research in Hospitality and Tourism*. Routledge. <https://www.routledge.com/The-Practice-of-Graduate-Research-in-Hospitality-and-Tourism/Sparks/p/book/9781138989702?srsId=AfmBOopIFyzvIaRTQ9ZhaQo7ECBxH18rJ5Vo4llElkzshJvwzmcmXY>
- Krippendorff, K. (2019). *Content Analysis: An Introduction to Its Methodology*. SAGE Publications, Inc. <https://doi.org/10.4135/9781071878781>

- Kwietniewska, S., & Charzyński, P. (2020). Enotourism in North Macedonia – current state and future prospects. *Geography and Tourism*, 1(8), 65–80. <https://czasopisma.ukw.edu.pl/index.php/gat/article/view/134>
- Lu, H., & Shaharudin, M. S. (2024). Role of digital transformation for sustainable competitive advantage of SMEs: A systematic literature review. *Cogent Business & Management*, 11(1), 2419489. <https://doi.org/10.1080/23311975.2024.2419489>
- Maksimović, M., Pivac, T., & Alkier, R. (2019). Constantinople wine route – a new wine tourism project in the Balkans. *5th International Scientific Conference ToSEE - Tourism in Southern and Eastern Europe 2019 Creating Innovative Tourism Experiences: The Way to Extend the Tourist Season*, 419–430. <https://doi.org/10.20867/tosee.05.43>
- Marinoski, N., Korunovski, S., & Risteski, M. (2017). Possibilities for sustainable development of wine tourism in Demir Kapija and Florina. *1st International Scientific Conference “Challenges of Tourism and Business Logistics” ISCTBL 2017*, 58–67. <https://js.ugd.edu.mk/index.php/YFNTS/article/view/2185>
- Marinov, S. (2011). Marketing of the Balkans as a Tourist Destination for Cultural Tourism. *Cultural Corridor Sofia-Ohrid – Cultural Tourism without Boundaries*. International Scientific Conference ‘Cultural Corridor Sofia-Ohrid – Cultural Tourism without Boundaries’, June 7 - October 7, 2011. <https://papers.ssrn.com/abstract=1966509>
- Marković, S., Mitrović, S., & Miftarević, S. B. (2018). Who are the wine and food festival visitors? Case study of Croatia. *Horizons. Series A. Social Sciences and Humanities*, 23, 399–408. <https://doi.org/10.20544/HORIZONS.A.23.2.18.P28>
- Marković, S., Mitrović, S., & Racz, A. (2019). Who Are The Wine And Food Festival Visitors? An Exploratory Study. *Ekonomski Pregled*, 70(2), 209–235.
- Martens, W. (2024). *Use of a Winery’s website for wine tourism development: Niagara region*. <https://doi.org/10.32388/Z8J4PJ.2>
- Martínez-Falcó, J., Sánchez-García, E., Marco-Lajara, B., & Millán-Tudela, L. A. (2024). Wine Tourism as a Catalyst for Sustainable Performance: The Mediating Role of Corporate Legitimacy and Green Innovation. *Agribusiness*, n/a(n/a). <https://doi.org/10.1002/agr.21982>
- Marzo-Navarro, M., & Pedraja-Iglesias, M. (2021). Use of a winery’s website for wine tourism development: Rioja region. *International Journal of Wine Business Research*, 33(4), 523–544. <https://doi.org/10.1108/IJWBR-03-2020-0008>
- Mazower, M. (2002). *The Balkans: From the end of Byzantium to the present day*. Weidenfeld & Nicolson.
- Metodijeski, D., & Micev, G. (2018). Comparative analysis of wine tourism in Macedonia and Bulgaria. *International Journal Knowledge*, 27, 189–195. <https://eprints.ugd.edu.mk/21204/1/Comparative%20analysis-min.pdf>
- Milheiro, E. M., & Estêvão, J. (2024). Alentejo’s E-Wine Tourism: The Dimensions of the Travel Planning Functionalities Conveyed by its Wineries’ Websites. *Journal of Tourism and Development*, 47, 442–468. <https://doi.org/10.34624/rtd.v47i0.38784>
- Mitchell, R., Charters, S., & Albrecht, J. N. (2012). Cultural systems and the wine tourism product. *Annals of Tourism Research*, 39(1), 311–335. <https://doi.org/10.1016/j.annals.2011.05.002>
- Murphy, J., Ho, P., & Chan, C. (2005). Competitive Analyses for Marketing Electronic Wine Tourism. *International Journal of Wine Marketing*, 17, 39–54. <https://doi.org/10.1108/eb008794>
- Neilson, L., & Madill, J. (2014). Using winery web sites to attract wine tourists: An international comparison. *International Journal of Wine Business Research*, 26(1), 2–26. <https://doi.org/10.1108/IJWBR-07-2012-0022>
- Neskovic, M. (2022). Wine tourism as a factor for the development of rural tourism. *International Journal of Economics, Management and Tourism*, 2(2), 54–59. <https://doi.org/10.46763/IJEMT2222054n>
- Neuendorf, K. A. (2016). *The Content Analysis Guidebook* (2nd edn). SAGE Publications, Inc.

- Oltean, F. D., & Gabor, M. R. (2022). Wine Tourism—A Sustainable Management Tool for Rural Development and Vineyards: Cross-Cultural Analysis of the Consumer Profile from Romania and Moldova. *Agriculture (Switzerland)*, 12(10). <https://doi.org/10.3390/agriculture12101614>
- Oncel, S., & Yolal, M. (2019). Wine Routes and Tourism Potential in Turkey. In M. Sigala & R. N. S. Robinson (Eds), *Wine Tourism Destination Management and Marketing: Theory and Cases* (pp. 327–340). Springer International Publishing. https://doi.org/10.1007/978-3-030-00437-8_21
- Peršurić, A., Damijanić, A., & Šergo, Z. (2019). The wine tourism terroir: Experiences from Istria. *ToSEE - Tourism in Southern and Eastern Europe: Creating Innovative Tourism Experiences: The Way to Extend the Tourist Season*, 5, 319–333. <https://doi.org/10.20867/tosee.05.27>
- Petrović, D., Vukoičić, D., Milinčić, U., & Milinčić, M. (2022). Potentials for the wine tourism expansion in the municipality of Aleksandrovac in the function of sustainable development [Потенцијали за развој винског туризма на простору општине Александровац у функцији одрживог развоја]. *Ekonomski Pogledi*, 24(1), 15–57. <https://doi.org/10.5937/ep24-38913>
- Pivac, T., Maksimović, M., & Blešić, I. (2020). The Importance of Digital Marketing for Wineries and Development of Wine Tourism: Case Study of Serbia. In V. Bevanda (Ed.), *Modern Management Tools and Economy of Tourism Sector in Present Era: 5th international thematic monograph* (pp. 241–251). Association of Economists and Managers of the Balkans; Faculty of Tourism and Hospitality. <https://doi.org/10.31410/tmt.2020.241>
- Pop, C., Coros, M. M., & Georgescu, M. A. (2023). Wine Routes in Rural Romania. In *Handbook of Research on Sustainability Challenges in the Wine Industry* (pp. 283–338). IGI Global Scientific Publishing. <https://doi.org/10.4018/978-1-6684-6942-2.ch014>
- Puckette, M. (n.d.). *The Beginner's Guide To Greek Wines*. Wine Folly. Retrieved 3 August 2025, from <https://winefolly.com/deep-dive/the-beginners-guide-to-greek-wines/>
- Riviezzo, A., Garofano, A., Granata, J., & Kakavand, S. (2017). Using terroir to exploit local identity and cultural heritage in marketing strategies: An exploratory study among Italian and French wine producers. *Place Branding and Public Diplomacy*, 13(2), 136–149. <https://doi.org/10.1057/s41254-016-0036-4>
- Ruiz Pulpón, Á. R., & Cañizares Ruiz, M. del C. (2025). The European Wine Tourism Charter and Its Link with Wine Museums in Spain. *Tourism and Hospitality*, 6(3), 128. <https://doi.org/10.3390/tourhosp6030128>
- Sevil, G., & Yüncü, H. R. (2009). Wine producers' perceptions of wine tourism. *Tourism: An International Interdisciplinary Journal*, 57(4), 477–487. <https://hrcak.srce.hr/52999>
- Simeon, R., & Sayeed, L. (2013). Examining the Online Wine Tourism Experience of California Wineries. In *Transdisciplinary Marketing Concepts and Emergent Methods for Virtual Environments* (pp. 25–40). IGI Global. <https://doi.org/10.4018/978-1-4666-1861-9.ch003>
- Skrbic, I., Jegdic, V., Milosevic, S., & Tomka, D. (2015). Development of Sremski Karlovci wine tourism and integration in the regional tourism offer. *Ekonomika Poljoprivrede*, 62, 229–244. <https://doi.org/10.5937/ekoPolj1501229S>
- Stankovic, V., Trihas, N., & Dimou, I. (2024). Wine Tourism in Montenegro in the Post-COVID-19 Era. In A. Kavoura, T. Borges-Tiago, & F. Tiago (Eds), *Strategic Innovative Marketing and Tourism* (pp. 807–815). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-51038-0_87
- State Inspectorate for Agriculture. (2021). *Register of wineries in R. Macedonia*. https://diz.gov.mk/wp-content/uploads/2021/01/%D0%9F%D1%80%D0%BE%D0%B8%D0%B7%D0%B2%D0%BE%D0%B4%D0%B8%D1%82%D0%B5%D0%BB%D0%B8-%D0%BD%D0%B0-%D0%B2%D0%B8%D0%BD%D0%BE-PR_231117.pdf
- Stevenson, W. J. (1999). *Production/operations Management*. Irwin/McGraw-Hill.
- Szolnoki, G. (2025). *Global Wine Tourism Report 2025*. Hochschule Geisenheim University in collaboration with UN Tourism, the International Organisation of Vine and Wine (OIV), the Great Wine Capitals Global Network (GWC) and WineTourism.com. <https://doi.org/10.13140/RG.2.2.23740.50564>

- Szolnoki, G., Bail, S., Tafel, M., Feher, A., & Veith, C. (2022). A Cross-Cultural Comparison of New Implemented Sustainable Wine Tourism Strategies during the COVID-19 Crisis. *Sustainability*, 14(8), 4688. <https://doi.org/10.3390/sui4084688>
- Tănase, M. O., Dina, R., Isac, F.-L., Rusu, S., Nistoreanu, P., & Mirea, C. N. (2022). Romanian Wine Tourism—A Paved Road or a Footpath in Rural Tourism? *Sustainability*, 14(7), 4026. <https://doi.org/10.3390/sui4074026>
- Terziyska, I. (2017). Benchmarking wine tourism destinations – the case of Bulgaria. *International Journal of Wine Business Research*, 29(4), 384–400. <https://doi.org/10.1108/IJWBR-01-2017-0004>
- Terziyska, I. (2020). *Wine Tourism: Critical Success Factors for an Emerging Destination*. GeaLibris.
- Terziyska, I. (2024). Drivers of memorable wine tourism experiences – a netnography study. *Wine Economics and Policy*, 13(1), Article 1. <https://doi.org/10.36253/wep-14433>
- Tomka, D. (2014). On the Balkans – History, Nature, Tourism and Dilemmas Faced by Researchers. *American Journal of Tourism Management*, 3(1B), 0–0. <https://doi.org/doi:10.5923/s.tourism.201402>
- Tomljenović, R., & Getz, D. (2009). Life-Cycle Stages in Wine Tourism Development: A Comparison of Wine Regions in Croatia. *Tourism Review International*, 13(1), 31–49. <https://doi.org/10.3727/154427209789130666>
- Traganou, J., & Yagou, A. (2015). Introduction to Visual Communication in the Balkans: A Socio-political Perspective. *The Design Journal*, 18(4), 467–487. <https://doi.org/10.1080/14606925.2015.1072323>
- Trišić, I., Štetić, S., Privitera, D., & Nedelcu, A. (2020). Wine Routes in Vojvodina Province, Northern Serbia: A Tool for Sustainable Tourism Development. *Sustainability*, 12(1), 82. <https://doi.org/10.3390/sui2010082>
- UNWTO. (n.d.). *UNWTO Wine Tourism Product Development Project: The Joyful Journey | UN Tourism*. Retrieved 27 June 2024, from <https://www.unwto.org/unwto-wine-tourism-product-development-project-joyful-journey>
- Vasić, I., & Gajic, J. (2022). The importance of digital marketing for the development of wine tourism—Case studies of Fruška gora and the Veneto region. *Contemporary Trends in Tourism and Hospitality – CTTH Conference 2022 “Creative Culture Capitals”*.
- Velikova, N., Wilcox, J., & Dodd, T. (2011). Designing Effective Winery Websites: Marketing-Oriented versus Wine- Oriented Websites. *6th AWBR International Conference*, 9 – 10 June 2011. http://academyofwinebusiness.com/wp-content/uploads/2011/09/72-AWBR2011_Velikova_Wilcox_Dodd.pdf
- Vılcea, C., Licurici, M., & Popescu, L. (2024). The Role of Websites in Promoting Wine Tourism: An Evaluation of Romanian Wineries. *Sustainability*, 16(15), 6336. <https://doi.org/10.3390/sui16156336>
- Vukojević, D., Tomić, N., Marković, N., Mašić, B., Banjanin, T., Bodiřoga, R., Đorđević, T., & Marjanović, M. (2022). Exploring Wineries and Wine Tourism Potential in the Republic of Srpska, an Emerging Wine Region of Bosnia and Herzegovina. *Sustainability*, 14(5), 2485. <https://doi.org/10.3390/sui14052485>
- Weber, R. (1990). *Basic Content Analysis*. SAGE Publications, Inc. <https://doi.org/10.4135/9781412983488>
- Wöber, K. W. (2003). Information supply in tourism management by marketing decision support systems. *Tourism Management*, 24(3), 241–255. [https://doi.org/10.1016/S0261-5177\(02\)00071-7](https://doi.org/10.1016/S0261-5177(02)00071-7)
- World's Best Vineyards | *The List and Awards*. (n.d.). IWC - The World's Best Vineyards. Retrieved 14 January 2025, from <https://www.worldsbestvineyards.com/list/1-50>
- Xia, H., Muskat, B., Karl, M., Li, G., & Law, R. (2024). Destination competitiveness research over the past three decades: A computational literature review using topic modelling. *Journal of Travel & Tourism Marketing*, 41(5), 726–742. <https://doi.org/10.1080/10548408.2024.2332278>