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TOURISM WEBSITE ANALYSIS
A QUANTITATIVE APPROACH



UNIVERSITY OF ALGARVE
FACULTY OF ECONOMICS

2024

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Master in Tourism Organization Management

Dissertation
made under the supervision of:
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UNIVERSITY OF ALGARVE
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2024

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Work Authorship Declaration

I declare to be the author of this work, which is unique and unprecedented. Authors and works consulted are properly cited in the text and are included in the listing of references.

Zohreh Asadi

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To my Family

For their support and encouragement

Summary

This thesis delves into the complexities of evaluating tourism websites, focusing on those managed by Destination Management Organizations (DMOs). Recognizing the rapid expansion of the tourism industry, the research underscores the critical role of the Internet and digital platforms in shaping tourism marketing and management practices. The primary objectives are to identify key components of effective tourism websites, establish a comprehensive framework for future research, and develop a robust model for website performance analysis. These aims bridge the gap between theoretical knowledge and practical application, offering valuable insights for enhancing the digital presence of tourism entities. The literature review highlights the importance of website design, usability, and content quality in attracting and retaining visitors, emphasizing websites' strategic role in generating revenue and fostering customer relationships. Various methodologies for evaluating websites are examined, stressing the need for continuous adaptation to the evolving digital landscape and consumer behaviors. The research methodology includes settings, website instruments, data collection, and data analysis, providing a systematic approach to assessing tourism websites. The results section explores organic traffic analysis, search engine optimization (SEO), user interface (UI), and user experience (UX), offering empirical data to support theoretical foundations. The discussion integrates theoretical and practical implications, emphasizing the necessity for DMOs to maintain a competitive edge through ongoing website evaluation and adaptation. The conclusions reaffirm the essential role of digital platforms in the tourism industry, advocating for strategic foresight and innovation in website management. In summary, this thesis offers a comprehensive analysis of tourism websites, emphasizing effective digital strategies for DMOs. The insights from the literature review, empirical analysis, and practical case studies enhance understanding of the digital tourism landscape, setting the stage for further research and strategic development.

Keywords: Tourism Websites, Digital Marketing, Website Evaluation, Destination Management Organizations (DMOs).

Resumo

O presente estudo tem como objectivo explorar as complexidades associadas à avaliação de websites de turismo, com especial enfoque nos sites geridos por Organizações de Gestão de Destinos (DMOs). Os principais propósitos desta investigação são três: identificar os componentes essenciais que definem websites turísticos eficazes, estabelecer uma estrutura abrangente e adaptável para futuras pesquisas, e desenvolver um modelo robusto para a análise de desempenho de websites. Estes objectivos visam colmatar a lacuna entre o conhecimento teórico e a aplicação prática, oferecendo contributos relevantes para a melhoria da presença digital das entidades turísticas.

A revisão da literatura sublinha a importância do design, da usabilidade e da qualidade do conteúdo dos websites na atracção e retenção de visitantes. Realça o papel estratégico dos websites na geração de receita e no fortalecimento das relações com os clientes. Diversas metodologias de avaliação de websites são discutidas, evidenciando a necessidade de adaptação contínua às tendências digitais e aos comportamentos dos consumidores em constante evolução. A Internet e as plataformas digitais transformaram significativamente as práticas de marketing e de gestão no sector do turismo. O estudo destaca como a publicidade online e o comércio electrónico se tornaram elementos cruciais, com investimentos publicitários significativos. As redes sociais amplificaram ainda mais essa influência, reforçando a utilidade da Internet como ferramenta indispensável para o marketing turístico.

A metodologia de investigação inclui a definição do enquadramento, os instrumentos aplicados aos websites, a recolha e análise de dados, fornecendo uma abordagem sistemática para a avaliação dos sites turísticos. A secção de resultados examina aspectos críticos como a análise de tráfego orgânico, a optimização para motores de busca (SEO), a interface do utilizador (UI) e a experiência do utilizador (UX), apresentando dados empíricos que sustentam os fundamentos teóricos.

Os resultados indicam que os websites de turismo desempenham um papel central na mediação de transacções de e-commerce e na disseminação de informação. O estudo detalha a análise de tráfego, a optimização de palavras-chave, a visão global do SEO, bem como a importância da UI e UX. Estes elementos são fundamentais para garantir que os websites respondam às expectativas dos consumidores e se ajustem às dinâmicas do mercado.

A discussão articula implicações teóricas e práticas, sublinhando a necessidade das DMOs manterem uma vantagem competitiva através da avaliação e adaptação contínuas dos websites. A investigação propõe que a avaliação do desempenho vá além das métricas tradicionais, como a taxa de acertos ou a análise de logs, incluindo indicadores modernos como o tempo de carregamento da página, o tempo de resposta do servidor e métricas de envolvimento do utilizador, tais como a duração média da sessão e o número de páginas visitadas por sessão.

As conclusões reforçam o papel essencial das plataformas digitais na indústria do turismo, defendendo uma abordagem estratégica e inovadora na gestão de websites. O

estudo realça a importância de uma abordagem holística que contemple não só melhorias internas, mas também a análise comparativa com concorrentes e entidades semelhantes, visando manter a competitividade no ambiente digital.

Esta investigação oferece uma visão aprofundada sobre a análise de websites de turismo, salientando a relevância de estratégias digitais eficazes para as DMOs. Os contributos resultantes da revisão da literatura, da análise empírica e de estudos de caso práticos proporcionam uma compreensão mais completa das dinâmicas do cenário digital do turismo. Este conhecimento prepara o terreno para futuras investigações e para o desenvolvimento de estratégias orientadas, permitindo que as organizações turísticas melhorem efectivamente a sua presença online e a sua competitividade na era digital. A Internet revolucionou a forma como as empresas interagem com os consumidores. Os websites turísticos não são apenas canais de venda de produtos e serviços, mas desempenham também um papel estratégico na geração de receitas e no estabelecimento de relações duradouras com os clientes. Contudo, muitos websites não conseguem converter visitantes ocasionais em clientes fidelizados, devido a falhas de design, usabilidade e qualidade do conteúdo.

A investigação salienta a necessidade de metodologias robustas para avaliar websites, com vista a transformá-los de hubs informativos estáticos em plataformas dinâmicas geradoras de receita. Métodos como a análise da usabilidade, a avaliação da qualidade do conteúdo e a análise do envolvimento do utilizador são cruciais para compreender a forma como os utilizadores interagem com os websites. A avaliação do desempenho é particularmente crítica para as DMOs, que dependem de uma forte presença online para atrair visitantes. O estudo propõe um modelo de análise que incorpora variáveis como as taxas de conversão, a acessibilidade, a responsividade móvel e o desempenho em SEO. Estas métricas fornecem uma perspectiva holística do desempenho dos websites, apoiando melhorias contínuas e estratégias competitivas no mercado digital.

A evolução tecnológica e as mudanças nos comportamentos dos consumidores têm implicações significativas para o design e a funcionalidade dos websites. A investigação aborda o impacto da adopção de tecnologias avançadas, como a inteligência artificial e o big data, na personalização e na melhoria da experiência do utilizador em websites turísticos. Adicionalmente, a análise comportamental permite identificar preferências e tendências, possibilitando às DMOs a adaptação das suas estratégias digitais em conformidade com as expectativas dos utilizadores.

Este estudo reforça a centralidade das plataformas digitais e dos websites no sector do turismo, especialmente no que respeita às DMOs. A pesquisa recomenda uma gestão estratégica e inovadora dos websites, assente numa avaliação contínua de desempenho, na adopção de tecnologias emergentes para personalização e envolvimento, e na adaptação a novas tendências de mercado. Em síntese, esta dissertação fornece uma análise abrangente dos websites de turismo, sublinhando a importância de estratégias digitais eficazes para as DMOs. Os conhecimentos extraídos da literatura, dos dados empíricos e dos casos práticos contribuem para uma compreensão aprofundada das dinâmicas digitais do turismo, abrindo caminho para investigações futuras e para a formulação de estratégias digitais robustas.

Palavras-chave: Websites de Turismo, Marketing Digital, Avaliação de Websites, Organizações de Gestão de Destinos (DMOs)

General Index

General Index	x
Figures Index	xi
Tables Index	xii
Abbreviations list	xiii
1. Introduction	1
1.1. Characterization of the research	1
1.2. Objective of the research	4
1.3. Organization of Study and Summary of Following Chapters	5
2. Literature Review	7
2.1. The core elements of website analysis	10
2.2. Differentiation of tourism websites	11
2.2.1. Website characteristics:.....	12
3. Methodology	42
3.1 Settings	43
3.2 Website Instrument	43
3.3 Data Collection.....	44
3.4 Data Analysis	45
4. Results	47
4.1 DMO Organic Traffic VS. Destination Overnight Stays	47
4.2 Analysis of Organic Keywords for VisitAlgarve	53
4.3 Search Engine Optimization (SEO) & Traffic Overview.....	57
4.4. User Interface (UI)	61
4.5 User Experience (UX).....	62
5. Discussion	63
5.1 Theoretical implications	63
5.2 Practical implications	65
6. Conclusions	67
6.1 Summary	67
6.2 Limitations	68
6.3 Future work	70
References	72

Figures Index

Figure 1: Conceptual Model.....	20
Figure 2: Hotel Website Evaluation Model.	25
Figure 3: Online search for travel planning information	33
Figure 4: Model ISO 9126.....	38
Figure 5: Model ISO 25010.....	39
Figure 6: Average organic traffic (website visits) among Portuguese tourists from 2017 to 2021.	48
Figure 7: Average organic traffic (website visits) among British tourists from 2017 to 2021.	49
Figure 8: Average organic traffic (website visits) among German tourists from 2017 to 2021... ..	49
Figure 9: Average organic traffic (website visits) among French tourists from 2017 to 2021.....	50
Figure 10: Average organic traffic (website visits) among Spanish tourists from 2017 to 2021.	51
Figure 11: Average organic traffic (website visits) among Dutch tourists from 2017 to 2021. ...	51
Figure 12: Relationship between online presence and physical tourist activities.....	52
Figure 13: Distribution of Visit Algarve Organic Keywords by Country (2017-2021).	53
Figure 14: Trend in Organic Keywords for VisitAlgarve Website (2017-2021).....	54
Figure 15: : Heatmap of Searched locations Across the Algarve Region.....	58
Figure 16: Average monthly search volume keywords.....	59
Figure 17: Average monthly traffic based on keywords	59
Figure 18: Interactive map.....	61

Tables Index

Table 1: Nielsen's (2000) usability heuristics.	14
Table 2: Usability comparison of the two categories of websites.....	15
Table 3: Framework of Proposed Model Developed by the Author's own illustration.....	27
Table 4: Website Success Factor.....	37
Table 5: The Extended Model of Internet Commerce Adoptions (eMICA).....	37
Table 6: Average Organic Traffic.....	47
Table 7: Overnight Stays.....	47
Table 8: Monthly Organic Keywords Distribution for Visit Algarve by Country (January 2017 - December 2021).....	55

Abbreviations list

AHP	Analytic Hierarchy Process
AI	Artificial Intelligence
B2C	Business-to-Consumer
CRM	Customer Relationship Management
DMO	Destination Management Organizations
DMS	Destination Management Systems
DOI	Diffusion of Innovation
eWOM	Electronic Word-of-Mouth
ICT	Information and Communication Technology
IPA	Importance-Performance Analysis
IS	Information Systems
MICA	Model of Internet Commerce Adoption
OTA	Online Travel Agencies
RS	Recommender Systems
SEO	Search Engine Optimization
SEM	Search Engine Marketing
TAM	Technology Acceptance Models
TBP	Theory of Planned Behavior
TOPSIS	Technique for Order of Preference by Similarity to Ideal Solution
TTF	Task Technology Fit
UI	User Interface
URL	Uniform Resource Locator
UX	User Experience

1. Introduction

1.1. Characterization of the research

Systemic change is an underlying constant, continually influencing broad structures and functions across various sectors. Such changes, often catalyzed by socio-economic shifts, population dynamics, or global events, can challenge established norms and require industries to rethink their foundational strategies. The tourism industry, for instance, is particularly sensitive to systemic alterations. Changes in global demographics or economic fluctuations can dramatically impact travel patterns and preferences. Environmental concerns, cultural shifts, and geopolitical factors can reshape tourists' appeal and accessibility. As the industry grapples with these ever-evolving scenarios, it's evident that a deep understanding of systemic change, coupled with adaptability and foresight, is crucial for sustainable growth and success (Sterman, 2000; Hartman, 2021). Among these changes, the tourism industry has experienced significant expansion and diversification, making it one of the fastest-growing economic sectors globally. It has become a major source of revenue for many developing countries, contributing to job creation, poverty alleviation, gender equality, and the preservation and promotion of natural and cultural heritage (UNWTO, 2022). The integration of the World Wide Web in business, specifically the tourism industry, has been a widely discussed topic since the introduction of commercial Internet applications in the early 1990s (Law, Qi and Buhalis, 2010).

The Internet and the World Wide Web have revolutionized advertisement and e-commerce, with Internet advertising expenditures rapidly increasing from \$4.6 billion in 1999 to an estimated \$22 billion by 2004 (Perdue, 2002; Lee and Cho, 2020). By the late 2010s and early 2020s, these expenditures, as well as strategies behind them, had evolved even more, adapting to the ever-changing digital landscape (Chaffey *et al.*, 2019). The travel and tourism sector plays an integral role in online advertisements and e-commerce (Xiang and Gretzel, 2010), with social media platforms amplifying their influence even further (Sharma and Sharma, 2023). Comprehensive research, such as those by Buhalis and Law (2008), Neuhofer, Buhalis, and Ladkin (2012), Haini (2022), and Uysal (2022), underscores the Internet's indispensable role as a tourism marketing tool. They emphasize

its utility in knowledge dissemination, networking, online shopping, and adapting to the rapidly changing global scenarios.

In today's digital era, where online transactions have become the norm, businesses, especially those in customer-oriented sectors like tourism, are rapidly shifting towards e-business models to achieve their organizational objectives. This shift has underscored the importance of maintaining an effective website, crucial for nurturing customer relationships and penetrating new market segments (Law *et al.*, 2010; Pencarelli, 2020). Evaluating website performance has thus become paramount. Traditional metrics such as hit rate and log analysis offer insights into a website's usability and utility. Complementing these are modern metrics like page load time, server response time, and user engagement measures, including average session duration and pages per session (Fayyaz *et al.*, 2020; Jawabreh *et al.*, 2022). For e-businesses, the significance of conversion rates, accessibility, mobile responsiveness, and Search Engine Optimization (SEO) performance cannot be overstated. These diverse metrics collectively offer a holistic view of a website's performance, providing invaluable guidance for continuous refinement and strategic planning in the competitive digital marketplace (Chaffey and Smith, 2022).

Tourism has been significantly impacted by the evolution of the Internet from a mere technological platform to a critical medium for customer relationship management and sales. Law and Bai (2007) emphasize that advanced methods for assessing website performance are crucial in this context for the tourism industry. As a result of these techniques, consumer preferences can be better understood, and websites' market value can be increased. As a cornerstone to improving the quality of online offerings, website evaluations cannot be overstated. In order to ensure that their online presence aligns with consumer expectations and industry standards, tourism organizations must thoroughly assess their websites. In addition to internal improvement, benchmarking against competitors and industry peers is also part of this process. Such comparative analysis is crucial for organizations to maintain a competitive edge in the digital landscape (Rita, Oliveira and Farisa, 2019).

Additionally, Douglas and Mills (2013) emphasize the significance of continuous monitoring of website performance. Organizations must continually evaluate consumer behavior, technological advances, and market trends to ensure that they stay abreast of changing consumer behavior. By monitoring websites regularly, organizations are able to

make timely adjustments, ensuring that their websites remain relevant and effective in meeting the changing needs of consumers. Thus, as the Internet has become increasingly important for selling products and establishing customer relationships, the tourism industry must adopt innovative website performance assessment methods (Chaffey *et al.*, 2019; Purnomo, 2023). In order to understand consumer preferences, improve quality, and maintain competitiveness, these evaluations are essential. Furthermore, organizations must monitor website performance continuously in order to adapt to a dynamic digital environment.

Tourism industry consumers have experienced a paradigmatic shift as a result of the rise of Internet technology. It is characterized by the fact that consumers are increasingly engaged in extensive research and comparison of options prior to making reservations, as (Kim, D. and Kim, S., 2017). According to Dunne *et al.* (2011), the Internet has become an indispensable tool for travelers in making decisions (Do-Thi and Do, 2022). Moreover, this transformation also impacts the relationship between tourists and their suppliers. According to Baggio and Del Chiappa (2013) and Law *et al.* (2009), the Internet has emerged as a critical channel for facilitating this relationship, redefining the forms of interaction and transaction within it. Furthermore, Murphy and Chen (2011) underscore the pivotal role of information relevance and recall in shaping customers' decisions to purchase tourism products, thereby highlighting the importance of content quality and accessibility on digital platforms. Through the advent of sophisticated technology, tourism marketing and management practices have experienced a profound transformation. According to Sigala (2018), this shift can be seen as moving from passive to active approaches involving a greater emphasis on identifying and satisfying the needs of customers. This evolution underscores a more nuanced understanding of consumer behavior and emphasizes the importance of personalized engagement within the digital milieu.

In this context, Foris *et al.* (2020) articulate the necessity for tourism entities to possess a robust comprehension of consumer preferences, coupled with the agility to adapt to the rapidly evolving technological landscape. The development of successful booking websites, therefore, hinges on the integration of consumer insights and technological innovations. Such alignment with consumer expectations serves to enhance the user experience, thereby exerting a significant influence on the decision-making processes within the tourism industry (Jou and Day, 2021).

In summary, this thesis has delved into various facets of the tourism industry, particularly focusing on the evaluation of tourism websites with an emphasis on Destination Management Organizations (DMOs). Through a comprehensive literature review, the criticality of website evaluation for DMOs in the tourism sector has been highlighted, underpinning the importance of digital presence in the current era. The case study on Visit Algarve serves as a practical example, demonstrating the impact of a well-managed website on a DMO's success. This analysis provides tangible insights into the application of theoretical concepts discussed in the literature review, illustrating how an effective online platform can enhance a destination's appeal and visitor engagement. Moreover, the comparison of website traffic with real data adds an empirical dimension to the study. This analysis not only validates the theoretical findings but also offers a quantifiable measure of the effectiveness of website management. It underscores the significance of monitoring online performance and adapting to changing consumer behaviors and market trends. In conclusion, this thesis reaffirms the vital role of the Internet and digital platforms in the tourism industry, especially for DMOs. It underscores the necessity for continuous adaptation and foresight in website management and digital strategies to cater to evolving consumer preferences. The insights gained from the literature review, the case study of Visit Algarve, and the comparison of website traffic collectively contribute to a deeper understanding of the dynamics at play in the digital landscape of tourism. This foundational knowledge sets the stage for further exploration into strategies that tourism organizations can employ to enhance their online presence and overall competitiveness in the digital era.

1.2. Objective of the research

Based on the contextual background and the importance of digital platforms to the tourism industry, as described in the introduction, this thesis proposes three objectives to enhance the understanding and evaluation of tourism websites:

1. **Identification of Key Components:** The primary goal is to meticulously identify and catalog essential characteristics and variables that define an effective tourism website. This includes an exploration of various website features and functionalities that contribute to user engagement and satisfaction. Additionally,

the research will endeavor to incorporate relevant case studies that offer practical insights and exemplify these identified characteristics in a real-world context.

2. **Establishment of a framework for future research:** A secondary objective is to lay down a comprehensive and adaptable framework that can serve as a foundation for future academic inquiries in this domain. This framework will not only encapsulate the current understanding of website evaluation but also provide a flexible structure that can accommodate evolving trends and emerging paradigms in the tourism industry's digital landscape.
3. **Development of a Website Performance Analysis Model:** Lastly, the thesis aspires to conceptualize and develop a robust model for assessing website performance. This model will integrate the identified variables and characteristics, providing a systematic approach to evaluate and benchmark tourism websites. The aim is to offer a practical tool that can aid tourism organizations, particularly DMOs, in analyzing their online presence and implementing strategies for continuous improvement.

Overall, the objectives of this research are designed to bridge theoretical knowledge with practical application, offering a comprehensive guide for enhancing the digital footprint of tourism entities in an increasingly competitive and dynamic online environment.

1.3. Organization of Study and Summary of Following Chapters

The introduction presents the contextual background and significance of digital platforms in the tourism industry, emphasizing the need for effective website evaluation and the shift towards e-business models. It also outlines the research objectives aimed at enhancing the understanding and evaluation of tourism websites.

The second chapter, the Literature Review, explores the critical elements of website analysis within the tourism sector. It examines the importance of website design, usability, content quality, and user engagement. This chapter also discusses various methodologies for evaluating websites and highlights the role of digital platforms in shaping consumer behavior and engagement in the tourism industry.

The third chapter describes the Methodology employed in this research. It details the settings, website instruments used, data collection processes, and data analysis techniques. This chapter provides a comprehensive overview of the research design and the steps taken to ensure the reliability and validity of the study.

The fourth chapter, Results, presents the findings of the research. It includes an analysis of organic traffic versus destination overnight stays, an examination of organic keywords for Visit Algarve, and an overview of search engine optimization (SEO) and traffic. Additionally, it covers user interface (UI) and user experience (UX) aspects, providing insights into the performance and effectiveness of the Visit Algarve website.

The fifth chapter, Discussion, interprets the results in the context of theoretical and practical implications. It discusses the relevance of the findings to the existing body of literature and the potential impact on tourism website management practices. This chapter also highlights the limitations of the study and suggests areas for future research.

Finally, in chapter six, the main aspects are summarized, providing a concise overview of the study's key findings and contributions. This chapter also reiterates the importance of continuous adaptation and foresight in website management and digital strategies to meet evolving consumer preferences and maintain competitiveness in the tourism industry.

By structuring the dissertation in this manner, the study offers a comprehensive examination of tourism website evaluation, providing valuable insights for both academic research and practical application in the field.

2. Literature Review

The Internet has emerged as the quintessential channel for businesses and organizations to communicate with their customers. In the context of business-to-consumer (B2C) interactions, website design plays a vital role in capturing and retaining visitor interest (Garett *et al.*, 2019; Vu, Proctor and Hung, 2021). It is important to note that websites serve more than just as a channel for the sale of products and services, they play a strategic role in the generation of revenue by attracting new customers and nurturing prospects. The digital landscape, however, is filled with examples of websites that, despite their potential, fail to convert casual visitors into loyal paying customers. There has been a growing interest among practitioners and scholars in the realm of effective website evaluation methodologies as a result of this discrepancy (Chiou, Lin and Perng, 2010). The ability to understand the multiple elements that contribute to the success or failure of a website has become a necessity in a market where online presence can make or break a business. An effective website design encapsulates not only aesthetic appeal, but also usability, content relevance, engagement features, and user experience as a whole. Therefore, it has become increasingly important to investigate robust methodologies for evaluating websites. The objective of these methods is not only to quantify the effectiveness of a website, but also to provide actionable insights that can transform it from a static informational hub into a dynamic revenue generator (Vu *et al.*, 2021).

A multitude of methodologies have been developed to evaluate websites, each examining important aspects such as usability, design, content, quality, user acceptance, and user satisfaction (Morrison, Taylor and Douglas, 2005; Law *et al.*, 2010; Vu *et al.*, 2021). These methods provide valuable insights into how users interact with and perceive websites. An important gap in the literature on evaluation is the assessment of the alignment between an organization's online strategy and its actual web presence. There is an important aspect of this perspective that is often overlooked. It pertains to how well the company's strategic objectives are reflected and executed through its online platform (Chiou, *et al.*, 2010; Vu *et al.*, 2021). This strategic alignment is crucial, as it not only influences user experience but also shapes the overall effectiveness and success of the website in achieving business goals (Chaffey and Smith, 2022).

In the modern digital landscape, Information Systems (IS) research has evolved to give substantial attention to the intricacies of website design, performance, and characteristics. Recognizing websites as the primary digital facades for organizations, they act as pivotal platforms facilitating both business and non-commercial interactions in an increasingly interconnected world (Tarafdar and Zhang, 2005; Chege *et al.*, 2020; Saura, 2021). The design of these websites, which serve as the point of interaction between companies and their stakeholders, whether they be employees or customers, is critical to achieving operational excellence. The determinants of website effectiveness are extensively studied in contemporary research. A website encompasses a wide range of aspects, from the depth of information provided, to fostering user loyalty, optimizing the customer buying journey, to ensuring seamless usability. Furthermore, with rapid technological advancements and changes in consumer behavior, website design and functionality have become more dynamic, emphasizing the need for continuous adaptation and innovation (Murphy and Chen, 2011; Thaler and Tucker, 2013; Chege *et al.*, 2020; Jou and Day, 2021).

In the multifaceted digital realm, websites serve as conduits for diverse activities such as commerce, information acquisition, entertainment, and research, resulting in their classification into a variety of categories such as retailing, news, and search-oriented platforms (Tarafdar and Zhang, 2005; Rita *et al.*, 2019). It is important to note that the Internet, in this context, is emerging as a cost-effective avenue for the promotion of travel destinations, underscoring the importance of developing effective online marketing strategies for websites. Travel and tourism are major economic drivers worldwide, and these strategies are crucial to converting virtual visitors into actual tourists (Luna-Nevarez and Hyman, 2012; Roy *et al.*, 2017). The design of modern websites is evolving from text-centric layouts to more visually appealing multimedia elements, encouraging designs that are simpler and more engaging as well as more visually appealing (Beaird, Walker and George, 2020; Shabani *et al.*, 2021). The digital landscape is increasingly blending informational content with commercial activities, coupled with a restrained use of banner advertisements. A growing integration of social media and multimedia applications indicates that web-based technologies will continue to evolve, reflecting the dynamic nature of user engagement (Sutcliffe, 2009; Lalmas, O'Brien and Yom-Tov, 2014; Shawky *et al.*, 2020). Moreover, the literature highlights several best practices for the design and functionality of websites. The creation of platforms that are not only useful

and user-friendly, but also aesthetically pleasing is paramount. Incorporating user-generated content from social networking services can enhance the responsiveness of websites, customize content, and increase the lifetime value of visitors (Luna-Nevarez and Hyman, 2012; Beaird *et al.*, 2020). In an ever-evolving digital ecosystem, when these practices are implemented effectively, they can significantly enhance the user experience and ensure that websites remain relevant and competitive (Purnomo, 2023).

In the evolving tourism landscape, the importance of web and social media presence for destinations has increased as the shift from offline to online travel has occurred. In addition to serving as platforms for inspiration and information, e-Destinations assist Destination Management Organizations (DMOs) in improving their digital presence through the use of Destination Management Systems (DMS) (Buhalis and Wagner, 2013; Estêvão, Carneiro and Teixeira, 2020; Gretzel, 2022). It is noteworthy that many DMOs still rely on DMS providers for web presence enhancement despite the advent of information and communication technologies, highlighting a research gap in evaluating DMO websites. Tourism management organizations have traditionally been instrumental in organizing tourism activities and promoting destinations, but technological advances have challenged their operational models. Despite the proliferation of freely available tools, a product of advancements in ICT (Information and Communication Technologies), a significant number of DMOs prefer to rely on the specialized expertise of DMS providers, valuing the enhancement in web presence that follows implementation of the system (Foris, *et al.*, 2020a; Gretzel, 2022). As a result of these changes, DMOs must adapt to serve as boundary spanners and intelligent agents capable of making strategic decisions. The advent of smart tourism further necessitates a paradigm shift in DMOs' roles, requiring new governance philosophies and a focus on public-private-consumer partnerships, technology-mediated co-creation, and an ecosystem perspective. As the digital tourism era rapidly evolves, it is imperative that DMOs undergo this transformation so that they can effectively manage smart tourism initiatives. To effectively navigate and capitalize on the opportunities presented by digital and smart tourism, DMOs must evolve and adapt to address this gap (Estêvão *et al.*, 2020).

Studies have attempted to determine the factors that influence a website's effectiveness. Contemporary marketing studies have underscored the importance of user-centric perspectives in defining the hallmarks of successful e-commerce platforms. According to recent scholarly consensus, a successful website is one that not only attracts customers,

but also introduces trust, credibility, and reliability in them, leading to a sense of customer satisfaction. Accordingly, studies have been conducted to examine customer perceptions of the value delivered by various website features, as well as examine the pivotal attributes of website quality from the consumer's perspective (Flavian, Gurrea and Orus, 2009; Palmer, 2010; Rita *et al.*, 2019; Jawabreh *et al.*, 2022).

A focus of marketing inquiries has been on how store environment traits affect customer moods and buying preferences. The use of design elements, particularly visual cues such as layout and color, has been acknowledged as instrumental in eliciting favorable consumer reactions and facilitating consumer satisfaction (Kotler, Bowen and Makens, 2017; Rita *et al.*, 2019; Marceda Bach *et al.*, 2020; Wibowo *et al.*, 2020). As a result of this adaptation, a concept known as 'web atmospherics' has emerged in the e-commerce realm. As a term encompassing the deliberate creation of online spaces to create positive cognitive and affective effects on consumers, web atmospherics seeks to elicit favorable consumer responses. With the strategic use of web atmospherics, e-commerce websites not only enhance the user experience, but also build trust and credibility, which ultimately leads to greater customer loyalty and satisfaction (Dailey, 2004; Flavian *et al.*, 2009; Woodside, Bernal and Kang, 2019).

2.1. The core elements of website analysis

It is imperative to examine tourism-related websites critically in light of the burgeoning expansion of tourism as a key economic driver. In addition to serving as passive repositories of information, these platforms also facilitate communication, facilitate e-commerce transactions, and facilitate information dissemination (Phippen, Sheppard and Furnell, 2004; Law and Bai, 2007; Kaur, Kaur and Kaur, 2016; Jou and Day, 2021). Websites have been described as playing a fundamental role in the Internet-mediated tourism marketplace by Buhalis and Law (2008) but according to Isti'annah (2020), they also facilitate visitor engagement and incite social action through hyperlinked ecosystems of content.

The implications of this engagement are particularly pertinent in light of the emerging global interconnectivity forecasted by Gretzel *et al.* (2015a) which implies that travel trends and consumer behaviors may evolve. Tourism industry leaders must therefore be

increasingly aware of the importance of cultivating relationships and fostering public discourse in such a context. Consequently, official tourism websites play both the role of architects of identity and the role of initiators of action (Estêvão *et al.*, 2020; Isti'anah, 2020)

There are, however, a number of geographical disparities in the functionality and intent of websites associated with digital tourism marketing at present. As indicated by Luna-Nevarez and Hyman (2012), Eastern countries tend to place a higher value on information dissemination, whereas Western counterparts place a higher priority on commercial engagement. A closer examination reveals that Asian DMOs have a nuanced marketing strategy that focuses on browsing rather than transaction. Studies have demonstrated that this dissymmetry may marginalize users who prefer to procure and purchase information online, thereby highlighting the inadequacy of current practices within these regions. To ensure the sustainability and growth of the tourism sector in a digitally interconnected world, it is critical that website objectives are strategically aligned with user expectations and market trends (Kaur *et al.*, 2016; Behera *et al.*, 2020; Herhausen *et al.*, 2020).

2.2. Differentiation of tourism websites

Despite the dynamic nature of the tourism industry, the advent of the internet has triggered a significant shift in customer engagement strategies. Websites have become indispensable platforms for tourism businesses, facilitating nuanced communication channels and enhancing customer relations (Jiménez-Barreto and Campo-Martínez, 2018; Vieira *et al.*, 2021). According to Phonthanakitithaworn *et al.* (2021), online features such as reservation systems and destination guides empower consumers with the ability to curate their own travel experiences. Online Travel Agencies (OTAs) have increased the competitive environment as a result of the rise of online travel agencies (Hao *et al.*, 2015). In addition to providing comprehensive travel services, OTAs also take advantage of the ubiquity of mobile technology and roaming services, enabling real-time transactions that are not constrained by geography.

It is imperative to provide reliable and comprehensive information in light of this competitive environment. The performance of leading travel websites such as TripAdvisor and Booking.com is evaluated by Drozdowska and Duda-Seifert (2016),

highlighting their dominant market share, particularly for hotel bookings. A significant influence on consumer preferences can be attributed to Electronic Word-of-Mouth (eWOM). It has been confirmed by Bronner and de Hoog (2016) that online reviews play a significant role in boosting hotel reservations, as they provide prospective customers with critical information regarding the experience of a hotel. Therefore, the hospitality sector has recognized the strategic imperative of leveraging websites as powerful marketing tools in addition to being informational channels (Rita *et al.*, 2019). Throughout this discourse, a differentiated approach to website design and content curation is unequivocally advocated within the tourism industry. Tourism businesses should consider transcending traditional practices in order to enhance their online presence with a blend of interactivity, information, and eWOM facilitation based on the empirical evidence. It is imperative that tourism organizations differentiate themselves from their competition in order to survive in the increasingly digitalized and consumer-driven market (Kanje *et al.*, 2020; Pourfakhimi, Duncan and Coetzee, 2020; Reyes-Menendez *et al.*, 2020).

2.2.1. Website characteristics

Research has shown that online tourism applications, tourism website design, and factors such as user perception, attitude, and behavior are crucial in determining the success of an online tourism business (Corbau *et al.*, 2019; Tavakoli and Wijesinghe, 2019). According to Vladimirov (2012), a tourist's trust and satisfaction directly influence their decision to make a purchase from a tourism website. Studies have found that tourists are significantly influenced by tourism websites, particularly by the quality of content and website design. The quality of content and the design of tourism websites play a significant role in influencing tourists. Moreover, scholars have identified numerous website features that influence users' interactions with online tourism services, including aesthetic design, clarity, legibility, navigation, content quality, relevance, updatability, flexibility, speed, errors, interactivity, and security (Tavakoli and Wijesinghe, 2019; Beard *et al.*, 2020; Martínez-Sala, Monserrat-Gauchi and Alemany-Martinez, 2020). Nevertheless, numerous tourism entities grapple with developing websites that captivate, inform, and facilitate user interaction effectively (Alcántara-Pilar *et al.*, 2018). Wang *et al.* (2015) identified a plethora of problems encompassing functionality, user-friendliness, security, and privacy on hotel websites. Asserting the same, Luna-Nevarez and Hyman

(2012) identified critical usability challenges in destination websites, such as convoluted navigation, cluttered interfaces, inconsistent layout, inflexible design, and constrained search functions. These usability shortcomings can detrimentally affect user perceptions and attitudes towards the tourism websites.

The initial engagement with a tourism website is pivotal, influencing the creation of users' impressions (Alcántara-Pilar *et al.*, 2018), with usability being a major factor in shaping these initial opinions (Sun *et al.*, 2017). A suboptimal website usability can impede user performance, leading to a decline in user satisfaction as well as tangible economic consequences. Mohd and Zaaba (2019) report that fewer than 29% of online searches result in actual purchases, resulting in usability and security issues.

According to Leung *et al.* (2016), the majority of hotel website visitors do not return after experiencing usability difficulties. It is evident that such usability challenges are not trivial in economic terms; the online business sector suffered losses as a result of poor website usability. Due to this, optimizing the usability of websites is an essential aspect of online tourism development (Fayyaz *et al.*, 2020; Huang, 2020).

It is important to recognize that usability encompasses both the ease of use and the degree of user-friendliness (Sun *et al.*, 2017; Alcántara-Pilar *et al.*, 2018). Martinez-Sala *et al.* (2020) elaborate further on this by identifying several factors that impact website usability, including content quality, ergonomic design, efficiency in processes, error management, adaptability, interactive capabilities, and content distribution. The concept of usability is further refined by Alcántara-Pilar *et al.* (2018), which defines it as the ease with which users can navigate, the effectiveness of site organization, the clarity and succinctness of product and service descriptions, the ease of downloading and registering, as well as the overall enjoyment of browsing.

There are numerous ways to measure usability, given its varying definitions. Ilbahar and Cebi (2017) describe usability assessment parameters through the consideration of information system design factors. As part of their proposed criteria, they include visual appeal, user control, operational efficiency, supportive features, learnability, dissemination of information, multilingual support, and ease of navigation. A unique set of criteria is adopted by Law (2019), emphasizing visual representation, accessibility, easy retrieval of information, content relevance, security, and responsiveness as pivotal

elements in evaluating the usability of a website. Nielsen's seminal work (2005) offers a suite of usability heuristics, consisting of ten key metrics that elucidate various aspects of usability, presented in Table 1, and these heuristics have been extensively adopted in subsequent research for measuring website usability (Díaz, Rusu and Collazos, 2017; Huang, 2017; Pensabe-Rodriguez *et al.*, 2020). These heuristics, established two decades prior to, are instrumental in discerning the usability distinctions between general e-commerce and tourism-specific websites. Websites that provide travel and leisure information, offers services, promotes social engagement, creates content, builds communities, personalizes the user experience, and promotes user engagement (Luna-Nevarez and Hyman, 2012; Wang *et al.*, 2015). As a result, general e-commerce sites focus on product information accuracy, catalog display, shopping efficiency, transaction security, product search functionality, and vendor trustworthiness (Huang, 2017; Pensabe-Rodriguez *et al.*, 2020). As a result of insights obtained from pertinent literature, Table 2 presents an elaborate comparison of these web categories.

Table 1 Nielsen's (2000) usability heuristics.

No.	Usability heuristic	Heuristic keywords
H1	Visibility of system status	Informed status, progress or changes indication, feedback provision
H2	Match between system and the real world	User language, familiar real-world conventions, logical order
H3	User control and freedom	Control, undo and redo functions availability, free exit
H4	Consistency and standards	Consistent design features, platform conventions and standards
H5	Error prevention	Avoid errors, error message, same problem occurrence prevention
H6	Recognition rather than recall	Visible option and action, remember information, retrievable instructions
H7	Flexibility and efficiency	Efficient use, simplicity, efficacy, alternative means of access or operation
H8	Aesthetic and minimalist design	Minimalist design, clean interface, visible elements
H9	Help user recognise, diagnose errors	Precise error indication, constructive suggestion, clear, detailed content
H10	Help and documentation	Retrievable documentation, task-focused help, adequate information

Source: Huang (2020: 5).

A number of scholars have argued, following Yeung and Law (2004), that the usability of a website indicates how effectively and satisfactorily users can interact with it. To identify tourism websites' strengths and weaknesses, they recommend that a usability assessment

be conducted across several dimensions, including language, visual design, information architecture, and navigability, as a result of their study (Ilbahar and Cebi, 2017; Foris, Tecau, *et al.*, 2020; Martínez-Sala *et al.*, 2020). Agag and El-Masry (2017) recommend integrating user interaction with usability assessments as part of a holistic approach. As a contribution to this area, Martínez-Sala *et al.* (2020) investigate usability factors such as graphic design, navigability, content, ergonomics, processes, error management, accessibility, personalization, and interactivity. For the evaluation of the usability of online travel websites, a comprehensive framework is essential as a benchmark for aligning a site's strategic execution with the objectives and goals of the site (Chiou, Lin and Perng, 2010; Martínez-Sala *et al.*, 2020; Pensabe-Rodríguez *et al.*, 2020).

Table 2 Usability comparison of the two categories of websites.

Category	Usability feature	Reference
Tourism websites	Tourism service functionality, social connection, interactive website, tourism information quality, tourism service quality, user-generated content, user community , social media applications, accessibility, personalization, website playfulness and enjoyment , convenient shopping, interactivity, customer service, trust, reservations, contact information, promotions, responsiveness, ease of use, ease of passing through the sub-pages, ease of navigation, suitability of the URL, interoperability , website update, understandable icons, help function , font size, compatibility with browsers, links, relevancy, currency, attractiveness , language, layout, information architecture, user interface, environment, source, aesthetics, security, privacy	Vladimirov (2012); Escobar-Rodríguez and Carvajal-Trujillo (2013); Fernández-Cavia <i>et al.</i> (2014); Akincilar and Dagdeviren (2014); No and Kim (2015); Wang <i>et al.</i> (2015); RuelNovabos <i>et al.</i> (2015); Chung <i>et al.</i> (2015); Leung <i>et al.</i> (2016); Agag and El-Masry (2017); Sun <i>et al.</i> (2017); Ilbahar and Cebi (2017); Liasidou (2018); Wu and Cheng (2018); Alcántara-Pilar <i>et al.</i> (2018); Law (2019); Zhou <i>et al.</i> (2019); Vyas (2019); MartínezSala <i>et al.</i> (2020)
E-commerce websites	Shopping efficacy , effectiveness, satisfaction, merchandise catalog presentation, merchandise information quality, merchandise information updating , website layout, merchandise search efficiency , web page error rate, merchandise promotions, merchandise prices, website popularity , consistency, credibility of the seller and the goods , navigation system, media use, interactivity, usefulness, ease of use, shopping functionality , operational logic, quality of presentation, privacy protection, website security, ease of learning, memorability, typography , website structure and appeal	Nielsen (2000); Vila and Kuster (2011); LunaNevarez and Hyman (2012); Cebi (2013); Huang and Benyoucef (2013); Suárez Torrente <i>et al.</i> (2013); Liu and Park (2015); Díaz <i>et al.</i> (2017); Liang <i>et al.</i> (2017); Ilbahar and Cebi (2017); Corbau <i>et al.</i> (2019); Georgsson <i>et al.</i> (2019); Mohd and Zaaba (2019); Li <i>et al.</i> (2020)

Note: indicated in **bold-italic** are some specific usability feature differences between tourism websites and e-commerce websites. Source: Huang (2020: 6).

According to Fernandez-Cavia et al. (2014), content quality, structural information, usability, accessibility, interactivity, and integration of social media and mobile platforms are essential factors in evaluating websites. Although their analysis provided a comprehensive look at website functionality, it failed to examine the subtleties of usability strengths and weaknesses. Current tourism websites must be thoroughly assessed for their usability to bridge this gap. Due to this gap, authors have claim that tourism websites will remain untapped as long as usability issues persist. These evaluations should not only identify barriers to effective and satisfying user interaction, but also suggest improvements that prioritize user experience. In order to foster an engaging, user-centric environment that promotes interaction and ultimately increases user satisfaction, online tourism platforms must understand and address these usability concerns. Tourism websites must adopt this approach in order to maintain their competitiveness in the digital environment as user expectations evolve (Akincilar and Dagdeviren, 2014; Kaur, Kaur and Kaur, 2016; Huang, 2020; Macakoğlu, Peker and Medeni, 2023).

A variety of expert-centered evaluation methods are available, including counting, automated, and numerical methods. Novabos et al. (2015) presented three distinct methods of expert-centered evaluation. Vasto Terrientes et al. (2015) describe the counting method as a systematic method of assessing the performance and robustness of a website by systematic counting of its features. However, with the automated method, data-driven analysis of user interaction can be obtained by tracking and recording website usage statistics (Novabos, Matias and Mena, 2015). Moreover, Leung et al. (2016) explain that the numerical method is an approach that utilizes mathematical models to evaluate the functional capabilities of a website. Adding to these, the cognitive walkthrough, a process adopted by Privitera et al. (2019), allows experts to apply cognitive theory in identifying usability hurdles, providing a theoretical lens to dissect user-interface interactions. Meanwhile, the user-centered approach focuses on user satisfaction and perception through the consideration of the actual user's perspective in assessing satisfaction and perception across a variety of website aspects. For instance, Peute et al. (2015) utilized the "think aloud" technique to explore the usability of a medical data query tool. It involves users verbalizing their thoughts while performing specific tasks, providing an insight into their cognitive processes and the discovery of implicit thought patterns. Combined, these methods are an effective means of evaluating and improving the usability of digital platforms, both expert and user-centered.

Using a performance measurement approach, Roberts et al. (2016) examined the disconnect between objective performance metrics and subjective user perceptions in the context of electronic map systems. In order to discern whether users are effectively accomplishing intended outcomes, this technique meticulously combines quantitative and qualitative metrics. The key performance indicators used in this assessment method include task completion time, level of assistance required, and number of actions taken to complete tasks. Building on this empirical foundation, Díaz et al. (2017) implemented a heuristic evaluation within their usability study to pinpoint usability flaws. This method relies on users applying predefined design principles as a checklist to identify and categorize interface issues. Complementing these approaches, Tüzün et al. (2016: 73) employed user testing to evaluate products based on user needs, which "involves observing a number of users performing a predefined list of tasks to identify the usability problems they encounter during their interaction. Collectively, these methods provide a multifaceted framework for understanding and refining user experience across digital platforms.

The work of Alcántara-Pilar et al. (2018) delves into the most frequently examined attributes of tourism websites, highlighting user satisfaction, perceived risk, and usability. These dimensions provide a valuable understanding of user interactions with tourism platforms. While the studies provide broad insights, they fail to provide actionable usability evaluation criteria that can guide tourism organizations in creating websites that are both effective and efficient. There is an emphasis throughout literature on information system design and human-computer interaction on the need to adopt user-centered design principles, as demonstrated by Georgsson et al. (2019), in which website development is aligned with user needs and behaviors. This stance is emphasized by Wu and Cheng (2018), who posits that user perception is paramount to business and information systems. As a result of Huang (2020), it is evident that user involvement is critical to evaluating attitudes and satisfaction, particularly when it comes to tourism websites. According to the consensus, user engagement is not only beneficial to online tourism entities, but is also essential to their success.

The dynamic landscape of online tourism services has led Phonthanakitithaworn et al. (2021) to identify five service quality attributes that are critical for hotel booking websites: functionality, fulfillment, customer relationship, content, and security. These attributes, fundamental across various studies, require further investigation regarding

their interdependencies, a task that is considered insufficient by the Kano model (Phonthanukitithaworn et al., 2021). As outlined in Baki (2020), the importance of high-quality web interfaces in converting visitors into customers is highlighted, highlighting the sophistication of the digital engagement process. Although various methods have been proposed to evaluate the effectiveness of travel website designs (Jeong and Lambert, 1999, 2001; Law and Ngai, 2005; Morrison, Taylor and Douglas, 2005; Pont and McQuilken, 2005; Law and Cheung, 2006), no single method seems to outperform others (Law and Bai, 2007). Within the context of hospitality and tourism, this study examines Wen's (2009) three dimensions model of website quality, which encompasses information, system, and service quality. In addition, Wen (2012) discusses the technical performance metrics of websites, which are integral to the user experience, such as page size, requests, and latency. It is crucial to ensure secure user interactions by implementing robust cybersecurity measures, including SSL/TLS (stands for secure sockets layer and transport layer security) certificates. It is expected that mobile-responsive design will become one of the primary factors in website usability over the next few years, aligning with the shift toward ubiquitous computing and customer-centric design. Madriz and Tejedor (2020) assert that in the current trajectory towards a "mobile-first" ideology, mobile-responsive design will become a prevalent factor in website usability.

In the tourism industry, assessing destination websites, hotels, travel agencies, and travel booking centers is of paramount importance. These assessments typically validate aspects like website quality or persuasiveness, which are key drivers of consumer engagement. The concept of website quality has evolved from traditional service quality metrics, the SERVQUAL dimensions—tangibles, reliability, responsiveness, assurance, and empathy—to suit digital interactions, where consumers frequently engage with technology rather than service personnel (Jiménez-Barreto and Campo-Martínez, 2018). Perceived website quality, the consumer's cumulative assessment of a website's excellence, is critical. It has far-reaching impacts on satisfaction, loyalty, repurchase intentions, electronic word-of-mouth (e-WOM) spread, and the overall value gained from online experiences.

Key dimensions for the success of destination websites include (Jiménez-Barreto and Campo-Martínez, 2018: 5):

- ease of use (accessibility and information retrieval)

- responsiveness (efficiency in solving user problems)
- fulfillment (meeting service and product promises)
- security/privacy (confidence in website security)
- personalization (adaptability to unique user characteristics)
- visuals (colors, images, and font)
- information quality (variety, consistency, and up-to-date information)
- trust (credibility of the offer and brand)
- interactivity (elements facilitating interaction between the website and users)

In tourism research, it has been demonstrated that co-creation experiences are essential to enhancing consumer satisfaction. Tourism research has established the importance of co-creation experiences in enhancing consumer satisfaction. According to Mathis et al. (2016) and Shaw (2014), such experiences have a positive impact on the overall experience of a trip. In contrast, Sirgy (2010) proposes that co-creation experiences moderate the relationship between value perception and satisfaction. The importance of destination website quality as a catalyst for shaping tourist intentions and attitudes has been highlighted in recent studies. According to Chung et al. (2015), high-quality destination websites are strongly associated with increased user intentions to engage with the site and visit the destination. Frequently, these types of websites evoke emotional responses, instilling confidence and excitement, which Loureiro (2015) found to be influential in shaping positive user attitudes towards the website, with a subsequent increase in the likelihood that users will return to the site and recommend it to others. However, despite these insights, it has yet to be determined whether perceived website quality directly influences user willingness to participate in co-creation. However, a body of research indicates that online service quality (e-SQ) is positively correlated with online co-creation behaviors (Lam, Ismail and Lee, 2020; Glyptou, 2021; Woyo, Rehman and Rather, 2023). In particular, Elsharnouby and Mahrous (2015) discovered that the seven dimensions of e-SQ have a direct and positive impact on users' attitudes towards online co-creation activities, suggesting potential avenues for further investigation (Jiménez-Barreto and Campo-Martínez, 2018).

Each of the dimensions and categories are described as follows, as presented in Figure 1:

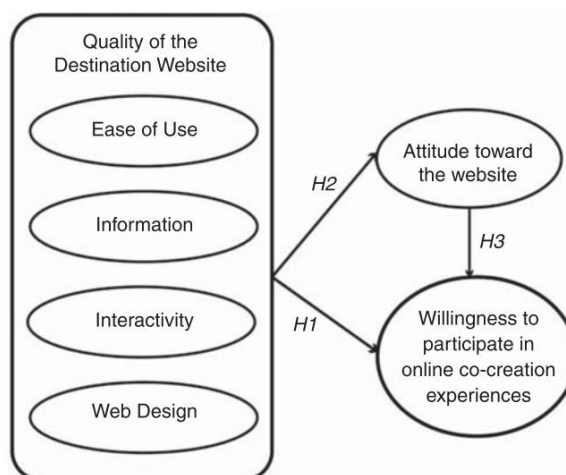
(1) Visual design: This includes website size (small - smaller than two screens with a 1,024x768 pixel resolution, or large - equal to or greater than two screens); website structure (balanced - elements present on both right and left sides, or unbalanced - only on one side); number of images (few - less than ten, or many - equal to or greater than ten); and presence or absence of videos, animated images (sliders), or audio on the website.

(2) Ease of use: This covers the presence or absence of search tools, tabs for changing languages, the type of scroll up or down throughout the website, and the number of categories in the main menu (few - five or fewer, or many - more than five).

(3) Text and content information: This category includes the presence or absence of a section related to each island, as well as the total percentage of space occupied by words (few - 25% or less, or many - more than 25%).

(4) Interactivity: This section determines the existence of links to social networks, destination weather information, event calendars, accommodation and activity reservation engines, interactive spaces for user participation, and a contact section for suggestions (Jiménez-Barreto and Campo-Martínez, 2018: 8-9).

Figure 1 Conceptual Model.



Source: Jiménez-Barreto and Campo-Martínez (2018: 8).

The multifaceted characteristics of a website, such as its interface, navigation, content, and technical reliability, are critical across all four stages of a consumer's decision-making process: information search, evaluation, and purchase. A user interface encompasses more than the visual and multimedia design, but also navigation ease, relevance to content, contact accessibility, interactivity, responsiveness, and logical architecture. This concept encompasses a variety of characteristics, including consistent functionality, fast loading times, secure transactions, and software that is reliable (Hsieh and Yang, 2019; Setyaning and Nugroho, 2020; Al-Hasan, Khalil and Yim, 2021; Axenbeck and Breithaupt, 2021). According to Gupta and Utkarsh (2014), these characteristics should not be isolated to specific stages but should be considered integral throughout the entire purchasing process. In the evaluation phase as well as during the initial search, the quality of information is equally crucial.

The concept of website quality is defined by Park et al. (2007) as the customer's summative assessment of the site's quality, which is comprised of six principal dimensions: fulfillment, ease of use, security/privacy, content quality, responsiveness, and visual aesthetics. On a similar note, IP et al. (2012) advocate for a four-pronged perspective on website effectiveness, taking into account expert appraisals, consumer purchasing and revisiting intentions, and user satisfaction as key indicators, while recommending that network statistics not be relied upon too heavily, since they may not accurately reflect effectiveness. Further, IP et al. (2012) emphasize the importance of 'website functionality,' specifically the adequacy of content and information in determining a website's quality (Gupta and Utkarsh, 2014; Baki, 2020).

Researchers continue to emphasize the importance of website design and digital marketing in shaping messaging, perceived quality of offerings, and brand image in the hospitality and tourism industries (Ting, Kuo and Li, 2012; Baki, 2020; Pencarelli, 2020). In contrast to the former situation of relying on travel agencies and personal networks for travel information (Xiang and Gretzel, 2010), the present scenario involves individuals independently utilizing online resources to plan their travels (Law, Qi and Buhalis, 2010; Buhalis and Amaranggana, 2015; Gretzel, *et al.* 2015b; Ivars-Baidal *et al.*, 2019). During the digital age, destination websites have become integral platforms for promoting tourist destinations (Sigala, 2003; Bastida and Huan, 2014; Novabos, Matias and Mena, 2015). Although travelers have access to a wide range of online resources, the official websites of the destination often serve as the most authoritative and influential source of

information when making travel decisions (Neuhofer, Buhalis and Ladkin, 2012; Huang, Weiler and Assaker, 2015; Bifulco *et al.*, 2016). The correlation between website allure and user-friendliness and the conversion of site visitors to actual tourists remains significant (Wang and Fesenmaier, 2004; Cantalops and Salvi, 2014). As digital technologies continue to evolve and user behavior changes, these online touchpoints will become more significant, further strengthening their role as decision makers in the travel process (Guo, Liu and Chai, 2014; Ivars-Baidal *et al.*, 2019).

Tourism destination websites have evolved into comprehensive platforms that assist travelers in all phases of their journey, including the planning phase prior to their travel, the experience phase once they arrive, and the post-trip reflection phase. These platforms allow tourists to explore potential destinations virtually, aiding in their decision-making process, providing up-to-date information during their visit, and providing a space to share their experiences upon return (Neuhofer, Buhalis and Ladkin, 2012; Buonincontri and Micera, 2016; Jiménez-Barreto and Campo-Martínez, 2018; Femenia-Serra, Neuhofer and Ivars-Baidal, 2019). A growing number of studies have examined how destination websites can be used to promote, market, and brand businesses effectively. These websites provide a variety of benefits to tourists, including enabling them to virtually experience their destination, simplifying the booking process, and empowering them to make direct bookings, which gives them greater autonomy over their travel plans (Baggio and Del Chiappa, 2014; Benckendorff, Sheldon and Fesenmaier, 2014; Petit, Velasco and Spence, 2019; Foris, Tecau, *et al.*, 2020; Jawabreh *et al.*, 2022). The use of engaging visual content has been shown to attract potential visitors' interest and help them imagine the essence of the place they plan to visit (Han and Mills, 2006; Özdemir and Gök, 2009; Kumar *et al.*, 2020). Today, travelers are not just passive consumers of information; they are active creators of content as a result of the rapid proliferation of digital networks. The use of electronic word-of-mouth (e-WOM) and co-creation activities contributes to the reputation and allure of destinations online. This interactive dynamic has become an integral part of destination marketing strategies, leveraging user-generated content to enhance authenticity and engagement (Pan, MacLaurin and Crotts, 2007; Litvin, Goldsmith and Pan, 2008; Volo, 2010; Mathis *et al.*, 2016; Gosal, Andajani and Rahayu, 2020; Setyaning and Nugroho, 2020; Bu, Parkinson and Thaichon, 2021).

By integrating IT-based services into organizational frameworks, service quality models have evolved, which are indispensable for fostering positive customer relationships and

in evaluating service quality (Little and Little, 2009; Rita, Oliveira and Farisa, 2019; Jou and Day, 2021; Phonthanukitithaworn *et al.*, 2021). In the context of travel websites, e-service quality has become a pivotal element for enhancing competitive edge, with higher levels of e-service quality potentially increasing market share and profitability (Abd-El-Salam, Shawky and El-Nahas, 2013; Roger-Monzó, Martí-Sánchez and Guijarro-García, 2015). Quality of products and services is crucial to the sustained success of any business (Ali and Raza, 2017), and service quality has a significant impact on customer retention and brand loyalty (Phonthanukitithaworn *et al.*, 2021; Chan, Chiu and Ho, 2022b). It is essential that booking platforms provide relevant information in order to captivate and persuade consumers to utilize the services. As a measure of a booking website's operational success, its usability—a combination of its efficiency, effectiveness, and ability to satisfy customers—is an important component. Consequently, the perceived usability of a travel business is a key determinant of its performance and market position. In light of this, the perception of a booking website's quality and ease of use is fundamental to achieving business objectives in the travel industry (Lee, Kozar and Larsen, 2003; Buhalis and Law, 2008; Flavian, Gurrea and Orus, 2009; Ip, Law and Lee, 2012; Georgsson *et al.*, 2019; Foris, Tecau, *et al.*, 2020).

Providing information on DMO websites helps individuals plan their trips more effectively, and the information regarding tourism resources of a destination enhances visitors' familiarity with the destination, thus increasing their interest in traveling there (Cohen, 1972; Hayes-Roth, 1977; Baloglu, 2001; Basala and Klenosky, 2001; Kerstetter and Cho, 2004; Skadberg, Skadberg and Kimmel, 2004; Žabkar, Brenčič and Dmitrović, 2010). The familiarity of a destination does not necessarily result from actual experience; rather, the familiarity can also result from indirect experience acquired through acquiring information about a destination. As visitors become familiar with a destination, they enjoy escaping from their everyday environment and discovering its novelty, increasing their desire to visit (Sánchez *et al.*, 2006; Lam, Ismail and Lee, 2020; Glyptou, 2021).

An essential component of DMO websites' success is the usability of their content. Users' satisfaction and likelihood of returning to a site are directly influenced by a website's usability, which is characterized by ease of use and effective navigation. Consequently, the effectiveness of DMO websites is governed by their usability and the quality of the content they provide (Kim and Fesenmaier, 2008; Özdemir and Gök, 2009; Law, Qi and Buhalis, 2010; Gupta and Utkarsh, 2014). The current research suggests that DMO

websites should not only provide localized and detailed information for planning trips, but should also provide users with opportunities to participate in post-travel behaviors such as sharing their experiences online (Han and Mills, 2006; Florido-Benítez, 2023; Lehto, 2023; Park and Stepchenkova, 2023; Zainal-Abidin, Scarles and Lundberg, 2023). As a strategic factor for enhancing the competitiveness and profitability of travel websites within the tourism domain, e-service quality has emerged as an important factor. Several studies have demonstrated that tourism-related enterprises can increase market share and profitability by providing high caliber e-services (Abd-El-Salam, Shawky and El-Nahas, 2013; Roger-Monzó, Martí-Sánchez and Guijarro-García, 2015; Ali and Raza, 2017; Phonthanakitithaworn *et al.*, 2021). As consumer expectations continue to evolve and the digital economy expands, travel websites must continually innovate and improve their e-service quality in order to sustain and expand their market presence.

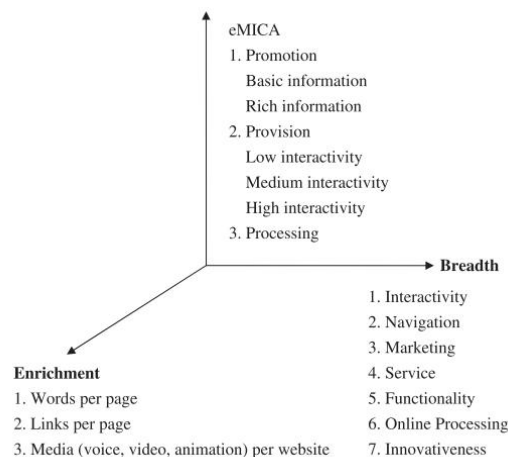
E-service quality is a strategic factor used by travel websites to increase their competitiveness and profitability. High levels of e-service quality can increase market share and profitability for a company. A significant influence on tourists' decision-making processes when buying online cannot be overstated when it comes to website design and functionality in the tourism industry. Understanding user behavior and enhancing website management requires the evaluation of these websites. A website should provide comprehensive information to its target audience, including navigation, management, functionality, Customer Relationship Management (CRM), as well as various types of information (surrounding, product, corporate). Consequently, a comprehensive approach is essential in the digital age, where consumer expectations and industry standards are constantly changing (Abd-El-Salam, Shawky and El-Nahas, 2013; Roger-Monzó, Martí-Sánchez and Guijarro-García, 2015; Ramos *et al.*, 2016; Ali and Raza, 2017; Mou, Shin and Cohen, 2017; Phonthanakitithaworn *et al.*, 2021).

Traditionally, tourist satisfaction has been measured by comparing expectations with perceptions of value for tourist products (Pizam, Neumann and Reichel, 1978). It is however important to note that the metrics and methods used to measure this satisfaction have become more sophisticated and nuanced with the advent of advanced analytics and big data. Importance-Performance Analysis (IPA) has been well documented for determining tourism satisfaction and identifying areas for improvement. As a result of integrating customer feedback from various digital platforms in recent years, this

technique has likely been enhanced by providing a more dynamic and real-time assessment of the customer experience (Yu and Weiler, 2001; Nash, Thyne and Davies, 2006; Tonge and Moore, 2007; Rašovská, Kubickova and Ryglová, 2021; Sundram and Gani, 2022). By embracing the digital era, word-of-mouth and interpersonal influence, crucial to the hospitality and tourism industries, have been transformed. As a significant platform for sharing travel experiences and expertise, travel blogs and online forums have become increasingly popular. The rise of social media influencers and travel vloggers in recent years has further emphasized the role of digital word-of-mouth in shaping tourist choices and preferences (Litvin, Goldsmith and Pan, 2008; Magnini, Crofts and Zehrer, 2011; Lei and Law, 2015; Shawon *et al.*, 2018; Pourfakhimi, Duncan and Coetzee, 2020; Nilashi *et al.*, 2022).

It remains a foundational model for understanding the phases of website development: promotion, provision, and processing. Cooper and Burgess (1999) developed the Model of Internet Commerce Adoption (MICA), presented in Figure 2. Numerous studies have examined its relevance and application. However, with the rapid evolution of e-commerce and digital technologies, the MICA model has likely been adapted or expanded to incorporate new trends like mobile commerce, AI-driven personalized experiences, and virtual reality tours in tourism (Doolin, Burgess and Cooper, 2002; Ting, Kuo and Li, 2012; Zhou and Jia, 2018; Assiri and Shamsudeen, 2019; Ramón-Cardona *et al.*, 2022). These developments underscore the dynamic nature of the tourism industry's online presence, where continuous innovation and adaptation to evolving technological trends are crucial for staying relevant and competitive.

Figure 2 Hotel Website Evaluation Model.



Source: Ting, Kuo and Li (2012:6).

The framework proposed in the Table 3 emphasizes a combination of current best practices and a forward-looking adaptability approach to website evaluation within the tourism industry, delineating a multifaceted approach to website evaluation within the tourism industry. Each of these characteristics serves a unique function in assessing digital maturity, ranging from content quality to legal compliance. User engagement is a critical component of service-oriented tourism, and content quality ensures the value delivered to users remains high, while usability and interactivity ensure user engagement. A transaction capability characteristic provides assurance of secure and efficient online commerce, which is essential for industry financial transactions. As a result, customer service and personalization contribute to the enhancement of the user experience, making it more relevant and supportive. As smartphones become increasingly prevalent in consumer internet access, multimedia and social media integration emphasize the dynamic nature of digital marketing. Continuous improvement is based on data-driven analytics and feedback, and sustainability and corporate social responsibility are included to reflect the trend towards ethical tourism. Compliance with digital law ensures the framework respects evolving laws. It will be regularly updated to incorporate emerging trends, technologies, and user behaviors, ensuring its utility for future academic and industry research remains robust and relevant (Zhou and Jia, 2018; Assiri and Shamsudeen, 2019; Ramón-Cardona *et al.*, 2022).

In the dynamic and competitive online travel industry, website usability and quality are paramount. Current research underscores the pivotal role that usability aspects, such as ease of navigation and user-friendly interfaces, play in shaping tourists' initial perceptions and their propensity to engage with a specific travel provider (Kim and Fesenmaier, 2008). Further, customers' decisions regarding the extension and likelihood of willingness to return are directly impacted by the overall effectiveness of a travel website, as determined by its usability and quality ((Law and Bai, 2007; Özdemir and Gök, 2009). To optimize market returns and customer satisfaction, tourism organizations must enhance website usability and quality as a vital strategy (Suteja, Santoso and Wang, 2019; Foris, Florescu, *et al.*, 2020).

Table 3 Framework of Proposed Model Developed by the Author's own illustration.

Characteristic	Description	Purpose	Adaptability
Content Quality	Evaluates the relevance, accuracy, and timeliness of information.	To ensure the website provides value to the user.	Criteria can evolve with changing content standards and SEO practices.
Usability	Assesses the ease of navigation, design intuitiveness, and accessibility.	To enhance user experience and engagement.	Usability benchmarks can adapt to new UX/UI design trends.
Interactivity	Measures the level of user engagement and interaction capabilities.	To promote user participation and feedback.	Can incorporate emerging interactive technologies like AR/VR.
Transaction Capability	Examines the e-commerce functions and security features.	To facilitate online bookings and purchases securely.	Can be updated with new payment methods and security protocols.
Customer Service	Assesses the availability and quality of customer support options.	To provide users with assistance and improve service quality.	Can integrate AI chatbots and other AI-driven support tools.
Personalization	Evaluates the degree of tailored user experiences.	To increase the relevance of the website to individual users.	Can accommodate advances in data analytics and AI for deeper personalization.
Multimedia Use	Looks at the use of images, videos, and virtual tours.	To enhance the attractiveness and engagement of the website.	Can evolve with new multimedia formats and faster internet capabilities.
Social Media Integration	Measures how well the website integrates with social media platforms.	To leverage social networks for marketing and engagement.	Can be updated with the rise of new social media platforms.
Mobile Compatibility	Assesses the website's performance on mobile devices.	To cater to the growing number of mobile users.	Criteria can change with new mobile technologies and usage patterns.
Analytics and Feedback	Evaluates the use of web analytics and user feedback mechanisms.	To understand user behavior and improve the website based on data.	Can incorporate new analytic tools and feedback channels.
Sustainability and CSR	Looks at how the website communicates corporate social responsibility and sustainability.	To align with the increasing importance of ethical and sustainable tourism.	Can be adapted to new sustainability standards and traveler expectations.
Legal Compliance	Assesses adherence to legal requirements like data protection and accessibility standards.	To ensure the website meets legal obligations.	Criteria can be updated with changes in laws and regulations.

Source: Own elaboration.

For the assessment of website usability and effectiveness, various methodologies have been employed in tourism research. In Law et al. (2010), there are five distinct approaches to this classification: counting, automated evaluation, numerical computation, and user judgment. As part of the counting method, website features are analyzed based on

frequency, whereas automated evaluation uses software tools to assess the technical aspects of the website. User judgment methods are derived from direct user feedback regarding website performance, while numerical computations utilize mathematical models to quantify user satisfaction. In spite of these diverse approaches, a standardized and universally accepted methodology for website (Gupta and Utkarsh, 2014; Rita, Oliveira and Farisa, 2019) remains a need for further research.

A critical determinant of the competitive arena for travel websites has emerged in addition to website usability and quality (Roger-Monzó, Martí-Sánchez and Guijarro-García, 2015). According to Abd-El-Salam et al. (2013), high levels of e-service quality are associated with an increase in market share for travel companies and a higher level of profitability. The emphasis on high-quality products and services is integral to long-term business success, with service quality playing a crucial role in fostering customer loyalty and ensuring retention (Ali and Raza, 2017; Chan, Chiu and Ho, 2022b). In order to maintain and enhance their competitive edge, travel websites and organizations must continually innovate in these areas as customer expectations and technology evolve.

The role of website evaluation as a strategic tool for decision-making in the development of enhanced features to improve website quality for tourism organizations is increasingly recognized (Ting, Kuo and Li, 2012). In order to better tailor hotel websites to user needs, an integrated methodology for assessing the development stages of hotel websites has been proposed (Ting, Kuo and Li, 2012), which incorporates cross-regional comparisons based on depth and breadth analyses. Search engine optimization and keyword effectiveness are vital for providing travelers with an online experience that facilitates a one-stop-shop model that contributes to destination tourism development (Ting, Kuo and Li, 2012; Foris *et al.*, 2020b; Do-Thi and Do, 2022).

A user's engagement is paramount while exploring potential destinations online in the current digital era. Modern web design must consider cultural nuances in layout, animation, and color choices. Visual elements, particularly imagery, play a vital role in influencing tourism demand by shaping attitudes and trends, and determining what is perceived as fashionable or interesting. The representation of a destination's image online is critical in attracting tourists, as it needs to provide an enticing preview of the travel experience, often more compelling than the actual location (Lam, Ismail and Lee, 2020; Turra, 2020; Jawabreh *et al.*, 2022). The design and management of booking websites is crucial in meeting the evolving needs of tourists. Online search engines are increasingly

relying on travelers for planning their trips instead of traditional travel agencies, which means the attributes and features of these search engines are becoming increasingly important. Developers may not be able to create booking websites that offer a satisfactory user experience and positively influence purchase intentions without a profound understanding of user preferences in search engine functionality (Foris *et al.*, 2020b; Jou and Day, 2021; Macakoğlu, Peker and Medeni, 2023).

E-service quality evaluation is intrinsically linked to customer expectations and their assessment of service experiences. The measurement of e-service quality extends beyond customer satisfaction to include performance efficiency and the range of web services a business offers online. Technology acceptance models (TAM) have evolved significantly, incorporating the diffusion of innovation (DOI) theory by Rogers (1983), which outlines key characteristics leading to technology adoption. The advantages are relative, compatibility, complexity, trialability, and observability. According to Goodhue and Thompson (1995), the task technology fit (TTF) model emphasizes the importance of aligning technology with user tasks to promote the adoption of e-services. In addition, the technology acceptance models have been expanded to include perceived usefulness and ease of use, based on the DOI and Theory of Planned Behavior (TPB) theories. Further analysis of the influence of various technology attributes on e-service utilization behavior is provided by models such as the TAM (Davis, (1989), TAM2 (Venkatesh and Davis, 2000), TAM3 (Venkatesh and Bala, 2008), UTAUT, and UTAUT2 (Chen, Chang and Chen, 2014), which illustrate the evolving understanding of e-service adoption dynamics (Phonthanakitithaworn *et al.*, 2021).

2.2.1.1. Content

The rise of user-generated content (UGC) and advances in information and communication technologies have significantly transformed how travelers access information about destinations and share their experiences (Gretzel and Yoo, 2008). Tourism ecosystems depend heavily on UGC platforms to facilitate connections between tourists, destinations, service providers, and other travelers (Boyd and Ellison, 2007; Hudson and Thal, 2013). The online reviews provided by these platforms are instrumental in assisting tourists in understanding and navigating the spectrum of tourist experiences, as well as gauging others' emotional and behavioral responses to destinations (Gross and

John, 2003; Thanh and Kirova, 2018). As a result of analyzing content from UGC platforms, hotel, restaurant, and destination practitioners can gain valuable insight into improving tourist experiences by analyzing content on these platforms.

There has been a surge in the sharing economy in recent years, but research into international tourists' experiences in food, accommodations, transportation, and local guides in diverse settings, including Istanbul, has been lacking. The sharing economy is increasingly recognized as an important means of sharing tourism experiences and distributing knowledge (Privitera and Abushena, 2019). In addition to providing insights into local lifestyles (Maitland, 2010), these platforms facilitate the understanding of local food cultures through interactions with local residents, thus contributing to a more authentic tourist experience (Mhlanga, 2020). It has been shown that the meal-sharing aspect of the sharing economy promotes cultural exchanges between locals and tourists by providing authentic, affordable culinary experiences through personal interactions (Privitera and Abushena, 2019).

As a consequence of these platforms, the urban and local tourism economies are significantly affected. As guests or customers in homes, restaurants, or educational settings, tourists can get a taste of local cultures as well as learn cooking techniques and ingredients (Zurek, 2016). Insights into tourist behaviors, emotions, preferences, and travel patterns can be gained from the online reviews they post about these experiences, which serve as a goldmine of information for service providers. Although many studies have examined consumer feedback about food experiences, most of these studies have focused on restaurant settings and social media platforms (Lei and Law, 2015; Onorati and Giardullo, 2020). From the perspective of the sharing economy, it is difficult to fully understand the full spectrum of tourist food experiences. A deeper exploration into the nature, determinants, and dimensions of these experiences within the sharing economy is crucial for service providers to refine and improve their offerings (Atsız and Cifci, 2021).

In particular, online user-generated reviews have been shown to influence business performance, particularly in the area of book and music sales and online hotel bookings. It has been shown that the number of user-generated reviews correlates significantly with improved business performance (Jin and Phua, 2016). There has been extensive research into the impact of these reviews on travel bookings in the domain of travel and tourism marketing. Consumers' hotel booking intentions can be negatively affected by ambivalent hotel reviews, particularly those containing personal identifying information. On the other

hand, positive reviews are known to enhance consumer trust and increase booking intentions (Jin and Phua, 2016; Jain, Pamula and Srivastava, 2021; Zelenka, Azubuike and Pásková, 2021). The characteristics of blog entries, such as length and frequency, vary based on the type of content and the intended message. A typical travel blog post typically consists of between 1000 and 2000 words and is published on an average of seven times per month. A blog's success depends on consistency and timely updates. Moreover, both the writing style and the content type are crucial, with users generally preferring familiar content styles to more innovative approaches (Madriz and Tejedor, 2020).

The warranting principle suggests that UGC aggregated by systems is perceived to have a lower warranting value than UGC written directly by consumers. Unlike retailer-aggregated UGC, which is automatically generated by a retailer's website, system-aggregated UGC, while authored by consumers, is specifically intended for other consumers. As the latter is under the control of the site manager or owner, it is more likely to be manipulated than UGC written by consumers directly (Jin and Phua, 2016). Consumer behavior and trust are influenced significantly by the source and presentation of UGC, which has a distinct distinction in perceived credibility.

Electronic word of mouth (eWOM), particularly in the form of online consumer reviews, has firmly established itself as a key component of modern marketing strategies, particularly within the tourism and hotel industries. As these reviews are created by fellow consumers, they are increasingly recognized as reliable sources for information recovery and purchase decisions (Jin and Phua, 2016; Nilashi *et al.*, 2022). The trustworthiness of these consumer-generated reviews stems from their authenticity, as they are perceived as unbiased and genuine reflections of customer experiences. Online customer reviews serve as informal channels of communication, where users share their insights on various aspects of a product or service. The motivations behind writing these reviews are diverse, ranging from altruistic sharing and social interaction to self-enhancement and cooperation with companies. Such reviews, particularly when positive, have been observed to significantly influence customer behavior, leading to increased awareness and favorable attitudes towards the product or service. This, in turn, can enable businesses, particularly in niche markets like rural tourism, to command higher prices and bolster sales and profitability (Melo, Hernández-Maestro and Muñoz-Gallego, 2016). Big data analysis has become an indispensable tool for understanding tourist behavior and market trends in recent years. Big data offers insights that traditional survey methods may not be able to

capture due to limited sample sizes. As a result, UGC, such as blogs, social media posts, and online travel reviews, provides the opportunity for spontaneous and detailed feedback. The feedback is both cost-effective and comprehensive, making it an invaluable resource for researchers and practitioners (Guo, Barnes and Jia, 2017; Chuang, 2020; Kauffmann *et al.*, 2020). In particular, UGC from online travel review sites like TripAdvisor constitutes a significant portion of the data being generated, providing researchers and practitioners with useful insights into tourists' preferences and needs (Fang *et al.*, 2016; Alaei, Becken and Stantic, 2017; Li *et al.*, 2018).

The impact of UGC on potential tourists' decision-making processes is well-documented. Online reviews significantly shape their perceptions and choices (Afzaal, Usman and Fong, 2019; Chen *et al.*, 2020; Zhang *et al.*, 2020; Cheung *et al.*, 2021). The effectiveness of UGC in influencing these decisions can, however, vary depending on factors such as content, source, and credibility. It is crucial for researchers and industry practitioners to recognize these factors when analyzing UGC and its effects on tourist behavior. The significance of big data and UGC analysis in understanding the tourism market is further supported by various scholar which employ big data techniques to examine tourist behaviors and market trends (Sivarajah *et al.*, 2017; Li *et al.*, 2018; Zhang *et al.*, 2020; Zelenka, Azubuiké and Pásková, 2021). Additionally, Guo *et al.* (2017) highlight the benefits of UGC for tourism research and management, underscoring its growing importance in the field.

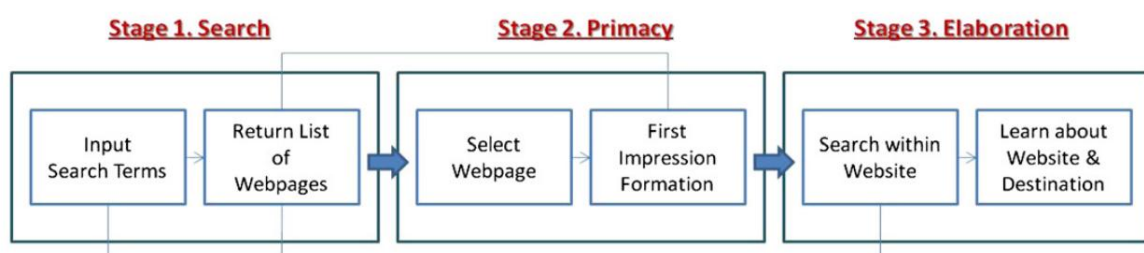
2.2.1.2. Channels

In the tourism industry, blogging has become an increasingly important source of information. The content of travel blogs is often enriched with multimedia content, which facilitates interactive engagement with the audience (Pan, MacLaurin and Crotts, 2007; Madriz and Tejedor, 2020; Choi and Lee, 2021; Li *et al.*, 2023), as well as offering unique personal experiences and opinions. By participating in this interactive process, readers can make informed travel decisions and are inspired to create and share their own travel experiences. Blog content can attract internet users, increasing web traffic; generate user interest; promote the desire to visit a destination or purchase a product; and stimulate action (Sigala, 2007; Baruah, 2017; Choi and Lee, 2021; Li *et al.*, 2023).

As blogging has evolved, self-marketing strategies have also evolved. Search Engine Marketing (SEM) strategies now include evaluating keyword effectiveness on platforms such as Google AdWords. Search Engine Optimization (SEO), in conjunction with email opt-ins and offers, remain essential. Search engine optimization emphasizes the title, meta description, and heading tags of a page, with evaluation metrics offered by tools such as Website Grader. In addition to generating, increasing, or maintaining a following, successful travel blogs utilize a variety of marketing strategies. The importance of attaining a high search engine ranking cannot be overstated. SEO is more efficient in this context than search engine marketing. As bloggers engage readers through email and newsletter subscriptions, they can offer products and services to build long-term relationships. Furthermore, advertising and partnerships provide opportunities for monetization, though it is advisable to approach these with moderation in order to avoid alienating readers (Madriz and Tejedor, 2020).

The online search process for destination information typically involves two primary strategies for travel planners: (1) using search engines such as Google to enter destination-related keywords, and (2) accessing the destination's website directly by typing the URL (Uniform Resource Locator) of the destination's website. It is especially relevant for individuals who have no prior knowledge of the destination. It can provide a framework for understanding how potential travelers seek and process information by examining the three steps involved in this online information search process, as detailed in Luna-Nevarez and Hyman (2012). The blogging landscape in tourism has evolved to accommodate these evolving digital marketing trends and consumer search behaviors, thus becoming an integral part of the tourism industry's information ecosystem.

Figure 3 Online search for travel planning information



Source: Kim and Fesenmaier (2008:4).

For tourists to search and purchase tourism services easily, it is important to provide high quality websites, search engine optimization (SEO), email marketing, social media presence, content, and mobile-friendly convenient access (Suteja, Santoso and Wang, 2019).

2.2.1.3. Users' Satisfaction

Tourism websites have evolved to be pivotal in tourism marketing, offering a platform for users to explore, compare, and purchase tourism products and services (Huang, 2020). The efficacy of these websites hinges on their quality, which significantly impacts customer satisfaction and purchase intentions. The primary determinants of website quality include service quality, system quality, information quality, and website design. Based on a comprehensive survey conducted in Asia, Europe, and North America, online travel website purchase intentions were assessed in light of e-service quality attributes, including web design, interface functionality, and support systems (Phonthanukitithaworn *et al.*, 2021). To build robust customer relationships in the tourism industry, it is important to understand customer online purchase decisions and foster loyalty. In order to understand consumers' online purchase intentions for travel products such as lodging, tickets, car rentals, tours, and cruises, a variety of theories have been applied, including theories of planned behavior, consumer trust, and quality measurement of travel website design. Critical influencing factors in this context include trust, satisfaction, and attitude (Wen, 2012; Amaro and Duarte, 2013; Talwar *et al.*, 2020; Le, Carrel and Shah, 2022).

The consumer decision-making model in tourism follows five stages: need recognition, information search, evaluation of alternatives, the final purchase decision, and post-purchase behavior. The decision-making process associated with tourism can be complicated and involve multiple choices (Gupta and Utkarsh, 2014). In today's digital era, the online environment serves as a key source of information for tourists, influencing the popularity of offline destinations. In previous research, websites with distinct personality types have been found to positively impact web browsing and impulse purchasing behavior online. In order to convert casual visitors into loyal customers, tourism providers should craft their online presence in a way that engages potential travelers effectively (Foris, *et al.*, 2020b). A website's functionality is a significant

predictor of customer satisfaction and repurchase intentions. Thus, the interaction between travel website design, travelers' attitudes, and customer satisfaction is critical to influencing travelers' purchase intentions. In order to evaluate the effectiveness of a booking website, the design and functionality of the website are very important (Foris, *et al.*, 2020b), underscoring the importance of continuous adaptation and improvement in the design and functionality of the website to meet the changing expectations of consumers.

The Internet has become a vital tool for marketing tourism organizations in the area of online commercial transactions. The digital landscape is saturated with thousands of websites providing a wide range of information and services. These tourism websites often serve as the initial point of contact between users and tourism organizations. They offer an array of functionalities, from providing travel information to personalizing travel services, navigating through various textual and graphic elements, and creating a vital first impression of the tourism entities. A successful implementation of these websites can lead to an increase in online sales and customer engagement, as well as an increase in the relationship between tourism organizations and their users (Huang, 2020).

For tourism service providers, customer feedback has emerged as an important component, enabling them to identify and prioritize a variety of quality factors that affect diverse groups of customers. As customers' expectations evolve, this feedback is instrumental in refining or adapting services. In recent years, recommender systems (RS) have become increasingly sophisticated, offering personalized filtering and ranking of options based on customer ratings and preferences. There is a widespread use of these tools in e-commerce sites to assist customers in navigating extensive product selections to find items that are relevant to their interests and needs (Jannach *et al.*, 2015).

The importance of interpersonal influence and word-of-mouth (WOM) communication in the hospitality and tourism industry has increased significantly. Travel blogs have become valuable channels for exchange of information and market analysis, providing valuable insights to industry players (Litvin, Goldsmith and Pan, 2008; Wang, Tran and Tran, 2017). In order to refine their offerings, hospitality and tourism businesses are encouraged to engage with popular bloggers. Such engagement not only enhances customer delight (Tung and Ritchie, 2011) but also fosters positive WOM among target demographics, which is essential in today's highly connected and opinion-driven market (Munar and Jacobsen, 2014). In this evolving digital landscape, embracing these digital channels and

customer feedback mechanisms is key for tourism organizations aiming to maintain relevance and competitiveness (Pourfakhimi et al. , 2020; Bu, Parkinson and Thaichon, 2021; Zelenka, Azubuike and Pásková, 2021).

2.2.1.4. Tools

As a result of the contemporary, data-driven landscape, the importance of data and evidence has increased significantly (Manyika *et al.*, 2011). The evolution of big data and open data has enhanced access to information and has resulted in the development of new methods for gathering and analyzing data (Kitchin, 2014; Kauffmann *et al.*, 2020; Mazanec, 2020). Tourism, in particular, is at the forefront of utilizing these developments, utilizing innovative data sources and tools such as mobile positioning data, web scraping, public API data sharing, and collaborative economy data (Sigurdsson *et al.*, 2013; Kalvet *et al.*, 2020; Atsız and Cifci, 2021). The advent of more sophisticated data analysis techniques and the growing importance of big data have revolutionized decision-making processes, not just in general business practices but specifically in the tourism industry (Suteja *et al.*, 2019; Ureña-Españat *et al.*, 2023). In response to rapidly changing market dynamics and evolving consumer preferences, the sector is increasingly employing a variety of data-driven tools and methodologies (Li *et al.*, 2018; Lee and Cho, 2020), which significantly improves its ability to adapt. As the tourism industry moves towards a more data-centric approach, it is gaining deeper insights into customer behavior, market trends, and operational efficiency, which enables more informed and strategic decision-making (Niininen, Buhalis and March, 2007; Mikulić, Kožić and Krešić, 2015; Mezghani and Mezghani, 2022; Partovi, Zarei and Rahmani, 2023).

There are nine success key factors for e-tourism website (YA Park, U Gretzel, 2007) as presented in the Table 4.

Also considering the Adapted Model of Functionality Key of the eMICA, as presented in Table 5, there are different stages, with several layer in each and different funcionalites.

Table 4 Website Success Factor.

Key factors	Description
Ease of Use	Usability, accessibility, navigability, logical structure
Responsiveness	Accessibility of service representatives, e-mail service, reply to online reservations, contact information, availability of help function such as toll-free telephone, intuitive online help
Fulfillment	Order process, accuracy of service promises, billing accuracy, online booking process and confirmation, on-time delivery
Security/Privacy	Protecting information during transmission and subsequent storage, security for online purchases/reservations, Privacy/confidentiality statement
Personalization	Personalized or individualized attention, customized offerings and information
Visual appearance	Attract attention, convey image, aesthetics
Information quality	More varieties, broader scope, currency, conciseness, accuracy of information, authority, reliability, uniqueness of information
Trust	Brand recognition, consistency, intentions, credibility
Interactivity	Interactive features such as virtual tours, Interactive communications (FAQs, guest books, chat)

Source: Adapted from Park and Gretzel (2007).

Table 5 The Extended Model of Internet Commerce Adoptions (eMICA).

eMICA stages	eMICA Stage Layers	Examples of Functionality
Stage 1 – Promotion	Layer 1 – Basic information	Company details such as name and address
	Layer 2 – Rich information	Online contact details, company activities
Stage 2 – Provision	Layer 1 – Low interactivity	Basic product catalogue, online inquiry support
	Layer 2 – Medium interactivity	Customer support, value added features
	Layer 3 – High interactivity	Discussion forum, newsletters, updates, Web 2.0 features such sharing and bookmarking
Stage 3 – Processing		Facilitate secure online transactions

Source: Adapted from Sigurdsson et al. (2013), Suteja, Santoso and Wang (2019).

Based on the Adapted Model of Functionalities Key of the eMICA, in the present dissertation was considered the model presented below, which is almost similar to the original version, but some elements are omitted and changed:

Promotion stage:

1. Contact detail
2. Images
3. Description of the travel agency

Provision stage:

1. Systematic links to further information

2. Product catalogs (tour routes, accommodation, dining, shopping)
3. Multiple value-added features (key facts, maps, location, news, photo gallery, promotion)
4. Interactive value-added features (currency converters, interactive maps, downloadable materials, special offers, member's privileges, guest books)
5. Online customer support (frequently asked questions / FAQs, site map, site- search engine)
6. Searchable databases for tour routes under different inquiry condition
7. Online bookings

Processing stage:

1. Secure online payment
2. Services after payment

Advanced value-added features (Suteja *et al.*, 2019) (Order form inquiry multi-language support, member lands, multimedia, chat rooms and discussion forums).

2.3. ISO Model

The previous research from Journal of Internet and e-Business Studies used the fundamental objective of the ISO/IEC 9126 standard presented in Figure 4 is to address some of the well-known human biases that can adversely affect the delivery and perception of a software development project.

Figure 4 - Model ISO 9126.

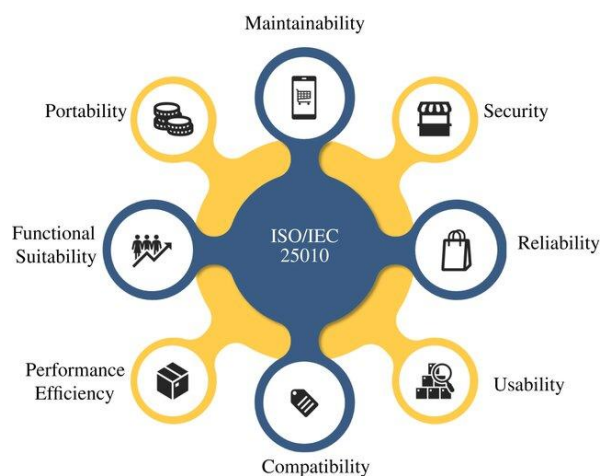


Source: Suteja, Santoso and Wang (2019).

According to the International Organization for Standardization (ISO) website, the ISO/IEC 25010 model has revised the product quality model from six characteristics to eight. The ISO 25010 model presented in Figure 5 defines product quality with the following eight characteristics:

1. Functional Suitability - The extent to which a product or system meets the consumer's needs in specific conditions.
2. Performance Efficiency - A measure of the output achieved relative to the resources used
3. Compatibility - The capability to share the same operating system, hardware, or exchange information with other products, systems, or components.
4. Usability - The degree to which specified users can achieve specified goals through the use of a product or system.
5. Reliability - The ability of a system, product, or component to perform specified functions under specified conditions.
6. Security - The extent to which a product or system protects information and data appropriate to the type and level of access.
7. Maintainability - The degree to which a product or system can be improved, corrected, modified, or adapted to changes in the environment.
8. Portability - The ability to efficiently and effectively transfer software, hardware, or other operational or usage environments.

Figure 5 - Model ISO 25010.



Source: Yenduri and Gadekallu (2023:2).

Suteja et al. (2019) examined key performance indicators of websites to provide a comprehensive understanding of reader behavior concerning blogs. Using SimilarWeb.com and Alexa.com, the following metrics were analyzed:

- Total visits
- Average visit duration
- Pages per visit
- Bounce rate
- Main traffic source
- Social media generating the most traffic

The Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) aims to choose a positive ideal solution rather than a negative one. Despite its relatively simple calculation procedure, TOPSIS has been criticized for its insufficiency in handling uncertain problems. However, the subjective evaluation process can be addressed by fuzzy logic techniques such as fuzzy Analytic Hierarchy Process (AHP). In this study, an integrated procedure combining fuzzy AHP with fuzzy TOPSIS techniques was developed, as fuzzy AHP is widely used in practical situations. Initially, fuzzy AHP was used to determine criteria weights, and then fuzzy TOPSIS was employed to rank alternatives (Benítez, Martín and Román, 2007; Ilbahar and Cebi, 2017; Baki, 2020).

While SERVQUAL is not frequently utilized as a direct method for measuring service quality, many of the commonly asked questions are closely linked to one or more of the five dimensions of the SERVQUAL scale (Carrasco *et al.*, 2017). In the context of website success, usability plays a pivotal role in visitor satisfaction and the likelihood of their return. Drawing from the Technology Acceptance Model (TAM), the factors of "Ease of Use" and "Usability" are fundamental determinants of future technology adoption, both of which are closely associated with design characteristics. Notably, while covariance-based structural equation modeling (SEM) typically requires a minimum of 200 samples, partial least squares (PLS) has emerged as a more suitable approach for exploring theory structures and identifying dominant constructs (Baktash, Nair and Subramonian, 2016; Nuryyev *et al.*, 2020; Pillai and Sivathanu, 2020).

Contemporary recommendation systems are designed to predict the relevance of items that users have not yet encountered, leveraging explicit ratings from a broad user community. This technique, known as "collaborative filtering," relies on the explicit ratings provided by users to anticipate the relevance of items (Schafer *et al.*, 2007; Jannach and Jugovac, 2019). In the modern landscape of travel and tourism platforms, detailed ratings provide a more comprehensive understanding of user preferences compared to a single overall rating. Consequently, specialized algorithms have been proposed to generate recommendations that take into account these additional data points. These advanced algorithms enhance the personalization and effectiveness of recommendations in the travel and tourism sector, ultimately improving the user experience (Jannach *et al.*, 2015; Jannach and Jugovac, 2019; Jeong and Shin, 2020; Shin, Kim and Jeong, 2023).

3. Methodology

Comparatively, tourism-oriented websites are distinguished from their e-commerce counterparts by their distinct organizational objectives, user engagement strategies, and dynamics of interaction with the system. It is primarily the fundamental differences in their core objectives that contribute to this divergence. In contrast to e-commerce platforms which are designed to streamline and optimize the shopping experience, tourism websites serve to disseminate information and services related to travel and recreation (Li and Xie, 2012). The delineation of focus is imperative to the design of these websites, as it influences the structure and functionality of the pages. A notable distinction emerges in the context of user engagement as a result of the pattern of website access. Tourism websites frequently cater to groups, including families and friends, as opposed to traditional e-commerce platforms that cater to individuals. In addition to this observation, one must also consider the evolving nature of travel behaviors, such as the increasing popularity of solo travel, which may necessitate a more nuanced approach to user engagement strategies (Huang, 2020).

A crucial component of both e-commerce and tourism websites today is social media integration, which, however, assumes a more complex and multifaceted role within tourism websites, given their inherent social orientation. Through the implementation of live social feeds, user-generated content, and extensive cross-platform interaction, technology advancements are likely to enhance this integration, enhancing the user experience and fostering a more dynamic social ecosystem within these websites (Sigala, 2013; Ilbahar and Cebi, 2017; Mohd and Zaaba, 2019; Purnomo, 2023). Furthermore, tourism websites play a role that goes beyond simply disseminating information. These platforms serve a dual purpose: providing reliable and comprehensive information to tourists, as well as acting as a promotional tool, influencing users' decision-making processes (Isti'anah, 2020). The adoption of technologies such as artificial intelligence for personalized recommendations and the use of virtual and augmented reality for immersive destination previews exemplifies the progressive evolution of these platforms. It is therefore essential for businesses within the tourism sector to understand the unique characteristics and evolving dynamics of tourism websites. By acknowledging and

adapting to these changes, these entities can more effectively cater to the diverse needs and preferences of their target demographic, thereby enhancing the overall user experience and effectiveness of their digital presence in a rapidly evolving digital landscape (Yung and Khoo-Lattimore, 2019; Pillai and Sivathanu, 2020; Ozdemir, 2021; Chan *et al.*, 2022a; Fan, Jiang and Deng, 2022).

3.1 Settings

The Algarve region, situated in southern Portugal, continues to captivate tourists with its stunning beaches, historic towns, and a climate that welcomes visitors year-round. This European holiday gem has likely evolved over time, balancing its traditional charm with modern advancements. The tourism sector, crucial to the region's economy, has embraced sustainable practices and adapted to changing global trends, particularly in digital technology and online marketing. These changes have likely enhanced the region's infrastructure, offering improved transportation, diverse accommodation options, and a broader range of activities. Additionally, in response to challenges such as the COVID-19 pandemic, the Algarve has adapted by implementing stringent health and safety protocols, ensuring the safety and comfort of both tourists and local residents. This blend of natural beauty, cultural heritage, and a forward-looking approach to tourism keeps the Algarve as a prominent destination in the global tourism industry.

3.2 Website Instrument

The decision to evaluate the VisitAlgarve website (www.visitalgarve.pt/), the official tourism portal for the Algarve region, is based upon a number of important considerations. The website plays a crucial role in shaping initial impressions and decisions among tourists seeking information about the Algarve as the primary online gateway. Its content, layout, and functionality are instrumental in providing a comprehensive and user-friendly experience, essential for attracting and retaining potential visitors.

Moreover, the website serves as a digital embodiment of the Algarve's tourism brand. It reflects the region's identity, values, and unique selling points through its visual design, narrative, and the type of content displayed. This makes it a pivotal tool in the region's marketing and branding strategies, influencing how the Algarve is perceived on the global stage. Lastly, the website's analysis provides an opportunity to assess how effectively the Algarve reaches out to prospective tourists while simultaneously enticing them with its offering, allowing for the assessment of the balance between informative content and promotional material. In order to ensure that the website serves both as a resource center and as an effective tool in promoting tourism, this balance is crucial. An evaluation of the "VisitAlgarve" website provides a comprehensive understanding of the Algarve's approach to digital tourism, its branding and marketing effectiveness, and its alignment with the evolving expectations and behaviors of modern travelers.

3.3 Data Collection

In this study, data collection was carried out using Ahrefs tool (<https://ahrefs/>) and TravelBI (<https://travelbi.turismodeportugal.pt/>), each offering unique insights essential for a comprehensive analysis of the "VisitAlgarve" website. The Ahrefs tool was employed to investigate the technical SEO aspects of the website. The report provides detailed information about the website's backlink profile, which is crucial for understanding the website's authority and reputation on the Internet. In addition, Ahrefs' ability to track organic search performance provided insights into the effectiveness of the site's SEO strategies, revealing how the website ranks for key tourism-related keywords and its visibility in search engine results.

Travel BI, as a specialized tool for Portuguese tourism, offers invaluable insights specific to the context of the Algarve region. As a tool dedicated to the Portuguese tourism industry, Travel BI provides data and analytics related to user behavior and engagement in this particular geographical and sectoral setting. It includes metrics such as visitor demographics, patterns of interaction with the site, and conversion rates. It is crucial for a tourism portal like "VisitAlgarve" to collect such targeted information to understand the website's performance in attracting and engaging its primary audience.

Ahrefs and TravelBI combined to provide a comprehensive analysis of the website's performance. TravelBI provided insights into localized user engagement patterns and behavior patterns within the Portuguese tourism context, whereas Ahrefs provided insights into global SEO performance and online visibility. Using this dual approach enabled us to obtain a holistic view of the website from the standpoint of search engine rankings, international reach and effectiveness in engaging a specific audience within the context of Portuguese tourism.

3.4 Data Analysis

The data analysis of the "VisitAlgarve" website was a multi-faceted process, designed to comprehensively assess its effectiveness as a digital tourism portal. This analysis was segmented into distinct but interrelated sections, each focusing on specific aspects of the website's performance and user interaction.

1. **DMO Organic Traffic vs. Destination Overnight Stays:** This segment aimed to correlate the website's organic traffic with actual tourist stays in the Algarve region. By examining this relationship, insights were gleaned into how effectively the website's traffic converts into real-world tourism activities. This involved analyzing data on website visits and comparing it with statistics on overnight stays, thus providing a clear picture of the website's impact on tourism in the Algarve.
2. **Analysis of Organic Keywords for VisitAlgarve:** In this section, the focus was on understanding the search queries that lead users to the website. By analyzing the organic keywords for which "VisitAlgarve" ranks, insights were obtained into the website's search engine visibility and the relevance of its content to potential visitors. This analysis was crucial in identifying the strengths and weaknesses in the website's content strategy and SEO efforts.
3. **Search Engine Optimization (SEO) Analysis:** This analysis delved deeper into the technical and on-page SEO aspects of the website. It examined factors such as the website's backlink profile, meta tags, keyword optimization, and content relevance. The goal was to assess the website's overall SEO performance,

determining its effectiveness in ranking high on search engine result pages and attracting organic traffic.

4. **User Interface (UI) Analysis:** The user interface analysis focused on the design elements of the website, including layout, navigation, and visual aesthetics. This assessment aimed to determine how intuitive and user-friendly the website is, which is crucial in ensuring a positive first impression and ease of use for visitors.
5. **User Experience (UX) Analysis:** Complementing the UI analysis, this section evaluated the overall user experience on the website. It involved assessing key performance indicators such as bounce rate, average session duration, and page views. These metrics provided insights into how users interact with the website, the duration of their stay, and their engagement level with the content. The UX analysis was crucial in identifying areas where the user interaction could be enhanced to improve overall satisfaction and engagement.

Throughout the analysis, there was a strong emphasis on identifying recent trends and patterns to ensure that the findings were relevant and applicable to the current digital landscape. This approach was essential in providing actionable insights and recommendations that are aligned with the latest developments in digital tourism marketing and user behavior. The comprehensive nature of the analysis, covering both technical SEO aspects and user-centric metrics, ensured a well-rounded evaluation of the website's performance and its effectiveness as a digital gateway to the Algarve region.

4. Results

4.1 DMO Organic Traffic VS. Destination Overnight Stays

This study explores the relationship between the number of overnight stays and online traffic on the Visit Algarve website, segmented by various nationalities from 2017 to 2021. Information was derived from the Travel BI portal, as presented in Table 6 and Table 7.

Table 6: Average Organic Traffic

Country	Portugal	UK	Germany	France	Spain	Netherlands
Metric	Avg. organic traffic	Avg. organic traffic	Avg. organic traffic	Avg. organic traffic	Avg. organic traffic	Avg. organic traffic
2017	100,238	317	364	1,633	1,849	2
2018	106,137	528	360	1,253	1,460	17
2019	247,010	1,238	2,310	5,199	8,258	392
2020	295,872	1,624	4,530	7,713	15,826	393
2021	498,638	2,397	6,560	9,509	27,054	496

Source: Travel BI (2022).

Table 7: Overnight Stays

Country	Portugal	UK	Germany	France	Spain	Netherlands
Metric	Overnight Stays	Overnight Stays	Overnight Stays	Overnight Stays	Overnight Stays	Overnight Stays
2017	5,252,750	6,249,136	2,121,846	1,048,912	961,722	1,536,882
2018	3,813,998	5,795,119	2,042,042	1,147,029	1,038,845	1,366,634
2019	4,985,984	5,916,074	1,870,377	1,178,976	1,131,271	1,219,837
2020	4,797,528	1,018,490	674,184	414,722	467,594	532,593
2021	4,332,057	1,562,957	695,257	632,612	587,488	522,152

Source: Travel BI (2022).

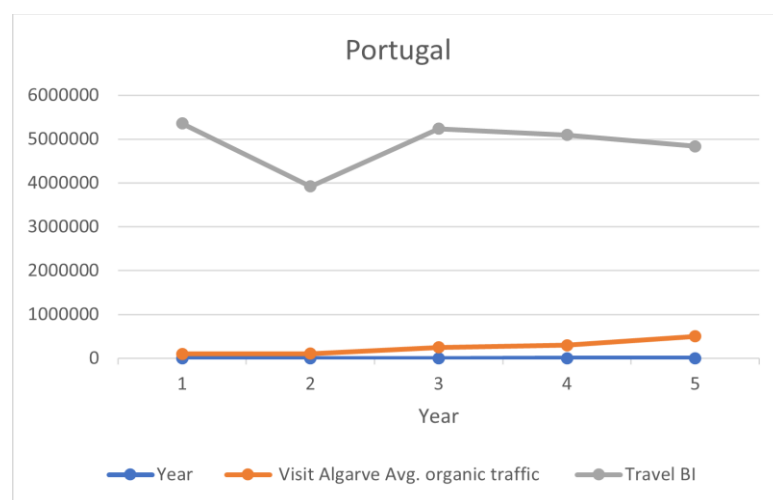
The examination of the "VisitAlgarve" website's data, which focuses primarily on the correlation between online traffic and overnight stays segmented by nationality from 2017 to 2021, provides comprehensive insight. Based on the data from TravelBI, this analysis explores the interaction between digital engagement and physical tourism activities in a detailed manner, which will be analyzed by nationality.

1. Portuguese Tourists:

The Pearson correlation coefficient between website visits among Portuguese tourists and the years is approximately 0.0041, indicating a very weak positive correlation (p-value \approx 0.991). This suggests that while there was an increase in website visits,

particularly peaking in 2021, the overall trend does not show a statistically significant positive correlation. Despite this, the increase in digital engagement with the Visit Algarve website has been shown to be an important factor in driving tourism in the region. These findings confirm the significance of website usability in influencing tourism decisions and behaviors among tourists. In spite of occasional dips in overnight stays, online activity has continued to grow, underscoring the increasing importance of digital platforms in the tourism industry, as presented in Figure 6.

Figure 6: Average organic traffic (website visits) among Portuguese tourists from 2017 to 2021.

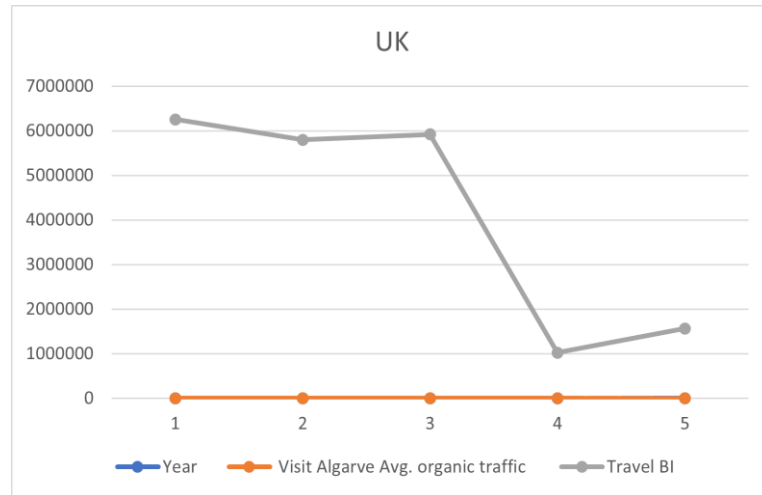


Source: Own elaboration.

2.UK Visitors:

The analysis shows a negative correlation ($r \approx -0.381$, $p \approx 0.277$) between website visits and overnight stays for UK visitors. Despite a noticeable decrease in overnight stays, possibly due to the COVID-19 pandemic, there was an increase in website traffic from this demographic. This divergence in 2021 may indicate increased interest in the region, with potential tourists actively seeking information about it, constrained by external factors such as travel restrictions and health concerns. This complexity highlights the nuanced relationship between online engagement and physical travel, as presented in Figure 7.

Figure 7: Average organic traffic (website visits) among British tourists from 2017 to 2021.

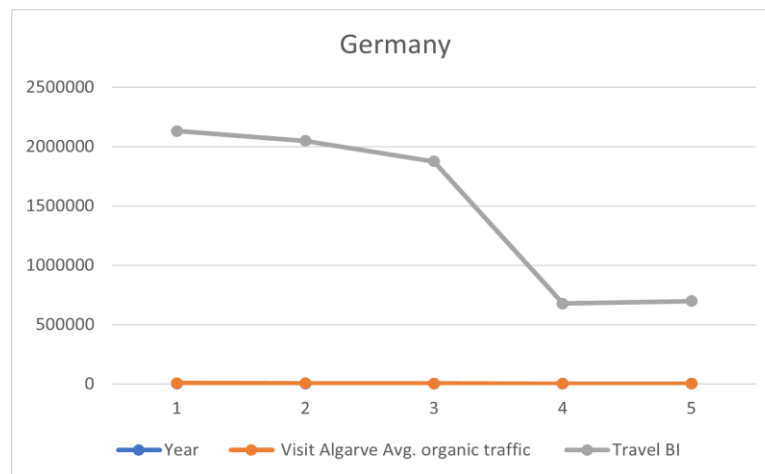


Source: Own elaboration.

3. German Visitors:

Similarly, German visitors show a negative correlation ($r \approx -0.341$, $p \approx 0.335$) between website visits and overnight stays. While the number of overnight stays decreased, the frequency of website visits increased, suggesting that the website is primarily utilized for planning future travels. This pattern indicates that, even though immediate travel may not have materialized, German tourists' intentions and interest in the Algarve region remain strong (Figure 8).

Figure 8: Average organic traffic (website visits) among German tourists from 2017 to 2021.

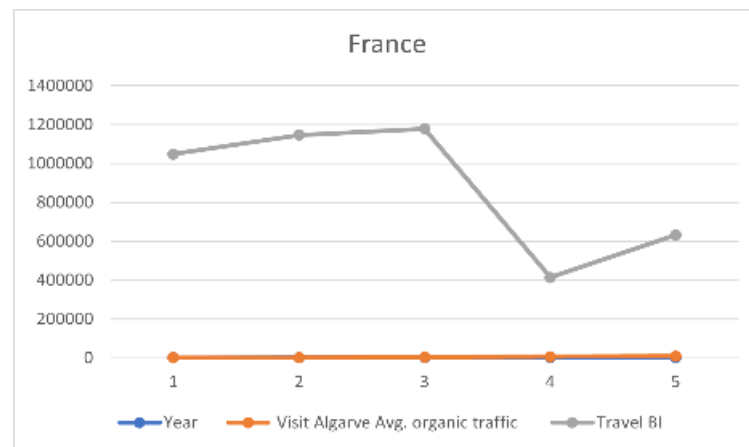


Source: Own elaboration.

4.French Tourists:

French tourists exhibit a weak negative correlation ($r \approx -0.223$, $p \approx 0.536$) between website visits and overnight stays. This trend, characterized by a decrease in physical overnight stays but an increase in website visits, suggests that the website functions as a planning tool for future travels. It indicates sustained interest in the region, even if immediate travel plans are not realized, based on the increased digital engagement (Figure 9).

Figure 9: Average organic traffic (website visits) among French tourists from 2017 to 2021.

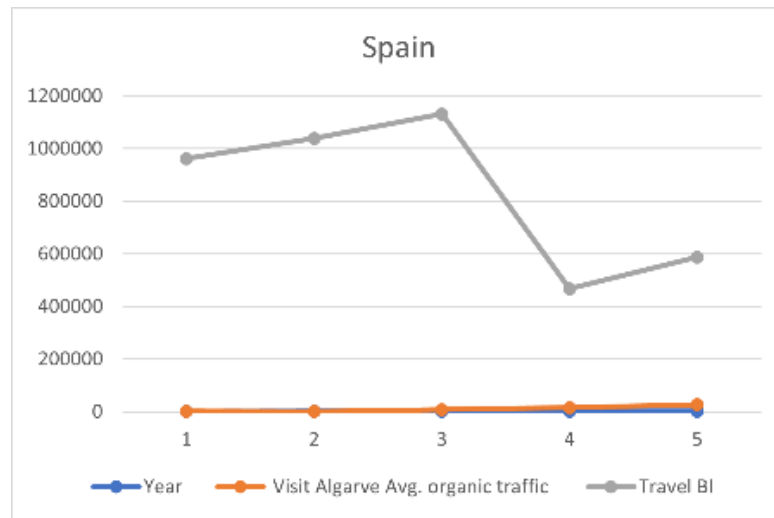


Source: Own elaboration.

5.Spanish Tourists:

In the case of Spanish tourists, the correlation between website visits and overnight stays is also weakly negative ($r \approx -0.196$, $p \approx 0.587$). Despite this, the trend of increasing website visits highlights the influential role played by the website in shaping Spanish tourists' travel decisions. This correlation may reflect effective digital engagement strategies and the website's crucial role in translating online interest into actual tourism visits (Figure 10).

Figure 10: Average organic traffic (website visits) among Spanish tourists from 2017 to 2021.

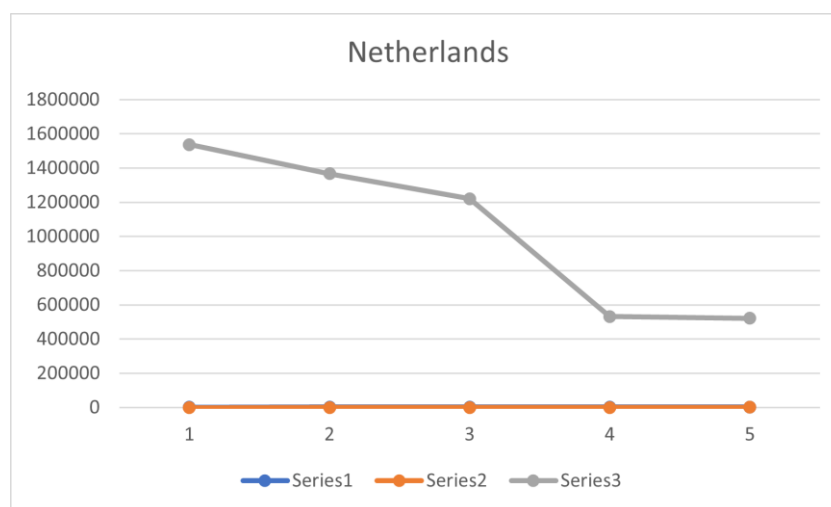


Source: Own elaboration.

6. Dutch Tourists:

Dutch tourists show a weak negative correlation ($r \approx -0.338$, $p \approx 0.340$) between website visits and overnight stays. The potential use of alternative information sources for travel planning, differing from trends observed for other nationalities, warrants further investigation to understand the underlying factors, as presented in Figure 11.

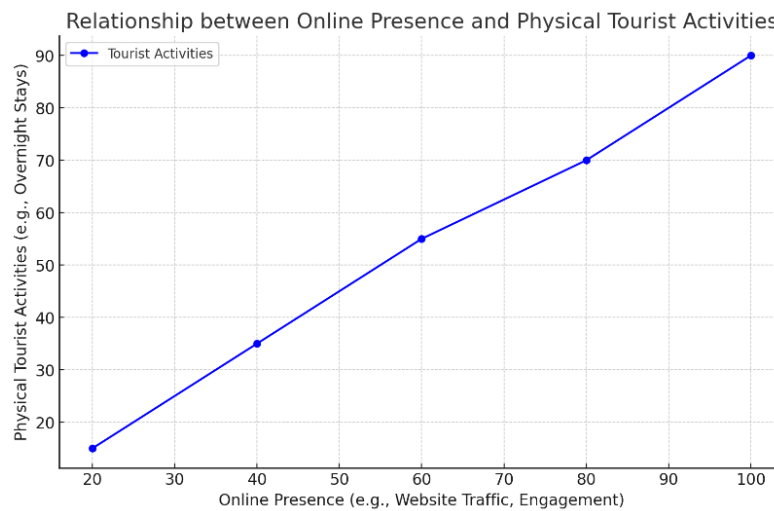
Figure 11: Average organic traffic (website visits) among Dutch tourists from 2017 to 2021.



Source: Own elaboration.

As a result of these findings, the "VisitAlgarve" website is becoming increasingly important to tourism activities in the region as an indispensable information source. According to Buhalis and Amaranggana (2015), Destination Management Organizations should continuously strive to improve the design, quality, and responsiveness of their websites. This comparative analysis of Ahrefs and TravelBI data indicates a nuanced relationship between online presence and physical tourist activities (Figure 12). Despite the effectiveness of the website in attracting visitors, there may be gaps in converting these visits into actual stays, suggesting that high website traffic does not necessarily correlate directly with high night stay. This highlights the importance of an integrated approach to digital marketing, encompassing effective SEO, user experience optimization, and multichannel marketing strategies to not only attract but also convert online interest into tangible tourism activities. Here is Figure 12, illustrating the relationship between online presence and physical tourist activities. This hypothetical representation shows how increased online engagement (e.g., website traffic, engagement) can correlate with increased physical tourist activities (e.g., overnight stays).

Figure 12: Relationship between online presence and physical tourist activities.



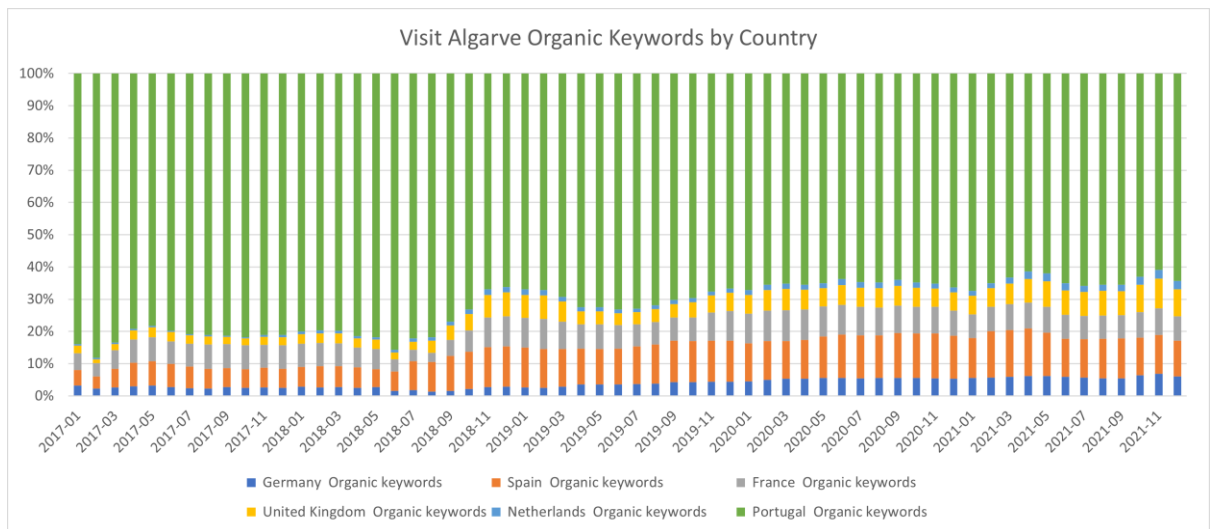
Source: Own elaboration.

4.2 Analysis of Organic Keywords for VisitAlgarve

In the contemporary digital milieu, Destination Management Organizations (DMOs) increasingly leverage online platforms to promote destinations and engage with potential tourists. Foremost among these digital tools are websites, serving as pivotal conduits for information dissemination and interaction. This section specifically delves into the analysis of organic keywords for the VisitAlgarve website.

In Figure 13 related to organic keywords, the search terms naturally attracting users to a website, stand as critical indicators of a site's Search Engine Optimization (SEO) performance. This performance is instrumental in enhancing a website's visibility and accessibility, thereby influencing potential tourists' engagement. The data, procured from Ahrefs, delineates the trajectory of organic keywords associated with the VisitAlgarve website across various countries, namely Portugal, the UK, Germany, France, Spain, and the Netherlands, over the period from January 2017 to December 2021.

Figure 13: Distribution of Visit Algarve Organic Keywords by Country (2017-2021).



Source: Own elaboration.

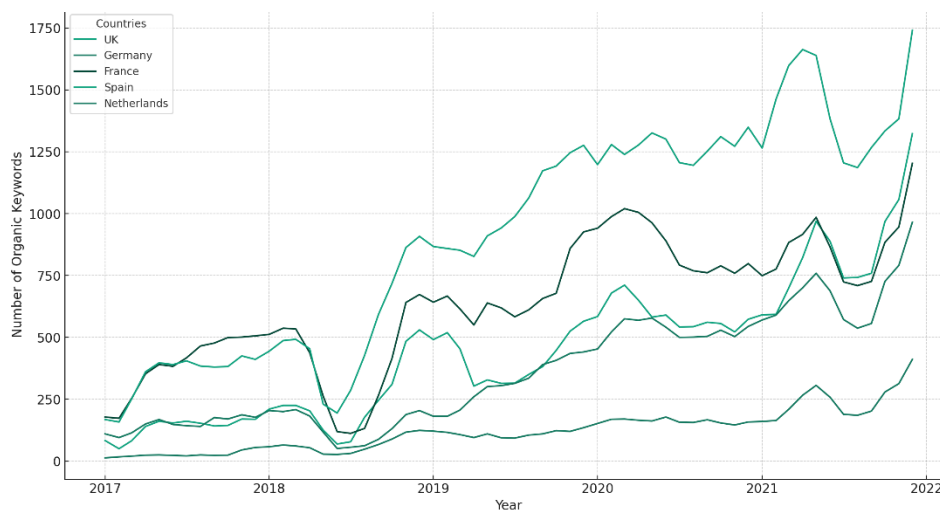
A preliminary examination of the data manifests a general upward trend in the number of organic keywords across all countries. This progression intimates a gradual enhancement in the VisitAlgarve website's SEO performance, presumably amplifying its visibility to users globally. For instance, the number of organic keywords in Portugal witnessed a

substantial escalation from 2,889 in January 2017 to 10,146 by December 2021. This significant increment is indicative of the website's enhanced optimization for search engines, which likely contributed to increased visibility and consequent traffic from Portuguese users.

However, it is imperative to note that the growth in organic keywords is not uniformly distributed across all countries, as presented in the Figure 14. This variability may be attributed to several factors, including linguistic differences, disparate search habits, competitive dynamics with other websites, and the region-specific effectiveness of the website's SEO strategies. This discrepancy necessitates a more granular exploration into the particular keywords that have catalyzed this growth, and their alignment with the content and offerings of the VisitAlgarve website. Such an investigation would yield valuable insights into the website's strengths and potential areas for improvement in attracting and engaging potential tourists.

This analysis not only underscores the importance of strategic SEO in enhancing the digital footprint of tourism websites but also highlights the need for a nuanced understanding of regional differences and preferences. The findings suggest that a one-size-fits-all approach to SEO may not be sufficient; instead, a more tailored strategy, cognizant of regional specificities, is essential for optimizing engagement and visibility across diverse tourist demographics.

Figure 14: Trend in Organic Keywords for VisitAlgarve Website (2017-2021)



Source: Own elaboration.

The visual analysis above illustrates the trend in organic keywords for the VisitAlgarve website from 2017 to 2021, presented in the Figures 6-11 and Table 8, segmented by various countries: Portugal, the UK, Germany, France, Spain, and the Netherlands. Each line represents the number of organic keywords associated with the website from a specific country, providing a clear depiction of the growth or changes over time.

Key observations from the graph include:

1. **Portugal:** Shows a significant upward trajectory, indicating a strong and consistent increase in organic keywords, suggesting effective SEO optimization and increased visibility in the Portuguese market.
2. **UK and Germany:** Both countries exhibit a general upward trend, although the growth is less pronounced compared to Portugal. This might reflect growing interest and visibility in these markets.
3. **France and Spain:** Display notable increases, especially in later years, pointing towards enhanced SEO performance and rising visibility in these regions.
4. **Netherlands:** Shows the least growth in organic keywords, indicating a relatively lower SEO impact or different user search behaviors in this market.

This visual analysis supports a comprehensive understanding of the VisitAlgarve website's SEO performance across different national markets and can guide targeted strategies for further enhancement of its digital presence.

Table 8: Monthly Organic Keywords Distribution for Visit Algarve by Country (January 2017 - December 2021)

<i>Country Metric</i>	Portugal Organic keywords	UK Organic keywords	Germany Organic keywords	France Organic keywords	Spain Organic keywords	Netherlands Organic keywords
2017-01	2889	83	110	178	168	13
2017-02	3688	50	95	173	158	17
2017-03	3622	82	114	253	251	20
2017-04	3920	140	150	353	361	24
2017-05	4117	161	168	390	397	25
2017-06	4328	154	148	383	390	23
2017-07	4825	161	143	417	405	21
2017-08	5018	153	140	465	384	25
2017-09	5209	142	176	477	380	23
2017-10	5472	144	170	499	382	24
2017-11	5674	170	187	501	425	45

<i>Country Metric</i>	Portugal Organic keywords	UK Organic keywords	Germany Organic keywords	France Organic keywords	Spain Organic keywords	Netherlands Organic keywords
2017-12	5636	169	177	506	411	55
2018-01	5730	210	204	512	444	58
2018-02	5936	225	200	537	487	65
2018-03	6012	225	208	534	492	61
2018-04	5823	203	182	438	454	54
2018-05	3422	125	117	262	230	28
2018-06	2743	69	51	119	194	27
2018-07	2597	78	56	112	286	31
2018-08	3812	177	62	132	427	48
2018-09	4198	246	88	266	593	67
2018-10	4536	310	131	415	718	89
2018-11	4649	484	188	641	863	117
2018-12	4769	530	204	673	908	124
2019-01	4656	491	181	642	867	121
2019-02	4800	519	181	667	859	116
2019-03	5028	454	206	615	852	107
2019-04	5343	303	260	550	827	95
2019-05	6024	328	301	639	910	110
2019-06	6215	314	305	619	942	94
2019-07	6166	315	314	583	988	93
2019-08	6303	350	335	611	1063	105
2019-09	6408	382	390	657	1173	110
2019-10	6526	447	407	678	1192	123
2019-11	6642	525	435	859	1246	120
2019-12	6677	565	441	926	1276	135
2020-01	6808	584	453	941	1198	152
2020-02	6909	679	522	988	1279	169
2020-03	6951	711	575	1020	1239	170
2020-04	6960	650	569	1005	1277	165
2020-05	6703	582	578	963	1326	162
2020-06	6158	590	541	890	1301	178
2020-07	5849	542	500	792	1206	157
2020-08	5837	543	501	769	1195	156
2020-09	5758	561	504	761	1252	167
2020-10	6151	556	529	789	1311	154
2020-11	5974	522	503	759	1272	146
2020-12	6733	573	544	798	1349	158
2021-01	6881	591	570	749	1265	160
2021-02	6653	593	590	776	1463	164
2021-03	6945	699	648	883	1598	209
2021-04	6951	822	700	916	1663	266
2021-05	7590	969	759	985	1639	306
2021-06	7581	888	688	865	1383	258
2021-07	6627	740	572	724	1205	189
2021-08	6378	742	537	709	1186	185
2021-09	6667	759	556	726	1267	202
2021-10	7156	968	726	884	1334	279
2021-11	6998	1057	791	946	1383	313
2021-12	10146	1323	965	1203	1740	411

Source: Own elaboration.

4.3 Search Engine Optimization (SEO) & Traffic Overview

The Visit Algarve website demonstrates an exceptional performance in the realm of SEO, a crucial determinant in its digital efficacy and user engagement dynamics. A website that loads quickly not only fosters a positive user experience but also has profound implications on user engagement metrics. It positively impacts critical factors such as conversion rates and bounce rates, thereby enhancing the overall effectiveness of the website in retaining visitor interest.

In terms of site authority, the website scores a site authority of 5 and a page authority of 51. These logarithmic scores, which range from 0 to 100, provide predictive insights into a website's potential to rank prominently on SERPs. The higher scores achieved by Visit Algarve indicate a robust potential for high search engine rankings, highlighting the effectiveness of its ongoing SEO efforts. Another noteworthy aspect of the website's SEO performance is its use of HTTPS. Transitioning to this secure version of HTTP not only bolsters the website's security credentials but also aligns with Google's ranking preferences, which have been known to provide a minor boost to websites utilizing HTTP.

The website's title, "VisitAlgarve - Portal de Turismo do Algarve," exemplifies best practices in SEO title tag formulation. It strikes an ideal balance between precision and descriptiveness, crucial elements for both SEO and enhancing user experience. Title tags play a pivotal role in SEO, as they provide a concise yet accurate representation of the webpage's content. While the website's meta description offers a comprehensive and well-crafted summary of its content, it is primarily in Portuguese. This language specificity could limit the site's accessibility and appeal to English-speaking users and search engines, signaling an area for potential enhancement in terms of international SEO strategy.

The content richness of the website is evident in its body word count of 1314 words. However, the content analysis reveals a gap in the usage of Emotion Marketing Triggers (EMTs) within the title, meta description, or body content. Incorporating elements of storytelling, surprise, or humor could significantly elevate user engagement, increase click-through rates, and enhance the overall appeal of the content. The analysis of website traffic data further underscores the effectiveness of the website's SEO strategy, particularly in drawing organic searches. A substantial volume of the site's traffic is attributable to organic searches, indicating a successful optimization that effectively

These word clouds collectively demonstrate the relationship between search volume and traffic, highlighting discrepancies where some high-volume keywords may not necessarily result in significant traffic, and vice versa.

There is a discernible positive correlation between the volume of keyword searches and the website's traffic. High-volume keywords often lead to increased traffic, underscoring the importance of targeting such keywords in SEO strategies to boost a website's visibility and attract more visitors. However, it's crucial to note that not all high-volume keywords contribute equally to website traffic. The relevance and specificity of keywords are also critical factors. For instance, while the generic keyword "Algarve" may have a high search volume, it might not generate as much targeted traffic as more specific keywords like "Algarve tourism" or "Visit Algarve." This distinction is important as the more specific keywords are likely to attract users with a keen interest in the region's tourist offerings, as opposed to the broader audience that might be searching for "Algarve" for various other reasons.

For example, the keyword "guadiana," despite having a substantial search volume of 9,900, results in negligible traffic due to its low SERP position of 99. Similarly, the keywords "albufeira" and "tavira," with search volumes of 6,500 and 5,400 respectively, fail to generate traffic because of their suboptimal rankings, even though they are moderately high in volume. These examples illustrate that while targeting high-volume keywords is essential, it is equally important to ensure that these keywords are relevant and well-positioned within search engine results to drive significant traffic.

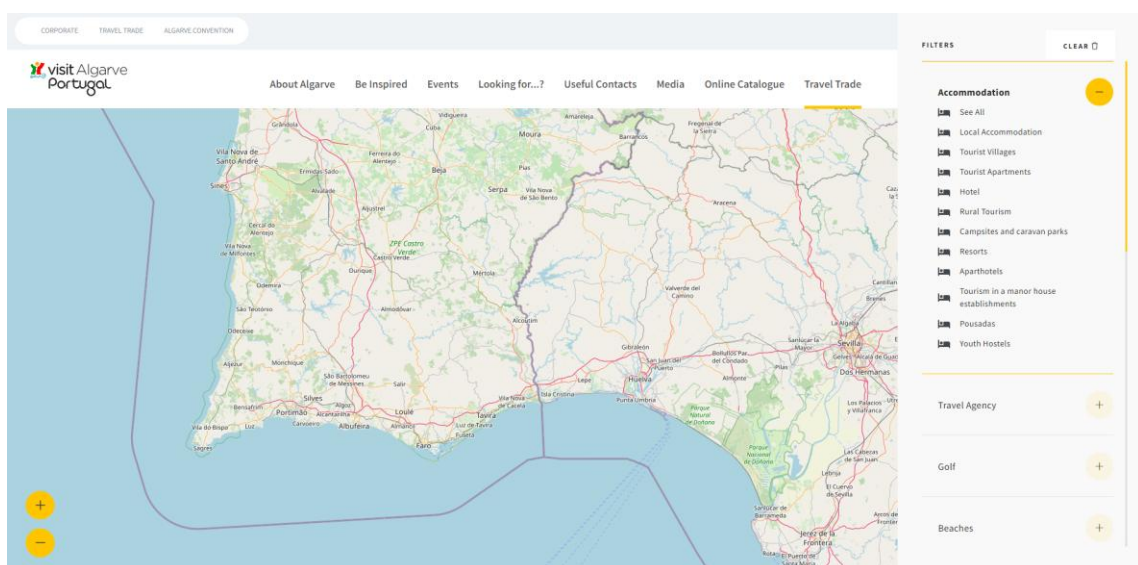
In conclusion, the Visit Algarve website adeptly utilizes a range of SEO techniques to attract a significant number of visitors and effectively promote tourism in the Algarve region. Its commitment to providing comprehensive, relevant regional information, coupled with the strategic employment of both high-volume and specific keywords, results in high visibility on SERPs and a considerable influx of organic traffic. This skilled application of SEO principles not only enhances the website's discoverability but also establishes it as a key digital platform for promoting tourism in the Algarve.

4.4. User Interface (UI)

The User Interface (UI) of a website plays a critical role in shaping the overall user experience. It is the UI that defines the aesthetics, presentation, and interactivity of a website, directly impacting user engagement and satisfaction. The website's layout is notably intuitive, as presented in Figure 18. It features well-structured navigation menus and submenus, which are integral to the site's usability. This layout ensures that information is easily accessible, aiding in quick and efficient information retrieval. The use of clear and concise labeling on the menus further streamlines the navigation process, allowing users to find what they need without unnecessary complexity.

However, for the Visit Algarve website to excel in delivering a visually captivating experience, it is necessary to adopt a more modern, minimalist design approach. Emphasizing high-resolution imagery and a cohesive color palette would not only enhance the visual appeal but also contribute positively to users' perceptions and satisfaction levels. A standout feature of the UI is the inclusion of an interactive map. This map provides a spatial representation of the Algarve region, highlighting key attractions and points of interest. Such interactive elements not only enrich the visual interface but also assist users in planning their travel, offering a practical tool that enhances the overall utility of the website.

Figure 18: Interactive map



Source: VisitAlgarve (2024).

4.5 User Experience (UX)

User Experience (UX) encompasses all aspects of an end-user's interaction with a website. The goal of UX is to provide a seamless, engaging, and valuable experience to the user. The Visit Algarve website achieves this by presenting information in a logical and digestible format. The presence of clear headings and subheadings facilitates easy reading and navigation, crucial for maintaining user engagement.

The website takes the UX a step further by offering a range of resources like guidebooks, maps, and other publications, all available online. These resources provide practical value for users, aiding in the planning of their visit to the Algarve. Such value-added features significantly enhance the UX by offering tools that go beyond basic information dissemination. However, there are opportunities to elevate the UX further. The website, while offering an English version, still retains some content, such as meta descriptions, in Portuguese. Expanding the language options to include multiple languages would make the website more accessible and inclusive, particularly important for a tourism website that attracts a global audience. Interactivity and engagement are other areas where the website shines. Sections like "Caravel Boa Esperança" offer an educational and engaging experience, allowing users to delve into the history of life aboard a caravel.

Furthermore, the "Algarve Craft & Food" section invites users to explore the region's traditional crafts and flavors, providing an immersive experience that enriches the UX. Lastly, the website offers comprehensive information on the diverse activities available in the Algarve. It showcases the region's offerings beyond its famed beaches, highlighting unique landscapes, rich culture, traditional values, and warm hospitality. This extensive and varied content helps users effectively plan their trips, maximizing their experience in the Algarve and contributing to an enriched UX.

5. Discussion

In the digital era, the role of tourism websites as pivotal conduits for destination marketing and user engagement has been emphatically underscored. This discussion, drawing upon the comprehensive analysis of the "VisitAlgarve" website, aims to dissect the multifaceted implications of its digital strategy and execution. The website, a microcosm of digital tourism's potential, illustrates the intricacies of user-centric design, SEO efficacy, and the dynamic nature of online branding. Our results underscored the website's impressive UI, marked by its intuitive layout and engaging interactive elements, and an effective UX strategy, characterized by logically arranged, easily digestible content and valuable resources. These aspects collectively heighten the overall user experience, aligning with emerging trends in digital user engagement.

Simultaneously, the "VisitAlgarve" website's performance in search engine optimization (SEO) and digital branding provides a profound understanding of the evolving digital landscape. The analysis revealed a robust SEO strategy, evident in the website's organic traffic and effective use of high-volume keywords, and a distinct digital identity that enhances the destination's appeal. However, the site's engagement with multilingual content and the balance between visual aesthetics and functional efficiency present areas for further exploration. This discussion will delve into the theoretical and practical nuances of these findings, examining how they align with current digital tourism research and what they imply for the future of online destination marketing. By dissecting these components, the discussion aims to offer a comprehensive understanding of the challenges and opportunities in optimizing digital platforms for tourism, crucial for destinations navigating the competitive online realm. This discussion seeks to extrapolate the theoretical and practical implications of the study's findings.

5.1 Theoretical implications

The extensive analysis of the "VisitAlgarve" website, rooted in its user interface (UI), user experience (UX), and search engine optimization (SEO) effectiveness, unveils a spectrum

of theoretical implications pivotal for the digital tourism domain. This discourse aims to explore these theoretical aspects, particularly focusing on how the intricate interplay of design, content, and SEO strategies shapes user engagement and website efficacy. By examining the "VisitAlgarve" website's alignment with academic theories related to digital interaction and online marketing, we seek to contribute to the broader discourse on digital tourism. The website's nuanced approach to UX, with its emphasis on intuitive navigation and content accessibility, alongside the strategic use of SEO for enhanced visibility, presents an opportunity to scrutinize the underlying theories that govern user behavior and website performance in the digital tourism landscape. This exploration not only highlights the complexities inherent in creating and maintaining a successful tourism website but also offers insights into the evolving paradigms of digital user engagement and the continuous adaptation required to meet the dynamic demands of online audiences.

User-Centric Design and Engagement: The pivotal role of User Experience (UX) in digital tourism is increasingly recognized,(Georgsson *et al.*, 2019). The "VisitAlgarve" website, with its intuitive design and user-friendly interface, serves as a case study in effective UX application. However, the crucial question that arises is whether a superior UX is necessarily equated with prolonged user engagement. While the data from "VisitAlgarve" indicates a positive correlation, the intricacies of causality between UX and sustained engagement warrant deeper exploration. This poses a significant theoretical challenge: understanding the nuanced relationship between UX elements and user engagement levels.

SEO and Authentic Content: Lee and Cho (2020)research on SEO challenges traditional approaches like keyword stuffing, emphasizing the importance of authentic, value-driven content. The "VisitAlgarve" website's performance underscores this paradigm shift towards content authenticity. However, given the dynamic nature of search engine algorithms, a key theoretical question emerges: How can websites maintain a sustainable balance between authenticity in content and strategic optimization to align with evolving SEO practices? This balance is critical for ensuring long-term visibility and relevance in search engines.

Digital Branding and Audience Appeal: Digital branding, as Martins (2020) argues, transcends mere visual identity, encapsulating the total online experience offered to visitors. The "VisitAlgarve" website's distinct digital branding strategy supports this viewpoint. However, this leads to a significant theoretical conundrum: In the pursuit of a

unique digital identity, do tourism destinations risk marginalizing certain user demographics? Understanding the balance between uniqueness and universal appeal in digital branding is a vital area for further theoretical inquiry.

5.2 Practical implications

The practical implications derived from the comprehensive evaluation of the "VisitAlgarve" website are as multifaceted as they are critical for the advancement of digital tourism strategies. This segment of the discussion pivots on translating the theoretical insights gleaned from the website's analysis into actionable strategies and best practices for digital tourism marketing. The website's exemplary integration of user-centric design elements, coupled with its robust SEO framework and distinctive digital branding, sets the stage for a detailed examination of the practical challenges and opportunities faced by tourism websites in the digital age. From balancing aesthetic appeal with functional efficiency to navigating the complexities of SEO in a constantly evolving digital landscape, the "VisitAlgarve" website serves as a case study for practical, real-world application. This discussion aims to dissect these elements, providing a roadmap for tourism websites to optimize their digital presence effectively. By doing so, it intends to equip digital tourism practitioners with the insights necessary to enhance user engagement, maximize online visibility, and ultimately, drive successful destination marketing in the increasingly competitive online tourism market.

Balancing Interactive Elements: The utilization of interactive elements like virtual tours, as suggested by Garcia (2020), can substantially enhance user engagement. The "VisitAlgarve" website's incorporation of such elements aligns with this approach, as reflected in its user metrics. However, the practical challenge lies in balancing the use of multimedia content without compromising the website's loading speed, which is essential for retaining user interest. Identifying the optimal balance between interactivity and website performance is a crucial practical consideration.

Holistic SEO Strategy: While the "VisitAlgarve" website's SEO performance is laudable, it also highlights the need for continuous adaptation in the digital marketing arena. The practical implication here, as Silva (2022) notes, is the potential risk of diluting

efforts by trying to cover too many bases in digital marketing. Developing a holistic yet focused SEO strategy that encompasses collaborations, guest postings, and digital PR, while avoiding the pitfall of overextension, is a key practical challenge.

Investment in Emerging Technologies: The saturation of the digital tourism market necessitates ongoing innovation to stand out. Technologies such as Augmented Reality (AR) and Virtual Reality (VR) present exciting new avenues but also bring technical and financial challenges. The practical question for destinations like the Algarve is assessing whether the investment in such technologies justifies the return on investment (ROI). Navigating this landscape of innovation versus practicality and cost-effectiveness is an essential consideration for tourism websites aiming to stay ahead in a competitive market.

6. Conclusions

6.1 Summary

In concluding the comprehensive analysis of the "VisitAlgarve" website, it's evident that the digital revolution has significantly reshaped the tourism sector, with websites like "VisitAlgarve" at the forefront of this transformation. This website serves as a quintessential example of how a tourist destination can successfully navigate and harness the complexities of digital tourism marketing. By meticulously blending user experience (UX) principles with strategic search engine optimization (SEO) and distinctive digital branding, "VisitAlgarve" has not only showcased its offerings to a global audience but also set a benchmark in online destination marketing.

The study revealed that the "VisitAlgarve" website's success hinges on its user-centric approach. The meticulous attention to UX design, characterized by intuitive navigation, engaging content, and a visually pleasing interface, underpins the site's ability to attract and retain visitors. This focus on user engagement is complemented by the website's adept SEO strategies, which ensure high visibility in an increasingly competitive digital space. Authentic content, paired with well-executed SEO tactics, has enabled the site to reach and resonate with its target audience effectively, demonstrating a harmonious balance between visibility and content authenticity.

Furthermore, the website's digital branding emerges as a critical factor in its online appeal. By offering a cohesive digital experience that mirrors the essence of the Algarve region, the website extends beyond being just an information portal; it becomes a digital ambassador for the destination. This branding strategy, combined with the website's innovative features and comprehensive content, effectively differentiates it in the crowded digital tourism market.

However, the journey does not end here. The digital landscape is ever evolving, and continuous innovation remains crucial. As the "VisitAlgarve" website adapts to new technologies and changing user preferences, its strategies will need to evolve to maintain its competitive edge and appeal. This study, while providing valuable insights, also opens

avenues for future research, particularly in exploring the evolving user expectations and the impact of emerging technologies on digital tourism marketing.

In essence, the "VisitAlgarve" website stands as a testament to the power of digital strategy in the tourism industry. Its success story offers valuable lessons for other destinations looking to enhance their online presence, highlighting the importance of a user-centric approach, strategic SEO, and distinctive digital branding in creating a compelling online destination.

6.2 Limitations

In reflecting upon the limitations of this study, it is essential to recognize the constraints that may affect the breadth and depth of our conclusions regarding the "VisitAlgarve" website. While the study offers a detailed examination of this particular website, its findings must be contextualized within the broader spectrum of digital tourism marketing.

Scope of Study: The study's exclusive focus on the "VisitAlgarve" website, albeit thorough and insightful, presents a limitation in terms of generalizability. The digital tourism landscape is vast and varied, encompassing a multitude of websites with differing strategies, designs, and user bases. As such, the insights gleaned from this study, while significant, may not fully encapsulate the diverse practices and challenges prevalent across the entire digital tourism domain. This limitation underscores the need for caution in extrapolating these findings to other tourism websites without considering their unique contexts and strategies.

Dynamic Nature of Search Engine Algorithms: The study, conducted within a specific timeframe, captures a snapshot of the website's performance in the context of the current state of search engine algorithms. However, search engines, particularly Google, are known for their frequently updated algorithms. These changes can significantly influence a website's visibility and ranking. Consequently, the findings of this study may not fully account for the potential impact of future algorithmic changes, highlighting a limitation in capturing the dynamic and ever-evolving nature of SEO.

Quantitative and Qualitative Balance: While the study's reliance on quantitative data provides objective and measurable insights into the website's performance, it may

inadvertently overlook the richness of qualitative aspects. User experiences, perceptions, and interactions often manifest through subjective channels such as feedback, testimonials, and reviews. These qualitative elements offer invaluable insights into user satisfaction and engagement, which might not be entirely captured through quantitative metrics. This limitation points to the necessity of incorporating a more balanced approach that integrates both quantitative and qualitative data to form a more holistic understanding of user engagement.

Technological Evolution: The study evaluates the website based on current technological standards and features. However, technology is rapidly evolving, and certain features analyzed in this study might become outdated, while new, more advanced features may emerge. This technological progression could impact the website's effectiveness and user appeal over time, indicating a limitation in the study's ability to foresee and incorporate future technological advancements.

Geographical and Cultural Considerations: Given the "VisitAlgarve" website's global reach, the study might not fully capture the geographical and cultural nuances that influence user interactions and preferences. Users from different regions may have varying expectations and behavioral patterns when engaging with tourism websites. This geographical and cultural diversity could significantly affect the online experience, suggesting a limitation in the study's ability to account for these regional differences.

Seasonality in Tourism: The tourism industry is inherently seasonal, with fluctuations in visitor numbers and interests throughout the year. The study, conducted over a specific period, may not capture these seasonal variations in user engagement and website traffic. This temporal limitation could affect the applicability of the findings across different times of the year, particularly in understanding how seasonal trends influence user behavior and website performance.

In conclusion, while the study provides valuable insights into the "VisitAlgarve" website's digital strategy and performance, these limitations highlight the importance of a cautious and context-aware interpretation of the findings. They also underscore the need for ongoing research that continuously adapts to the dynamic digital landscape, technological advancements, and the diverse needs of the global tourism audience.

6.3 Future work

The future trajectory of research in digital tourism marketing, particularly in the context of websites like "VisitAlgarve", presents fertile ground for comprehensive exploration. This section outlines potential areas for future studies, aiming to build upon the findings of the current analysis and address its limitations.

Broader Comparative Analysis: There is a compelling need for future research to extend its scope beyond a single website. A comparative analysis involving multiple tourism websites would provide a more panoramic view of the digital tourism landscape. Such a study could uncover industry-wide best practices, innovations, and differing strategies employed by various destinations. This broader perspective would not only enrich the understanding of digital tourism marketing but also facilitate the identification of trends, patterns, and divergent approaches that contribute to online success in tourism.

Exploring Emerging Technologies: The rapid evolution of digital technologies necessitates ongoing research into their applications and impacts on the tourism sector. Future studies should delve into emerging technologies like Augmented Reality (AR), Virtual Reality (VR), and Artificial Intelligence (AI). Evaluating how these technologies are being integrated into tourism websites and their effect on the digital tourism experience would provide invaluable insights. This research could explore how such technologies enhance user engagement, provide immersive experiences, and potentially transform the way destinations are marketed online.

User-Centric Research Approaches: While the present study offers valuable insights from a top-down perspective, there is a significant opportunity for future research to adopt a user-centric, bottom-up approach. This would involve directly capturing user feedback, preferences, and pain points through methods such as surveys, interviews, and focus groups. Such firsthand data can offer a deeper understanding of user experiences, expectations, and the effectiveness of various website features from the visitor's perspective.

Longitudinal Studies: To capture the dynamic nature of the digital tourism landscape, future research should consider longitudinal studies. This approach would track changes and developments in website performance over time, providing insights into the long-

term impacts of algorithm updates, design modifications, and content strategy shifts. A longitudinal study would offer a more comprehensive view of the evolving nature of digital tourism marketing and its sustained effects.

Integration with the Offline Tourism Experience: The connection between the online and offline experiences in tourism is an area ripe for exploration. Future studies should investigate how digital strategies, particularly tourism websites, integrate with and influence the physical tourism experience. Understanding how online content and tools translate into actual visits and activities in the destination would provide a holistic view of the customer journey, from digital exploration to physical visitation.

Economic Impact Assessment: Finally, a critical aspect of future research should be the economic impact assessment of tourism websites. Beyond metrics of engagement and visibility, the ultimate test of a website's effectiveness lies in its contribution to actual bookings, visits, and overall economic activity in the destination. Investigating the "VisitAlgarve" website's role in driving economic benefits would offer a pragmatic evaluation of its effectiveness and ROI, providing a crucial link between digital marketing strategies and tangible economic outcomes.

In sum, these future research directions aim to deepen the understanding of digital tourism marketing, exploring new technologies, user perspectives, and the broader economic implications. This forward-looking approach is essential for adapting to the rapidly changing digital landscape and maximizing the potential of online platforms in promoting tourism destinations.

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