Academic Mapping of Digital Marketing and Tourism Marketing: A Bibliometric Analysis

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Abstract

As a result of technical improvements, modern marketing strategies are changing, and digitalization is becoming a crucial strategic tool, especially in technologically and environmentally sensitive sectors like tourism. To find current trends, gaps, and conceptual frameworks in the domains of digital marketing and tourism marketing, this study uses bibliometric analysis. The Web of Science and Scopus databases were searched using the keywords "tourism marketing" and "digital marketing" for the years 2020–2024, yielding a total of 656 English-language documents. Using conceptual and thematic structure maps, the study effectively illustrates the main themes and links between these two fields. Popular "motor themes" in the literature, including "sustainable tourism," "digital transformation," and "social media," are highlighted by thematic maps. They also emphasize less-known but intriguing subjects, such "digital literacy" and "digital nomadism." Conceptual structural maps highlight important gaps in the research by illuminating connections between more general theme clusters like digitization, consumer behavior, and experience tourism. Research gaps and possible areas of investigation are concretized by the findings, which make it easier to visualize scholarly trends in the fields of digital marketing and tourism marketing. These findings advance knowledge of the effects of digitization on the travel and tourism industry in both scholarly and real-world settings. This work provides a fresh addition to the literature by employing visualization techniques and carrying out a thorough examination of theme linkages.

Keywords: Digital Marketing, Tourism Marketing, Bibliometric Analysis, R Studio, Biblioshiny.

JEL Codes: L83, M31, Z33

Introduction

Technological advancements have consistently shaped marketing practices, with businesses across various sectors seeking to enhance their marketing performance to remain competitive in evolving markets (Perreault et al., 2013). Among these advancements, information and communication technologies (ICT) have played a transformative role, encompassing tools such as computer networks, satellite systems, and online media platforms that streamline the exchange of information between buyers and sellers (Madison & Darnton, 1996). These innovations have significantly reduced the need for intermediaries, enabling businesses to engage directly with their target audiences.

In the tourism sector, which is particularly sensitive to environmental and technological shifts, the adoption of digital tools has become a critical factor in maintaining a competitive edge. For instance, research highlights the strategic importance of electronic distribution channels and online platforms in reaching global audiences and improving customer engagement (Buhalis, 1998; Ma et al., 2003). Recent studies further emphasize the role of social media, dynamic pricing models, and AI-powered personalization in shaping tourism marketing strategies (Kim & Lee, 2021; Zhang et al., 2023). As digital marketing evolves, tourism businesses that fail to integrate these technologies risk falling behind their more innovative competitors.

Given the growing intersection between digital and tourism marketing, this study employs a bibliometric analysis to systematically review the literature on these fields. By categorizing studies published between 2020 and 2024, the research aims to identify key trends, gaps, and conceptual frameworks, offering a comprehensive understanding of how these two disciplines interact. This approach not only provides an updated synthesis of the existing research but also highlights underexplored areas, such as digital literacy and sustainable tourism marketing, which warrant further investigation

Furthermore this study aims to examine the studies that examine tourism marketing and digital marketing together by using the bibliometric analysis method. It is important to categorize the studies that examine tourism marketing and digital marketing together with certain parameters in order to reveal how both concepts are examined.

Moreover this study provides a comprehensive analysis of scientific production and the development of research in the fields of digital marketing and tourism marketing. This study aims to examine research that addresses the concepts of digital marketing and tourism marketing together within the framework of bibliometric analysis, based on data obtained from the WoS and Scopus databases. Notably, there has been a significant increase in research activities in these areas between 2020 and 2024 (Kalia et al., 2022; Madzik et al., 2023; Wahyu et al., 2023; Kozak & Correia, 2024; Chamboko-Mpotaringa & Tichaawa, 2024). This trend reveals that, influenced by the COVID-19 pandemic, the effects of digitalization in the tourism sector have been increasingly studied, and the importance of digital marketing strategies has become even more prominent during this time.

In this context, the current study differs from previous research by taking a holistic approach to examining the impact of post-COVID-19 digitalization on tourism marketing, analyzing research trends and methodological developments in the field. For example, unlike prior studies, it emphasizes not only a specific period but also the rapid development of digital marketing and tourism marketing between 2020 and 2024, and how this process has been influenced by the pandemic. Furthermore, this study provides a broader perspective for future research by deeply exploring the thematic connections between digital marketing and tourism marketing. In this regard, it makes a strategic contribution to the existing literature.

Literature Review

The diversity of research in tourism marketing and digital marketing, and the fact that these topics are still in the focus of researchers' attention, indicate that these fields are highly suitable for bibliometric analysis. Table 1 presents a summary of the studies conducted by various authors in recent years.

Table 1. Summary of Digital Marketing & Tourism Marketing Review Paper by Author

Authors	Subject Area	Covered period	Methods	Number of papers collected	Sources
Kalia et al., (2022)	Digital Tourism Marketing	1987- 2020	Bibliometric Analysis	827 papers	Scopus, Web of Science

Madzik et al., (2023)	Digital Transformation in Tourism Marketing	2013-2022	Bibliometric Analysis, Topic Modeling (LDA)	3,683 papers	Web of Science, Scopus
Wahyu et al., (2023)	Digital Marketing	2007-2022	Bibliometric Analysis, Visualization (Vos-Viewer)	980 articles	Scopus, Local Sources
Kozak & Correia (2024)	Tourism Marketing	1969-2024	Bibliometric analysis, content analysis, word clouds, social network analysis	9,239 articles	Scopus
Chamboko-Mpotaringa & Tichaawa (2024)	Metaverse/ Digital Transformation in Tourism Marketing	2019-2023	Bibliometric Analysis, Content Analysis	26 articles	Scopus, Web of Science, other prominent scientific databases

Source: Own Elaboration

Kalia et al. (2022) conducted a bibliometric analysis of 827 articles on digital tourism over the last three decades, aiming to provide a comprehensive view of the field. The study highlights new research directions such as the management of smart destinations, the use of the internet as a communication and marketing tool, the role of technology in sustainability, and consumer behavior in the context of digital tourism. The findings reveal limited scholarly interest and collaboration in regions such as Russia and Africa, providing opportunities for future strategies and initiatives for researchers and businesses. This analysis brings an organized perspective to a fragmented literature, revealing the evolution of digital tourism research.

Madzik et al. (2023) examined digital transformation research in the tourism sector between 2013 and 2022. The study analyzed 3,683 articles from Web of Science and Scopus using an innovative machine learning-based "smart literature search" method. The findings revealed eight main topics related to digital transformation in tourism, including city and urban planning, social media, data analytics, sustainable and economic development, technology-based experience and engagement, cultural heritage, digital destination marketing, and smart tourism management. During the COVID-19 pandemic, research has focused more on smart analytics, marketing strategies, and sustainability. Topic modeling analysis using the Latent Dirichlet Allocation (LDA) method revealed hidden topics that may be overlooked by bibliometric methods and provided important insights into the evolution of digital transformation research in tourism.

Wahyu et al. (2023) examined digital marketing research in Indonesia between 2007 and 2022 using bibliometric analysis and visual mapping with Vos-Viewer. In total, 980 articles and 9,504 citations were evaluated, with an 80% increase in the number of publications in 2020. The visual analysis reveals 49 keywords and 7 research clusters, highlighting topics that remain to be explored in the field of digital marketing. The findings highlight unexplored research topics in digital marketing in the Indonesian context, providing a valuable guide for future researchers.

Chamboko-Mpotaringa & Tichaawa (2024) comprehensively examined the effects of the metaverse on tourism marketing. Using bibliometric analysis and content analysis methods, 26 academic articles in this field were evaluated. The study revealed that the use of the metaverse in the tourism sector is still in its infancy and has attracted academic attention, especially since 2023. The study highlights the potential of digital transformation to transform user experiences and marketing strategies in the tourism sector. Furthermore, by analyzing the collaboration networks among researchers, the thematic areas of the metaverse in tourism marketing and future research topics were identified. These findings highlight the changes that the metaverse has brought about in the marketing paradigm and provide strategic recommendations for both practitioners and policymakers. The study makes a significant contribution to the literature on digital transformation and tourism marketing.

Kozak & Correia (2024) examined the academic development of tourism marketing in detail. The study examined 9,239 academic articles published betwe-

en 1969 and 2024 and analyzed the progression of tourism marketing through four waves in the field. Using methods such as bibliometric analysis, content analysis, word clouds, and social network analysis, clusters of topics and the connections between these clusters were revealed. The study reveals that the field of tourism marketing has been in continuous development since the late 1960s, with a significant increase in the number of articles and diversity of topics, especially after the 2000s. The findings show that new topics have been added in each wave, and the literature has become increasingly diversified. In addition, the research provides insights into the future trends in tourism marketing and contributes to the identification of gaps in the literature and the development of new areas of research.

Tourism Marketing

Tourism marketing has become a major research topic and holds a vital place in the country's economy and the expansion of the sector. Tourism is a significant source of income for many countries, as it directly and indirectly creates employment, increases foreign trade revenues, and contributes to the growth of local economies (Geng et al., 2024). Tourism marketing, distinct from other forms of marketing due to the intangible and experience-based nature of its products, involves strategies that aim not only to promote services but also to enhance the attractiveness of destinations. These strategies focus on creating unique and memorable experiences for visitors, aligning with the expectations and needs of target audiences. Unlike traditional marketing, tourism marketing addresses complex decision-making processes by highlighting destination-specific cultural, natural, and historical assets, requiring a nuanced approach to communication and promotion strategies (Chakraborty et al., 2023). Moreover, it encompasses the promotion of intangible and experience-based products, which distinguishes it from other service sector marketing efforts (Gretzel et al., 2015).

Tourism marketing extends beyond the mere promotion of products or services within the sector. It includes developing strategies to enhance destination attractiveness and offer better experiences to visitors (Buhalis, 2000). According to Kozak (2014), tourism marketing involves presenting a destination or touristic product in alignment with the needs and expectations of the target audience, thereby creating value throughout the process.

The tourism sector's marketing system integrates various essential components. These include sales promotions, price analysis, advertisement planning, forecasting customer revenue, understanding consumer needs, and offering a wide range of products. Such elements must be cohesively managed to enhance competitiveness and ensure guest satisfaction in the tourism sector (Kozak, 2014). Technological advancements have further reshaped this landscape, creating new frameworks for promoting and consuming tourism-related information.

The integration of digitalization into tourism marketing has not only intensified competition but also transformed traditional practices. Businesses effectively leveraging digital tools can improve operational efficiency, enhance customer satisfaction, and strengthen their competitive positioning (Imtiaz & Kim, 2019). Internet technologies have become indispensable in marketing activities such as booking, purchasing, and product promotion. Tourism businesses extensively utilize Internet-based marketing strategies, a trend expected to grow in the future (Law et al., 2007).

Tourism marketing has increasingly evolved into a field where digital marketing communication tools play a central role, driven by the rapid advancement of digital technology and the widespread use of the internet. As the internet becomes more integrated into daily life, it has fundamentally transformed how businesses in the tourism sector interact with potential customers, market their products, and manage customer relationships. Digital marketing tools, such as social media platforms, search engine optimization (SEO), email marketing, and online advertising, have become indispensable for tourism businesses looking to enhance their visibility, reach broader audiences, and engage with customers in real time (Fedorko et al., 2024; Truong et al., 2024).

Digital Marketing

The continuously evolving structure of the Internet and its complex technological infrastructure enable businesses to shift their marketing strategies to digital channels. Digital marketing emerged in the 1990s with the widespread use of the Internet for commercial purposes, and it rapidly grew in the 2000s with the development of Web 2.0 technologies, offering opportunities for two-way communication (Kaplan & Haenlein, 2010). This transformation has found a wide application in tourism marketing, particularly focused on understanding consumer expectations and personalizing experiences (Gretzel et al., 2015).

Digital marketing is also referred to by various terms such as online marketing, electronic marketing, and web marketing, and it involves conducting marketing activities through electronic devices (Lies, 2019; Fahad & Tran, 2019). The Digital Marketing Institute defines this concept as an integrated, targeted, and measurable communication process carried out through digital technologies, aimed at customer acquisition and retention (Järvinen, 2016).

Digital marketing is based on inbound marketing, which is a customer-oriented approach (Todor, 2016; Lies, 2019). This strategy enables businesses to interact with their customers in the digital environment.

Various digital tools such as social media, online videos, mobile advertising, email marketing, and blogs allow businesses to connect with consumers anywhere and anytime (Kotler & Armstrong, 2017; Bala & Verma, 2018). The digital platforms used in this process play an important role in developing and managing customer relationships.

The history of digital marketing has gone through different phases under the influence of technological developments. In particular, the establishment of the Direct and Digital Marketing Institute in 1988 was a turning point in the field of digital marketing (Webber, 2013). With the widespread use of the Internet, the development of digital marketing has accelerated. The introduction of the World Wide Web in the early 1990s and the emergence of the first e-commerce platforms enabled businesses to move their marketing activities to the digital environment (Chaffey & Smith, 2022).

The concept of digital marketing was first introduced in the 1990s and gained a new dimension with the rise of major e-commerce platforms such as Amazon and eBay (Singh et al., 2016; Desai & Vidyapeeth, 2019). In 1994, the widespread commercial use of the internet accelerated the development of basic digital marketing tools such as online advertising and email marketing (Castells, 1996).

In the 2000s, digital marketing became interactive with the development of Web 2.0 technologies. The emergence of social media platforms such as Facebook, Twitter, and YouTube enabled brands to establish a more personal relationship with consumers and led to the development of new strategies such as "viral marketing" (Kaplan & Haenlein, 2010; Ryan, 2016). In this period, the popularization of mobile devices has taken digital marketing to a new dimension.

With the proliferation of mobile technologies and smartphones in the 2010s, digital marketing gained the capacity to reach consumers anytime and anywhere. Big data analytics, personalized marketing, and artificial intelligence applications became the focus of digital marketing during this period (Kartajaya et al., 2019). The power of digital marketing lies in its ability to develop and manage customer relationships through these various digital platforms. In Table 2, it is possible to see the definitions of "digital marketing" in detail.

Table 2. Definition of Digital Marketing

Digital Marketing Definition	Author and Year
Digital marketing is the process by which businesses develop and manage customer relationships through online technologies.	Chaffey et al., (2009)
Digital marketing is the marketing activities carried out to interact with target audiences and increase brand awareness using digital tools.	Ryan (2016)
Digital marketing is a method of communicating marketing messages to targeted audiences using digital technologies.	Frost & Strauss (2016)
Digital marketing is defined as a flexible process where companies work in harmony with customers and partners to create, communicate and deliver value for all stakeholders and develop sustainable partnerships with the support of technology.	Kannan (2017)
Digital marketing is the promotion of products and services to meet customer needs through digital channels and platforms.	Kartajaya et al., (2019)
Digital marketing is defined as the set of activities and practices that aim to manage relationships with target audiences through digital information and communication technologies and electronic devices, using all aspects of an organization's traditional marketing.	Sokolova & Titova (2019)
Digital marketing is a process that allows businesses to optimize their marketing strategies through digital media and platforms.	Kingsnorth (2022)

Source: Own Elaboration

Today, digital marketing is shaped by the integration of technologies such as big data, artificial intelligence, and the Internet of Things (IoT). This enables businesses to run more personalized and effective campaigns. Moreover, digital marketing tools enable organizations to better analyze consumer behavior and flexibly adapt their promotional strategies to the marketing conditions (Ovcharenko et al., 2018).

In this context, digital marketing has the capacity to reach large audiences through both online and offline channels. The continuous and high-quality two-way communication offered by technology allows businesses to engage dynamically with consumers (Sokolova & Titova, 2019; Shpylyk et al., 2021). These features of digital marketing provide businesses with flexibility, speed, and strategic advantage.

Digital marketing is not only a promotional tool but also plays a critical role in the process of optimizing businesses' marketing activities and increasing customer satisfaction. Therefore, adapting digital marketing strategies to constantly evolving technology and changing consumer expectations increases the competitiveness of businesses (Bala & Verma, 2018).

Digitalization in the Tourism Industry

Since the 1980s, technology developments have had a significant impact on the tourism industry, changing how business-consumer interactions are conducted and how information on tourism is distributed and consumed. Particularly with the introduction of the Internet, international travel planning procedures have been redesigned, allowing travel agencies to adopt new information and communication technology. These developments have simplified conventional procedures and made it easier to build a knowledge-based infrastructure (Buhalis & Law, 2008).

According to Dalgın and Karadağ (2013), digitalization has intensified competition in the tourism industry, providing businesses with opportunities to gain a competitive edge through the effective use of digital tools. By leveraging digital marketing, enterprises can enhance brand visibility and offer personalized services, thereby meeting evolving consumer expectations. Digital marketing methods are widely utilized across key tourism sub-sectors, including accommodation, travel, food and beverage, and transportation. These methods provide significant advantages, such as real-time access to customer information, the ability to reach broader markets, seamless transaction processes, and the capability to conduct direct promotional activities without intermediaries.

The interactive nature of digital platforms allows businesses to incorporate consumer preferences more effectively into product and service development. Through active participation and two-way communication, consumers influence marketing processes from product design to delivery. This approach enables businesses to align their offerings with market demands while addressing individual needs (Mucuk, 2006). For instance, user-generated content shared on tourism portals provides valuable insights for potential travelers, influencing their travel decisions and shaping demand patterns (Doğan et al., 2018). Furthermore, websites, as a crucial digital marketing tool, create strong first impressions and play a pivotal role in guiding consumers through the decision-making process (Salem, 2017).

In recent years, the widespread adoption of the Internet and social media has further underscored the importance of digital platforms in tourism marketing. In 2023, approximately 65% of the global population had Internet access, with nearly 60% actively using social media (We Are Social, 2023). These figures highlight the growing significance of digital marketing tools such as search engines, email campaigns, multimedia content, and mobile applications in engaging target audiences and enhancing brand visibility.

Digitalization's transformative impact on the tourism sector extends beyond marketing to influence consumer behavior and innovation. By leveraging digital tools, tourism enterprises can foster competitive advantages, strengthen their market position, and shape unique customer experiences. Such practices emphasize the pivotal role of digitalization in driving the evolution of tourism marketing, enabling businesses to thrive in an increasingly competitive environment.

Methodology

Data Analysis Method

An effective method for a thorough analysis of scientific output in a particular field of study is bibliometric analysis, which makes it possible to determine important research trends, fundamental ideas, and academic partnerships. In order to comprehend the evolution of the literature in the domains of digital marketing and tourism marketing, to pinpoint significant themes and patterns in these sectors, and to identify research gaps and possible future research avenues, bibliometric analysis was selected for this study.

Bibliometric analysis has attracted attention as a frequently used method in recent years. It is an important research element in the compilation and categorization of national and international literature and in revealing frequently referenced or perhaps overlooked points related to the fields.

Bibliometric analysis is based on analyzing bibliographic data with statistical methods to measure the production, dissemination, and impact of scientific works. It can be done on the basis of author, article, journal, and subject, or it includes different methods such as citation analysis, number of publications, author collaboration, country of publication, and keyword analysis (Glänzel, 2003).

R Studio allows users to work effectively with complex data sets using the rich statistical and graphical functions offered by the R language. It is also extensible with R libraries, enabling users to meet specific needs in various fields (biostatistics, finance, and social sciences) (Wickham, 2019). At the academic level, R Studio's analytical capabilities and data visualization features accelerate research processes and support data-driven decision-making. In particular, with the adoption of the concept of reproducible research, R Studio helps researchers make their work more transparent and accessible (Peng, 2011). Biblioshiny is an open-source software tool developed in the R language and is used in bibliometrics to review and analyze academic literature. The tool provides a user-friendly web interface for visualization and analysis of bibliometric data. With Biblioshiny, researchers can easily analyze various bibliometric indicators such as publications, citations, and collaborations (Aria & Cuccurullo, 2017). Due to the benefits they provide to researchers, R Studio and its Biblioshiny package were selected for this research.

In the study, the concepts of "tourism marketing" and "digital marketing" were selected as keywords in Scopus and Web of Science databases on October 20, 2024, and scanned for analysis. Some limitations were applied while conducting these scans.

In the Web of Science database, title, abstract, author keywords, and Keywords Plus were included in the "subject" field. In the Scopus database, the code "article title, abstract" was used. In both databases, the search was limited to books, journal articles, book chapters, conference proceedings, and reviews published in English between 2020 and 2024. The decision to focus the study on the period between 2020 and 2024 was made with the intention of specifically addressing a period in which academic production in the fields of digital marketing and

tourism marketing rapidly increased following the pandemic. Particularly during this period, the rise of digitalization in industries, influenced by the COVID-19 pandemic, has led to the emergence of new research areas and thematic trends in the literature. Therefore, the time frame the study focuses on is a strategic choice to examine the effects of digitalization and the shifts in the literature more comprehensively.

Data Collection Steps

As a result of these filters and limitations, the searches yielded 983 documents in Scopus and 1152 documents in Web of Science. In order to determine the scope of the literature on digital marketing and tourism marketing and to understand its global spread, the articles and other scientific documents were carefully reviewed and used in the bibliometric analysis.

The parameters "title," "abstract," "author keywords," and "keywords plus" in WoS and "article, title," and "abstract" in Scopus were used to filter the analyzed papers. The results of this search were further limited by excluding inappropriate subject areas, publication years (2020–2024), language (English), and document categories (articles, books, book chapters, conference papers, and reviews). 426 papers from Scopus and 496 documents from WoS were subjected to bibliometric analysis. Duplicate studies found in WoS (266 papers) and Scopus were eliminated. Duplicate studies found in WoS (266 papers) and Scopus were eliminated. R Studio's Bibliometrix library was used to combine data from Scopus and WoS. A dataset of 656 different publications obtained from WoS and Scopus was obtained. The 656 documents compiled between 2020 and 2024 were analyzed using R programming and the Bibliometrix and Biblioshiny packages in R Studio.

This approach enabled the identification of common trends, the identification of gaps in the literature, the differentiation of potential research areas, the highlighting of leading countries, sources, and authors, and the clarification of relationships between keywords, the details of which are presented in the findings section.

Figure 1. PRISMA Flow Chart for Bibliometric Analysis
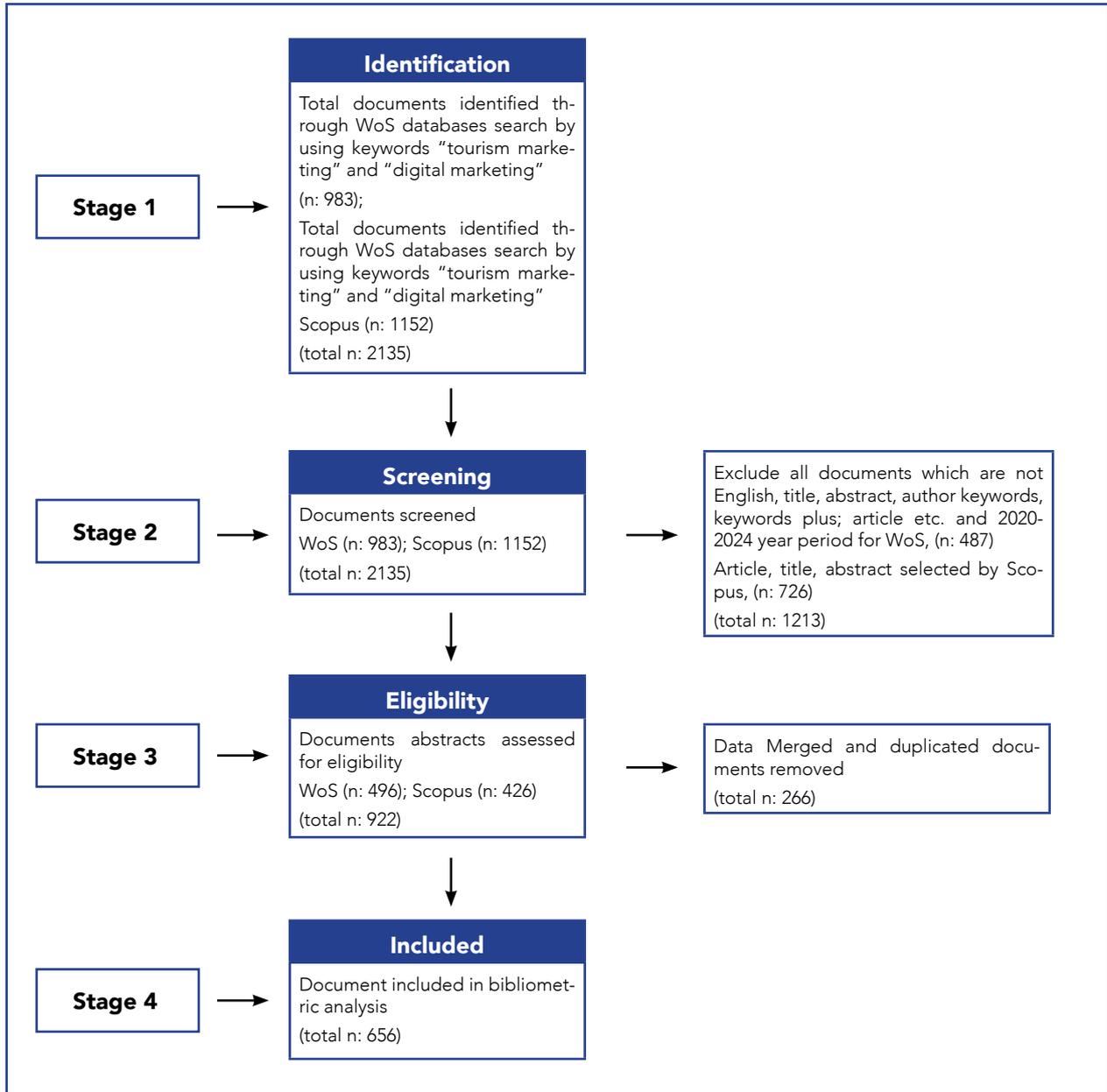
Findings

Table 3 provides a summary of the data obtained with the Bibliometrix and Biblioshiny tools using the R programming language and R-Studio. Between 2020 and 2024, 2084 authors contributed to a total of 656 documents published in Web of Science and Scopus databases. These publications are from 356 different sources (journals, books, etc.). The analysis shows an annual growth rate of 28.13%.

The document types analyzed included 593 articles, 54 early access articles, 4 book chapters, and 3 retracted publications. It was also calculated that an average of 10.37 citations were received for each document. The number of single-author publications was 78, with an average of 3.49 co-authors per document. The keywords used in the study included 2419 different keywords as author keywords (DE)

and 1069 different keywords as keywords plus (ID). These data can be considered an indicator of interdisciplinary collaboration and the rapid growth in academic publishing.

Table 3. Main Information Data

MAIN INFORMATION DATA	
Description	**Results**
Sources (Journals, Books, etc.)	356
Documents	656
Annual Growth Rate %	28.13
Document Average Age	1.54

Average citations per doc	10.37
Keywords Plus (ID)	1069
Author's Keywords (DE)	2419
Authors	2084
Authors of single-authored docs	78
Co-Authors per Doc	3,49
DOCUMENT TYPES	
Article	593
Article; book chapter	4
Article; data paper	1
Article; early access	54
Article; proceedings paper	1
Article; retracted publication	3

Source: Biblioshiny, based on WoS and Scopus dataset

The distribution of studies on digital marketing and tourism marketing between 2020 and 2024 by year is summarized in Figure 2.
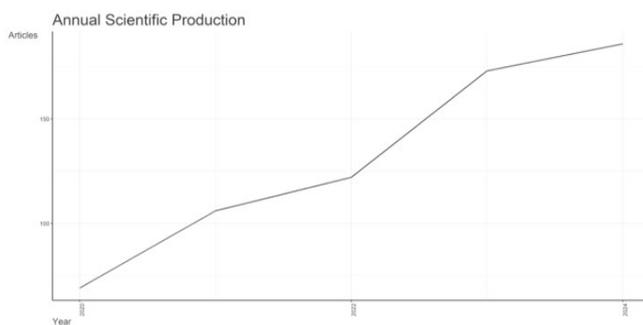

Figure 2. Distribution of Articles by Time

Source: Biblioshiny, based on WoS and Scopus dataset

In 2020, 69 articles were published on digital marketing and tourism marketing, and this number increased to 106 in 2021 and 122 in 2022. By 2023, this number reached 173 articles, while a total of 186 articles were published in 2024. These data reveal that scientific production in the field of digital marketing and tourism marketing shows a continuous upward trend. Articles published in 2024 and 2023 stand out as the highest production periods, accounting for 28.35% and 26.37% of total publications, respectively. 2022 ranked third with 18.59%, followed by 2021 and 2020 with 16.15% and 10.51%, respectively. This trend can be attributed to the increasing impact of digital technologies in the tourism sector and the

more intensive focus on digital marketing strategies, especially in the post-pandemic period. This increase in research outputs clearly reflects the growing academic interest in digitalization and innovative marketing.
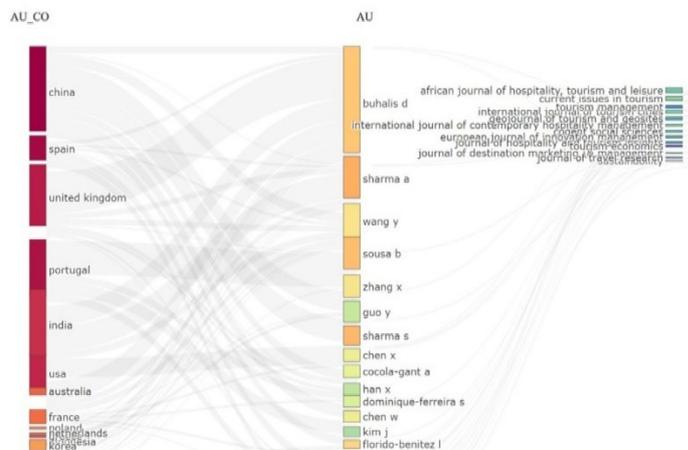

Figure 3. Three-Fields-Plot

Source: Biblioshiny, based on WoS and Scopus dataset

Analyzing the relationships of nations, authors, and publications can provide valuable insights for understanding important discoveries and emerging research trends (Donthu et al., 2021). In this context, Figure 3 presents a three-field analysis visualizing the interactions between the countries to which authors belong (left), the leading authors (middle), and the academic journals in which studies are published (right). The graph shows that authors from countries such as China, the United Kingdom, and Spain stand out with their works published in internationally respected journals on tourism marketing and digital marketing.

For example, Chinese researchers are more likely to publish in journals such as "Journal of Hospitality and Tourism Management" and "International Journal of Contemporary Hospitality Management," while Spanish authors are more likely to publish in journals focusing on tourism and destination marketing. In addition, prominent authors such as Sharma and Buhalis stand out with their contributions in these areas and provide studies that shape the research field. By revealing the links between countries, authors, and academic journals, this analysis provides a valuable tool for understanding the general trends of international collaboration and academic productivity, especially in the fields of tourism marketing and digital marketing.

According to the data in Figure 4, the journals with the highest number of publications in the field of digital marketing and tourism marketing are *Sustainability, Worldwide Hospitality and Tourism Themes,*

Current Issues in Tourism, International Journal of Tourism Cities, and International Journal of Contemporary Hospitality Management.
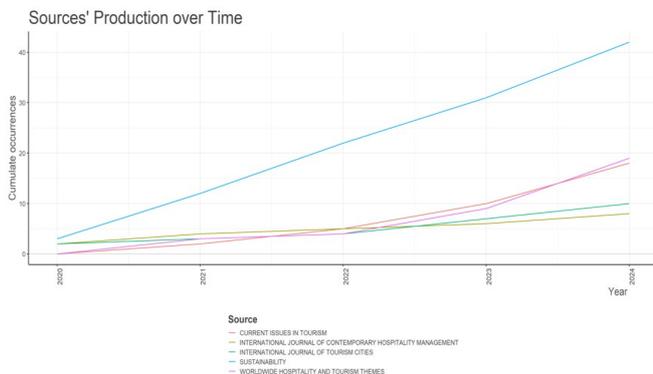

Figure 4. Production Over Time

Figure 5. Most Relevant Authors
Source: Biblioshiny, based on Web of Science (WoS) and Scopus dataset

When the annual production is analyzed, it is observed that the journal Sustainability published 3 articles in 2020, and this number steadily increased each year, reaching 42 in 2024. The journal Worldwide Hospitality and Tourism Themes did not publish any articles in 2020 but demonstrated a notable rise by publishing 3 articles in 2021, 4 articles in 2022, 9 articles in 2023, and 19 articles in 2024.

Similarly, Current Issues in Tourism did not publish any articles in 2020 but started with 2 articles in 2021, reached 10 articles in 2023, and 18 articles in 2024. While 2 articles were published in the International Journal of Tourism Cities in 2020, this number increased steadily until 2024 and reached 10. The International Journal of Contemporary Hospitality Management also published 2 articles in 2020, and this number increased to 8 by 2024.

These data show that interest in digital marketing and tourism marketing has been increasing over the years, with Sustainability magazine in particular leading the way. These trends highlight that the impact of digitalization and sustainability in the tourism sector is increasingly being explored.

Analyses based on a specific set of articles, co-authorship relationships, and citations provide valuable information for understanding the authors who contribute the most to a field (Aria & Cuccurullo, 2017; Kumar et al., 2021). The authors who contributed the most to the research topic are listed in Figure 5 according to the number of articles they published. Sharma A. stands out as the most prolific author in the field with eight articles. He is followed by Sharma S. with seven publications and Sousa B. with five publications. These findings emphasize Sharma's leadership in this field and the importance of his scientific contributions. The continuous and regular contributions of these authors clearly demonstrate their influence in the relevant research field.
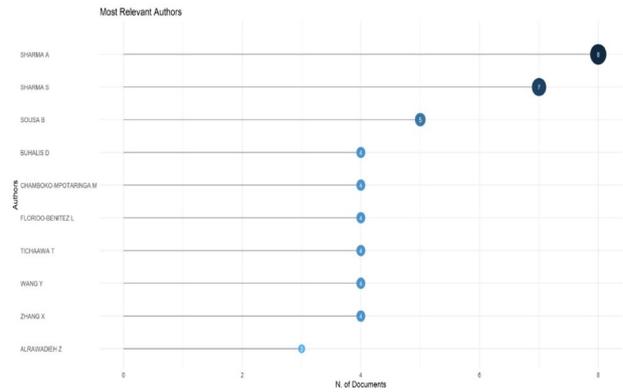
Table 4 shows the countries that contribute the most to the field of digital marketing and tourism marketing. China is the largest contributor with 90 articles, accounting for 13.7% of the total. Spain ranks second with 49 articles (7.5%) and Indonesia ranks third with 35 articles (5.3%). In terms of single country production (SCP), China ranks first with 73 articles, followed by Spain with 37 articles and Indonesia with 29 articles.

Table 4. The 10 Most Influential Countries in Digital Marketing and Tourism Marketing

Country	Articles	Articles %	SCP	MCP	MCP %
CHINA	90	13,7	73	17	18,9
SPAIN	49	7,5	37	12	24,5
INDONESIA	35	5,3	29	6	17,1
PORTUGAL	32	4,9	29	3	9,4
ITALY	29	4,4	24	5	17,2
INDIA	28	4,3	25	3	10,7
USA	27	4,1	19	8	29,6
UNITED KINGDOM	25	3,8	13	12	48
UKRAINE	20	3	18	2	10
GREECE	15	2,3	12	3	20

Source: Biblioshiny, based on Web of Science (WoS) and Scopus dataset

In terms of multi-country cooperation (MCP) rates, the United Kingdom has the highest rate with 48%. This is followed by the USA with 29.6% and Spain with 24.5%. In terms of the number of multi-country collaborations, China leads with 17 articles, followed by Spain (12 articles) and the United Kingdom (12 articles). This data shows that China is the leader in single-country production, with Spain and Indonesia making significant contributions. However, the high MCP rates of countries such as the United Kingdom and the United States suggest that they stand out in international cooperation and interaction. On the other hand, countries such as Portugal (9.4%) and India (10.7%) exhibit a domestic production-oriented approach rather than international cooperation.

The most cited articles in the field of digital marketing and tourism marketing between 2019 and 2024 are presented in Figure 6. These articles have made significant contributions to the academic knowledge of the field and have had transformative effects on the literature.

Figure 6. Most Globally Cited Documents
Source: Biblioshiny, based on Web of Science (WoS) and Scopus dataset

In particular, Dwivedi Y. (2023), published in the *International Journal of Information Management,* stands out with 900 citations, while the article by Hao F. (2020) in the *International Journal of Hospitality Management* ranks second with 337 citations. In addition, other studies such as Buhalis D. (2023) and Gössling S. (2021) have also made significant impacts in the field of tourism and sustainability. According to this data, these highly cited documents are the key studies that have shaped the field of digital marketing and tourism marketing.

Visualizations are employed in bibliometric analysis to determine the most popular research subjects and keywords in a certain field (Van Eck & Walt-

man, 2010). The key findings of scholarly research in the areas of digital marketing and tourism marketing, as well as the significance of these findings, are frequently displayed using word clouds or tree-emaps. Among the most commonly used phrases in the examined literature, keywords like "tourism" (117), "digital marketing" (78), "social media" (49), "marketing" (44) and "digital" (28) are noteworthy in this context. Furthermore, significant frequency was seen for phrases such as "covid-19" (26), "tourism marketing" (25) and "sustainable tourism" (15) (Figure 7 and Figure 8). These phrases' size and visual prominence indicate how frequently they are used in the literature and how significant these subjects are to the field.

Figure 7. Tree-Map

Figure 8. World Cloud

The prominence of terms such as "tourism" and "digital marketing" in the word cloud in Figure 8 shows that these concepts play a central role in digital marketing and tourism marketing literature. In addition, terms such as "sustainable tourism" and "digitalization" reveal that sustainability and digitalization are also among the main focal points of academic studies in this field. These keywords clearly reflect the research trends and key topics of the field.
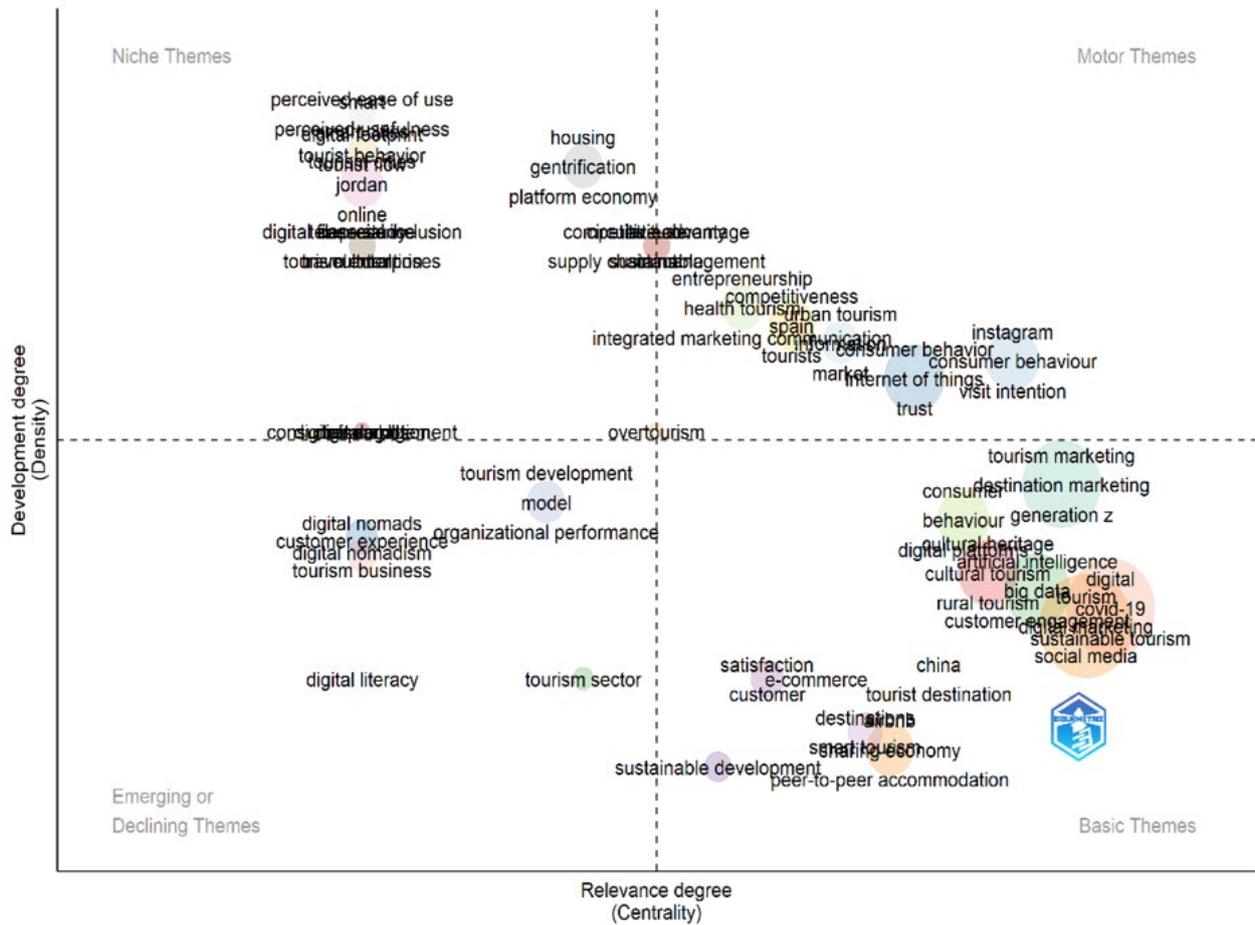
Figure 9. Thematic Map
Source: Biblioshiny, based on WoS and Scopus dataset

The analyses were conducted using methods such as thematic mapping and factorial analysis. Thematic map analysis has been employed as a powerful tool for understanding current and potential research topics within the context of the tourism sector and digitalization. In this analysis, core themes such as "entrepreneurship," "competition," "internet," "consumer behavior," and "social media" represent the most discussed and central topics in the field. Particularly, themes like "sustainable tourism" and "digital transformation" hold critical importance at both academic and sectoral levels.

Additionally, niche themes such as "perceived benefits" and "online behavior" examine the impact of digital platforms on user perceptions, while "digital literacy" stands out as a less explored but potential research area for the future. Factorial analysis has been utilized to visualize the relationships between themes by creating a conceptual structure map. As a result of this analysis, factor groups such as "digitalization, technology, and management" and "tourism marketing, digital platforms, and consumer behavior" emerged. For instance, terms like "cultural heritage," "augmented reality," "metaverse," and "sustainability" represent themes related to experiential tourism, cultural heritage, and technology. These

methods have enabled a deeper analysis of the theories and methods used in studies, contributing to identifying thematic gaps in the literature and pointing out future research opportunities.

This so-called thematic map is a powerful analysis tool for understanding current and potential research topics in the context of both the tourism sector and digitalization. While motor themes represent existing focal points, niche and emerging themes provide researchers with opportunities for new ideas and original contributions. In particular, themes such as "sustainable tourism" and "digital transformation" are of critical importance both academically and industry-wide.

Motor themes have both a high degree of centrality and a high degree of development. Terms positioned in the motor theme area are described as the most important and most researched topics in the field. According to the map, entrepreneurship, competitiveness, the internet, consumer behavior, and social media, especially Instagram, are given importance. Technology-based themes such as "digital transformation," "artificial intelligence," and "big data" emphasize the critical role of tourism in the digitalization process.

Niche themes may have been intensively researched but may not have had a very broad impact in the overall context. They are usually related to a specific sub-field or specialization. While terms such as "perceived usefulness" and "online behavior" focus on the impact of online platforms and digital services on user perception and behavior, terms such as "Jordan," "housing," "gentrification," etc. focus on regional or local issues.

Key themes represent important issues in the field but are not sufficiently elaborated or explored in depth in the literature. Popular topics such as sustainability and social media, with titles such as "sustainable tourism" and "social media," are becoming increasingly important for both consumers and businesses. In addition, themes such as "customer satisfaction," "peer-to-peer accommodation," tourist satisfaction, and the impact of platforms such as

AirBnB are still widely analyzed. At the same time, with terms such as "smart tourism" and "e-commerce" in this theme, it can be stated that smart tourism and e-commerce applications are potential research areas.

Decentralized and underdeveloped Themes may be topics that are either emerging or losing importance in the field. Terms in this theme may be areas where there is little research interest but potentially offer new opportunities. "Digital literacy" and "digital literacy" in this area are important in a world where technology is rapidly evolving but have not yet been researched in depth in the tourism context. The terms "tourism business" and "digital nomadism" suggest that digital nomadism and new business models in tourism could potentially be on the rise.
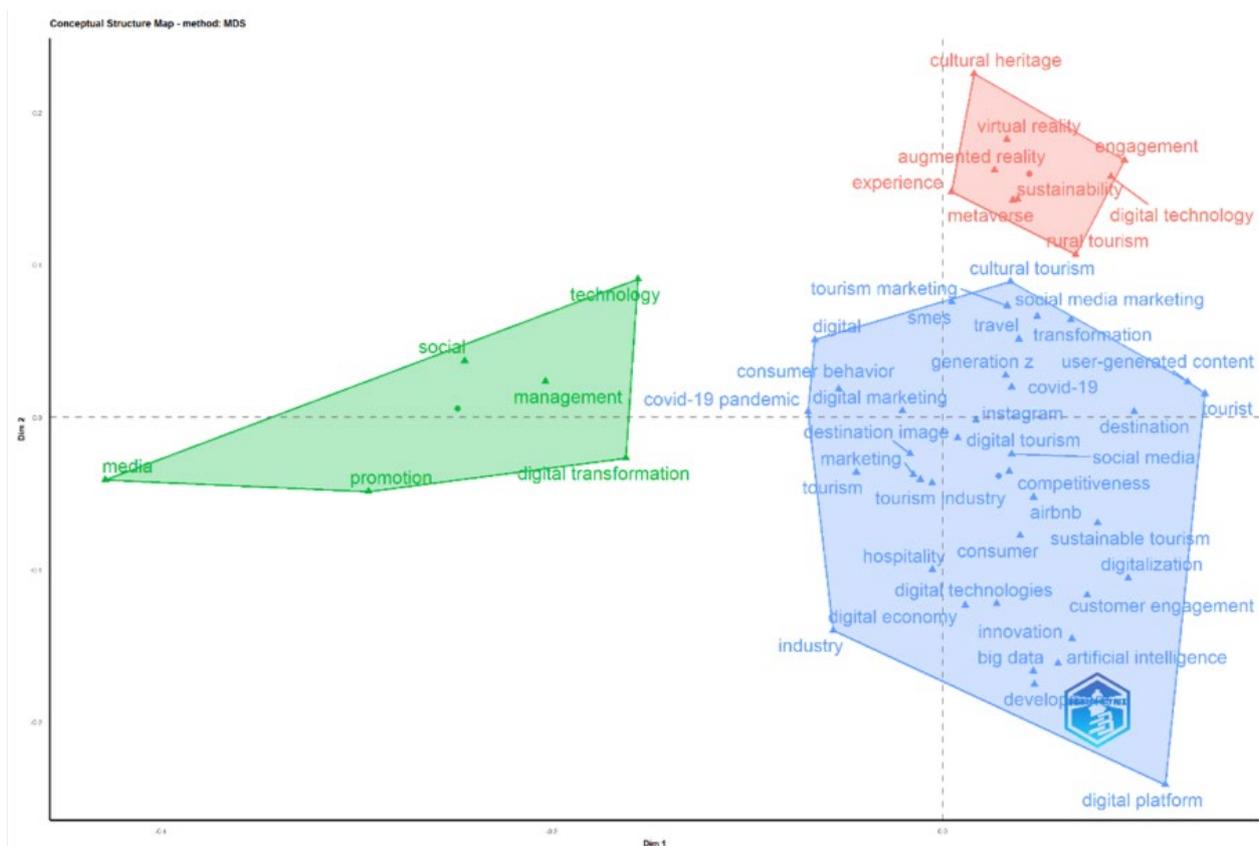

Figure 10. Conceptual Structure Map

Factorial Analysis

This visualization is *a conceptual structure map* created using multidimensional scaling (MDS). This map is used to visualize the relationships and factor groupings of concepts in a particular research area. The different colored areas and clustered concepts on the map show the similarities or differences of the themes, while the dimensions on the map express the relationship between the themes.

Terms like "digital transformation," "technology," "management," "social," "promotion," and "media" are used in the first factor group (green cluster) to refer to the themes of "digitalization, technology, and management." The terms "tourism marketing," "consumer behavior," "social media," "sustainable tourism," "Generation Z," "digital tourism," "hospitality," and "innovation" are employed in the second factor group (blue cluster) to concentrate on a

broad thematic framework, such as "tourism marketing, digital platforms, and customer behavior."

The terms "cultural heritage," "virtual reality," "augmented reality," "metaverse," "engagement," "experience," and "sustainability" are used in the third factor group (red cluster) to refer to concerns involving experience, culture, and technology, such as "experiential tourism, cultural heritage, and virtual reality."

The x-axis, which focuses on business and technology transformation, customer behavior, and experiential tourism, can be said to represent the role of digitalization in social, cultural, and business activities. While experiential and cultural challenges, as well as technical and sectoral transformation, are represented, the themes on the y-axis tend to be strategic and applied methods.

Conclusion and Discussion

This study comprehensively examines the academic production and the development of research in the fields of digital marketing and tourism marketing. Notably, there has been a significant increase in research in these areas between 2020 and 2024. Publications from 2024 account for 28.35% of the total academic production, indicating a rapid rise in academic interest in digital marketing and tourism marketing during this period. This increase highlights the growing research into the impacts of digitalization on the tourism sector and the accelerating effect of the COVID-19 pandemic on this process. The greater importance of digital marketing strategies in the post-pandemic period clearly shows the increasing emphasis on digitalization within the sector.

The findings of the study reveal that the literature on digital marketing and tourism marketing is growing rapidly, with a particular focus on key topics such as "digitalization" and "sustainability." Key terms frequently encountered in the literature include "tourism," "digital marketing," "social media," and post-pandemic research, which are of critical importance in understanding the transformation of digital marketing practices in the tourism sector and developing future strategies for the industry.

The study also examines scientific collaborations in digital marketing and tourism marketing. China stands out as the country making the largest contribution in these areas, while countries like Spain, the United Kingdom, and the United States show high levels of international collaboration. This finding emphasizes the need for more global cooperation and interaction in digital marketing and tourism marketing research. Increasing such collaborations will expand the scope of research and help better understand sectoral developments.

The findings also indicate that digital marketing strategies gained significant importance after the pandemic, with research in this area typically focusing on core topics such as social media, digital advertising, targeted marketing, and consumer behavior. The relationship between digital marketing and sustainable tourism practices has also been highlighted, emphasizing the need for further integration of these two fields. In this regard, research on how sustainable tourism and digital marketing strategies can be integrated holds significant importance both academically and sectorally.

In light of these findings, there is a need to adopt more holistic approaches to digital marketing and tourism marketing. For example, the relationship between digitalization and sustainable tourism could be analyzed in more detail, and the potential impacts of technologies such as artificial intelligence, augmented reality, and blockchain could be explored in this context. Additionally, critical issues such as the impact of social media algorithms on tourist behavior are important research areas to be studied in the post-pandemic period. The widespread adoption of open science practices that encourage data sharing among researchers can enhance contributions to the literature. Evaluating locally conducted research within a global context would provide a broader perspective.

This study has certain limitations. The research was limited to the Web of Science and Scopus databases, and studies from other databases were not analyzed. Similarly, only English-language publications were reviewed, and multilingual studies in the literature were overlooked. Moreover, the analysis period was set to 2020-2024, whereas studies covering a longer time frame could evaluate past and future trends more comprehensively.

In conclusion, academic development in digital marketing and tourism marketing is rapidly increasing, and these fields are expected to integrate more with concepts such as digital technologies, sustainability, data analytics, and environmental impact in the future. Future research will further deepen the scientific knowledge base by examining how digital marketing strategies are integrated with new digital technologies and how these strategies contribute to sustainable tourism practices. This will enhance the understanding of the role of digital marketing practices in the tourism sector and help solidify future strategies on a more robust foundation.

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