

Digital tourism: A bibliometric study of trends and research

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ABSTRACT

Keywords:

Bibliometric analysis,
Digitalization,
Digital Tourism,
Scopus, Tourism,
VOSviewer.

Digital advances are profoundly impacting consumer behavior and industry dynamics, and the tourism sector stands to benefit significantly from these advances. This paper conducts a comprehensive bibliometric analysis focusing on the convergence of tourism and digitalization. The study starts with the keywords 'tourism' and 'digitalization' as the fundamental pillars of the study. With the help of a quantitative bibliometric analysis methodology, the current research seeks to delineate the prevalence and trajectory of these concepts within the scholarly literature. Using data from academic studies published between 2000 and 2024 and archived in the SCOPUS database, this study examines the development and prominence of relevant themes. The analysis identified 1437 studies. The number of studies conducted, especially after 2019, has increased significantly. When the keywords are analyzed, the top three are 'smart tourism,' 'big data,' and 'blockchain,' respectively. When the link strength of the authors is examined, Chulmo Koo is in the first place, Dimitrios Buhalis is the most cited author, and among the journals, 'Electronic Markets,' 'Tourism Review,' and 'Sustainability' are leading, respectively. In this context, some theoretical and practical suggestions are presented.

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1. Introduction

Digital tourism enriches the tourist experience by blending the real world with digital content using digital technologies for the real world (Adeola & Evans, 2019). Digital technologies have caused a shift in the contribution of the tourism industry in recent years. The tourism industry was one of the first sectors to almost fully utilize information and communication technology for business purposes. In 1946, the electromechanical reservation system was initiated by American Airlines (Çakır, 2020), and then this digital transformation was continued by hotels, restaurants, and travel agencies in the 1950s (Doğantan, 2020).


The phenomenon of digital transformation, which has been ongoing since the 1950s, fundamentally reshapes social paradigms. Its manifestations can be seen in various sectors, including tourism. In particular, smart homes equipped with sensors connected via Internet of Things (IoT) platforms exemplify this trend, which has expanded to include a wide range of appliances and devices, from thermostats to laptops, transforming consumer experiences and industry landscapes. The inception of the IoT in 1999 by Kevin Ashton signaled an unforeseen revolution in

business operations, taking the use and connectivity of the Internet to an unprecedented level (Ozdemir et al., 2023).


The onset of the fourth industrial revolution, commonly referred to as Industry 4.0 (I4.0), has catalyzed transformative changes in various sectors, including tourism. According to Pencarelli (2020), I4.0, which originated in Germany, is intricately intertwined with IoT, information and communication technologies (ICT), and organizational integration systems. This paradigm promotes higher quality standards and increased productivity and enables companies to quickly adapt to changing consumer demands and preferences. Pencarelli (2020) conceptualizes Tourism 4.0 as an emerging ecosystem characterized by high-tech service production and based on the six core principles of I4.0: collaboration, virtualization, decentralization, real-time data analytics, service orientation and modularity. While the proliferation of technologies such as robotics, AI, and service automation (RAISA) offers multiple benefits, it also requires careful adaptation to mitigate potential disruptions (Dülğaroğlu, 2021; Zeqiri et al., 2020).

Technological advances have not only revolutionized consumer behavior, but also facilitated the entry of new players into the tourism sector amidst the fast-growing

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digitalization trend (Jansson, 2020). Innovations in information and communication technologies, coupled with software developments, have led to the widespread adoption of tools such as AI, VR and AR, which have significantly improved service delivery in the sector (Boas, 2013; Ivanov & Webster, 2017; Ozdemir et al., 2023). These advances have proven to be instrumental in strengthening the tourism sector against adversities, including natural disasters and pandemics, by ensuring resilience and mitigating disruptions to human mobility.

Despite the significant impact of the COVID-19 pandemic on the tourism sector, it has remained one of the largest sectors worldwide, accounting for a substantial share of the economy (Statista, 2023). Moreover, the surge in scholarly interest surrounding digitalization in tourism, particularly during the pandemic period, underscores its burgeoning importance, necessitating a comprehensive literature review and deeper scholarly engagement (Akhtar et al., 2021; Alrawadieh et al., 2021; Gössling, 2020; Iatsyshyn et al., 2020; Kazandzhieva & Santana, 2019; Pappas et al., 2021; Prokopenko et al., 2019; Talwar et al., 2023; Wei & Ullah, 2022).

In light of the evolving discourse on digital tourism, this study employs a meticulous bibliometric analysis to shed light on the key publications, the influential scholars, and the emerging trends in the field. The bibliometric analysis aims to provide insights into the evolving field, identifying the main themes, influential authors, and leading journals, contributing to a nuanced understanding of this dynamic field. Through this methodological approach, the study aims to identify research gaps and delineate avenues for future inquiry, thereby contributing to the ongoing scholarly discourse on digital tourism.

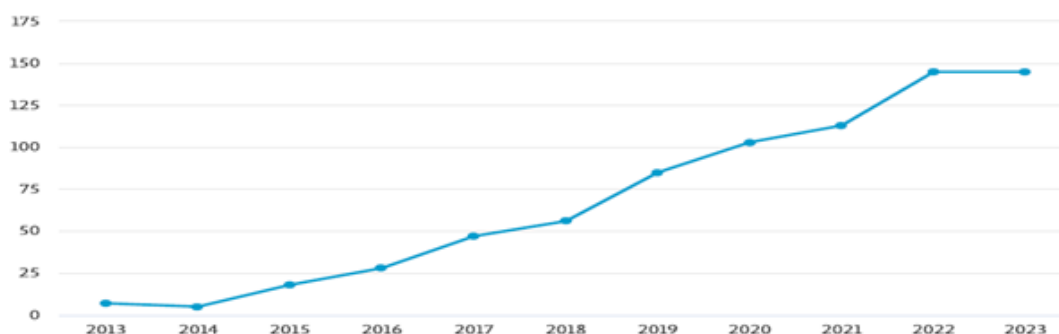
The primary objective of the current study is to elucidate the historical underpinnings, current status, and potential trajectories of the intersection between tourism and digitalization. Through comprehensive analysis, the research aims to reveal the frequency and nature of discussions surrounding the concepts of tourism and digitalization, as well as to identify the most prominent researchers in the field. In particular, the Turkish national literature shows a parallel discourse on the relationship

between tourism and digitalization, alongside in-depth studies on the impact of digitalization and smart technologies in the tourism sector. These studies, which often employ bibliometric analysis, contribute to a broader understanding of the impact of digitalization on tourism (Balyalı & İlhan, 2023; Bozkurt et al., 2022; Çubukçu & Topçuoğlu, 2023; Çuhadar et al., 2022). The present study adds to this body of research by conducting a quantitative analysis of academic publications in the SCOPUS database from 2004 to the present, with the aim of providing a comprehensive overview and roadmap of the subject matter. This bibliometric study examines the dynamic intersection of tourism and digitalization, shedding light on its evolving landscape, scholarly contributions, and implications for academia. In an era characterized by rapid technological advancements and changing consumer behavior, understanding the nexus between tourism and digitalization is imperative for stakeholders in various fields. By identifying key areas of focus and highlighting gaps in the existing literature, this study provides a roadmap for future research efforts. In addition, the implications derived from this analysis can inform strategic decision-making within the tourism sector.

2. Conceptual Framework

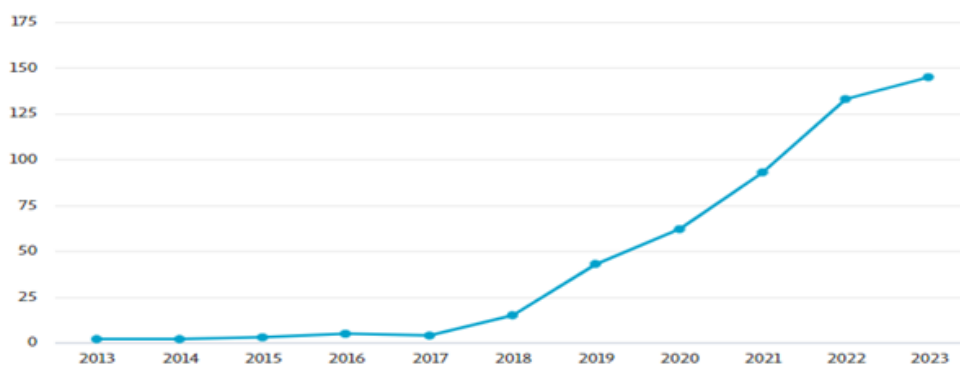
Tourism and Digitalization

The second half of the twentieth century and the early years of the new millennium have witnessed a rapid surge in technological advances, propelling humanity into an era marked by digitalization and transformative technological breakthroughs. This phenomenon, characterized by its multifaceted implications and the rapid globalization of innovation, underscores the evolving landscape of human endeavor, ushering in new imperatives and capabilities (Popkova & Gulzat, 2020). Kulakoğlu Dilek et al. (2018) warn that failure to keep pace with these rapid technological developments can lead to business obsolescence. Within this milieu, the tourism sector is emerging as a focal point of impact, with businesses striving to achieve a competitive position through the use of digital elements (Bănescu et al., 2021; Molz, 2012; Sigala & Chalkiti, 2014).



Graphic 1. Distribution of Academic Publications on Smart Tourism by Years

Source: Authors



Graphic 2. Distribution of academic publications on tourism and digitalization by years

Source: Authors

While the discourse surrounding this transformation often refers to the broader context of Industry 4.0 (I4.0), which overlaps with numerous other fields, there is a parallel discourse that describes the nuances of the “digital revolution/transformation in tourism” (Ozdemir et al., 2023; Pencarelli, 2020; Zeqiri et al., 2020). In addition, a more focused perspective within tourism studies addresses the concepts of “smart tourism/e-tourism” (Boes et al., 2015; Buhalis, 2019; Gretzel et al., 2015; Li et al., 2017). Smart tourism integrates information and communication technologies into the destination to enrich the tourist experience. The concept of e-tourism, on the other hand, focuses on facilitating electronic transactions by making information sharing, interaction, and information available through the ‘web at the corporate level (Doğantan, 2020). As illustrated in Graphic 1, research on “smart tourism” has become increasingly important over the last decade. Similarly, Graphic 2 illustrates the increasing number of publications containing the keywords “tourism and digitalization”. These graphical representations highlight the burgeoning academic interest in digitalization and smart tourism within the field of tourism, especially since the beginning of the 2010s (Asif & Fazel, 2024).

When the studies dealing with the paradigm shift in digital tourism are examined in detail, Buhalis and Deimezi (2004) argue that e-tourism in Greece is still in its early stages and not yet fully understood, necessitating a re-evaluation of e-tourism strategies to ensure competitiveness on the global stage. Their study, a seminal contribution to the field of digital tourism, offers insights and recommendations for the future trajectory of e-tourism in its formative years and serves as a foundational reference for subsequent scholars exploring the digitalization of tourism.

Describing a paradigm shift in digital tourism triggered by the emergence of digital tools, Happ and Ivancsó-Horváth (2018) present a comprehensive model that includes external and internal factors influencing digital tourism and outlines organizational activities ripe for digital integration. Proposing a marketing-centric approach, their model encompasses various facets of tourism marketing, including research, target demographics, and the 7Ps

framework, and advocates the formulation of a long-term digital tourism strategy to optimize the use of digital resources across the tourism market.

In response to the COVID19 pandemic, Akhtar et al. (2021) highlight the emergence of a new academic field dedicated to the digital future of the tourism sector, introducing clusters such as 'virtual tourism', 'virtual reality tourism' and 'augmented reality'. They propose virtual tourism as a viable alternative to intensive tourism activities, potentially reshaping the future landscape of the industry.

Zeqiri et al. (2020) examines the impact of Industry 4.0 technologies on the hospitality industry, focusing on mitigating sectoral challenges through technological advancements. Their findings highlight cost reductions in accommodation, travel, and tour operations, as well as increased convenience for tourists through online reservations and information services.

When bibliometric studies on digital tourism are analyzed, Kalia et al. (2022) conducted a bibliometric analysis of 827 articles on digital tourism. They identified the lack of scientific interest and cooperation in regions such as Russia and Africa. Asif and Fazel (2024) analyzed 575 articles in Scopus and Web of Science databases between 2002 and 2023. They found that Chinese researchers published the most in digital tourism, and among the journals, ‘Current Issues in Tourism’ and ‘Information Technology and Tourism’ took the lead. Also, Li et al. (2024) found that Chinese researchers have significantly contributed to digital tourism studies in their bibliometric analysis of 646 SSCI articles from the Web of Science. Roziqin et al. (2023) analyzed 102 publications between 2001 and 2021 in the SCOPUS database. Similarly, they found that Chinese researchers published the most publications. Spain and the USA came in second place.

In summary, these studies highlight the profound impact that digitalization has had on the tourism sector over the past two decades. As technological advances continue to reshape industry paradigms, the need for digital transformation in the tourism sector is becoming increasingly apparent. To ensure business sustainability,

enhance tourist satisfaction and meet evolving demands, the tourism sector must adapt to digital transformations. Consequently, a concerted effort to monitor academic research and integrate findings into practice is imperative to effectively navigate the evolving digital landscape of the tourism industry.

3. Method

Because this paper aimed to view openness as a living idea, it adopted bibliometric analysis to systematically investigate changing research trends and patterns in developing the concept of openness. The methodology is described in detail in the sub-headings of this section.

Data collection and analysis

In bibliometric analysis research, the selection of an appropriate database is crucial to ensure the quality of the research (Sánchez et al., 2017). The SCOPUS database, which is widely used in social science research, was selected for its reliability, comprehensiveness, and relevance to the field of tourism. To create a research corpus, we employed search strings related to openness in digital tourism (see Table 1). Based on the preferred reporting items for bibliometric analysis PRISMA protocol (Asif & Fazel, 2024), the final research corpus comprised 1437 journal articles, conference papers, book chapters, editorials, and conference reviews. The VOSviewer program was used for data analysis due to its effectiveness in conceptual understanding and data visualization (Dirik et al., 2023). A search was carried out on 10 July 2024. Studies written in other languages except for English are excluded. This targeted approach aimed to streamline the data set, exclude irrelevant publications and ensure the integrity of the scope and findings of the study. Publications that were still in progress at the time of the search were excluded from the analysis. The analysis period (2000–2024) was not predetermined but emerged as a result of constructing the research corpus with relevant studies that fulfilled the inclusion criteria.

Table 1 Search string for PRISMA protocol

Search String	TITLE-ABS-KEY (tourism AND digitalization OR industry 4.0 OR tourism 4.0 OR e-tourism OR smart AND tourism OR cyber AND tourism)
Database	Scopus
Identification	A total of 1457 documents were identified.
Screening	Irrelevant documents were excluded (n=20)
Included	A total of 1437 records were added into final corpus.

Source: Authors

Bibliometric analysis

In recent years, bibliometric analysis has emerged as an important methodological approach in tourism and business studies. This surge in importance is due to the effectiveness of bibliometric software tools such as VOSviewer and Gephi, which use statistical data to interface with prominent data repositories such as Web of Science and Scopus (Donthu et al., 2021). Bibliometric

analysis, which has been extensively discussed by numerous scholars (Åström et al., 2009; Donthu et al., 2021; Ellegaard & Wallin, 2015; Gauthier, 1998; McBurney & Novak, 2002), transcends disciplinary boundaries and finds relevance not only in the fields of tourism and business administration but also serves as a versatile means to process large datasets, provide researchers with comprehensive insights, identify gaps in the scholarly discourse, and illuminate new research avenues (Donthu et al., 2021).

The present study uses bibliometric techniques to analyze scholarly publications related to tourism and digitization, thus providing a holistic understanding of the historical evolution, contemporary trends, and future prospects of the topic. In order to achieve this goal, various bibliometric methods were employed, including co-authorship analysis, co-occurrence analysis, bibliographic coupling and co-citation analysis.

4. Findings

Distribution of documents by year

The number of academic studies on tourism and digitalization continues to increase in parallel with the technological developments experienced in the twenty-first century. As a result of the SCOPUS search conducted with the keywords determined in the light of the data obtained from the literature, 1437 documents were reached. Most of the papers were published in 2023, with 257 pieces. In the first half of 2024, which we are in, 148 papers have been published by the time the current research is conducted. The following table 2 presents the list of documents published in the last ten years:

Table 2 Number of documents by year (last 10 years)

Year	Number of documents
2024 (first half of the year)	148
2023	257
2022	234
2021	199
2020	167
2019	128
2018	59
2017	51
2016	26
2015	34

Source: Authors

Frequency of keywords

The current research, in which the topic of tourism and digitalization is examined within the framework of the documents contained in the SCOPUS database, has identified a total of 3500 keywords in 1437 scanned documents. Some of the most frequently preferred keywords are: “smart tourism”, “tourism”, “e-tourism”, “blockchain”, “sustainability”, “big data”, “industry 4.0”, “artificial intelligence”, “smart city” and “tourism industry”. The keywords preferred by the authors provide a preview for readers who want to have information about

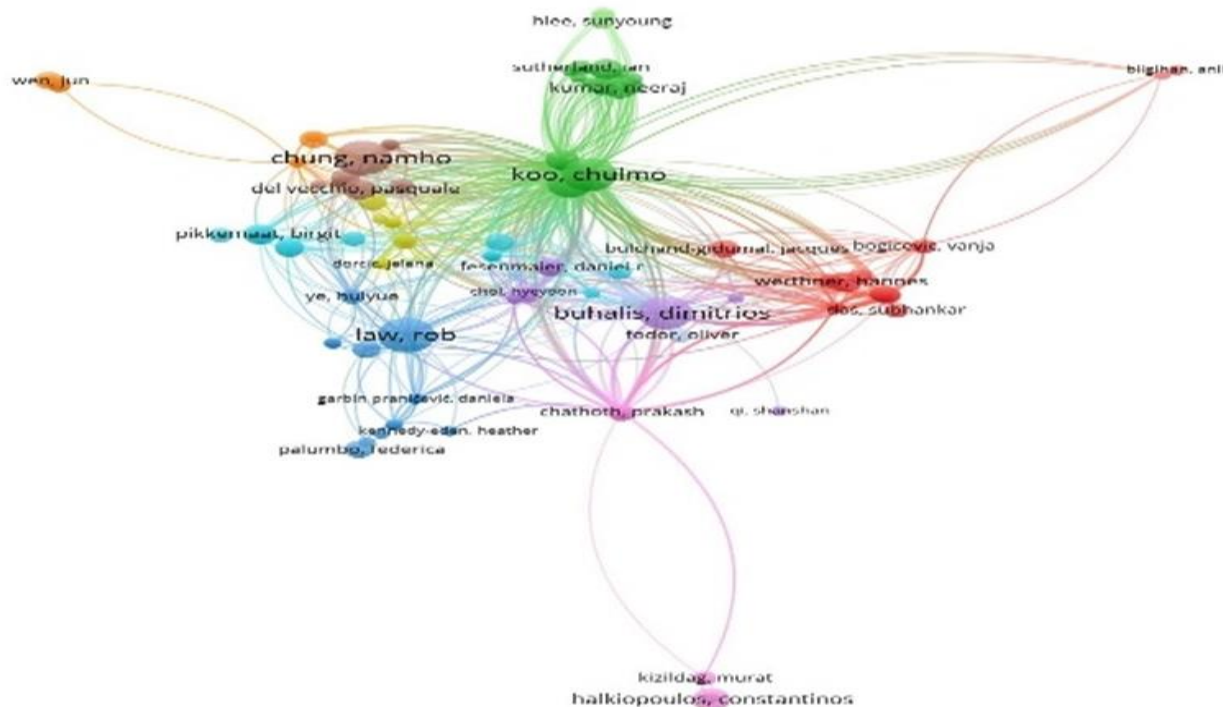


Figure 3 Most frequently cited authors

Source: Authors

with other keywords at least five times and the links to each other. The same results were examined with the overlay visualization feature of the VosViewer program, which showed that keywords such as mobile technology, e-tourism, semantic web, e-commerce, and internet were preferred more often in the 2010s. By the 2020s, it has become clear that keywords such as smart tourism, augmented reality, industry 4.0, blockchain, digital technology, and artificial intelligence are preferred.

Co-authorship of authors

With this analysis, relationships and collaborations between authors in academic studies are examined. The analysis reveals the scientific associations in the relevant research area. It helps us to understand the influential authors and the intensity of collaboration in a particular research area. In the analysis, which included authors who had at least 1 publication and received at least 1 citation, 65 authors with links between them were found (Figure 2). The total link strength determines the importance of the corresponding author in the network. The authors with the highest link strength are Chulmo Koo (25 links), Namho Chung (24 links), Neeraj Kumar (22 links), Rob Law (22 links) and Dimitrios Buhalis (21 links). The authors with the most citations are Dimitrios Buhalis (1839 citations), Ulrike Gretzel (1515 citations), Marianna Sigala (1317 citations), Zheng Xiang (1293 citations) and Chulmo Koo (1212 citations).

Citations of authors

The citation analysis of authors is an important indicator that shows how many times the authors included in a given data set have been cited. In this analysis, it is essential to identify authors who have significant contributions in the field of research and are frequently cited by other researchers. As a result of the analysis, Dimitrios Buhalis is the author who is at the top of the list with a total of 10 documents and 1839 citations. Ulrike Gretzel - with 7 documents and 1515 citations- Marianna Sigala - with 2 documents and 1317 citations- are among most cited authors. Ulrike Gretzel (143 total link strength), Dimitrios Buhalis (138 total link strength) and Chulmo Koo (136 total link strength) are the authors with the highest scores in total connection strength (Figure 3).

Citations of documents

As in the author citation analysis, the purpose of the citation analysis of documents is to reveal important documents in the relevant field of study. The only difference of the citation analysis of documents is to determine the academic studies and not the authors. According to the results of the analysis conducted in this context, Gretzel et al. (2015) is in the first place of the list with 1117 citations. Other important studies are Wen et al. (2021) with 528 citations, Bodkhe et al. (2020) with 468 citations, Buhalis (2019) with 427 citations (Figure 4).

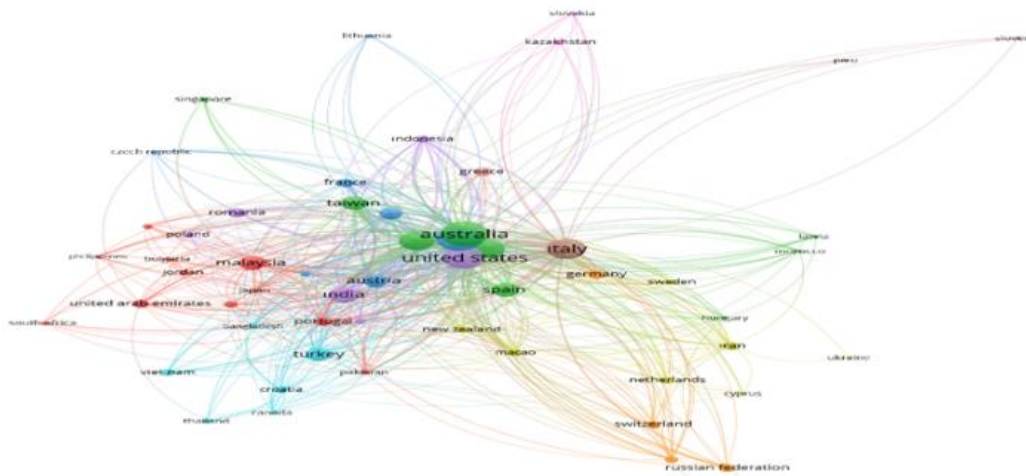


Figure 6 Most frequently cited countries

Source: Authors

with numerous documents and citations such as Dimitrios Buhalis, Rob Low, Chulmo Koo are included in the list. However, it becomes possible to examine authors such as Namho Chung (11 documents, 94 citations, 4363 link power), Birgit Pikkemaat (4 documents, 147 citations, 5402 link power), Ashraf Muhammad Fauzi and Walton

Wider (2 documents, 8 citations, 4214 link power), who have received fewer citations compared to others thanks to bibliographic coupling of authors/documents analysis. Thanks to the total link strength of bibliographic coupling, these authors/documents are able to attract attention of the researchers (Figure 7).

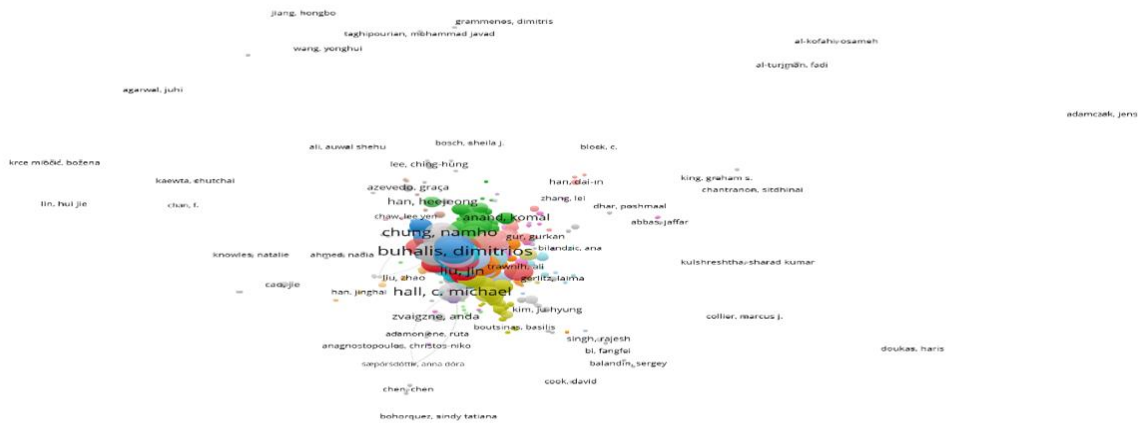


Figure 7 Bibliographic coupling of authors

Source: Authors

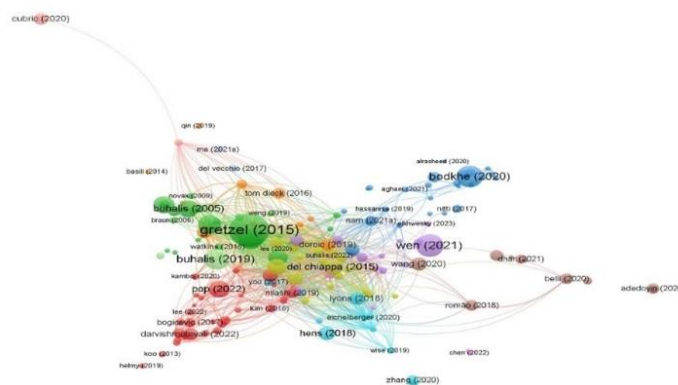


Figure 8 Bibliographic coupling of documents

Source: Authors

similar topics. The thickness of the lines depicting the

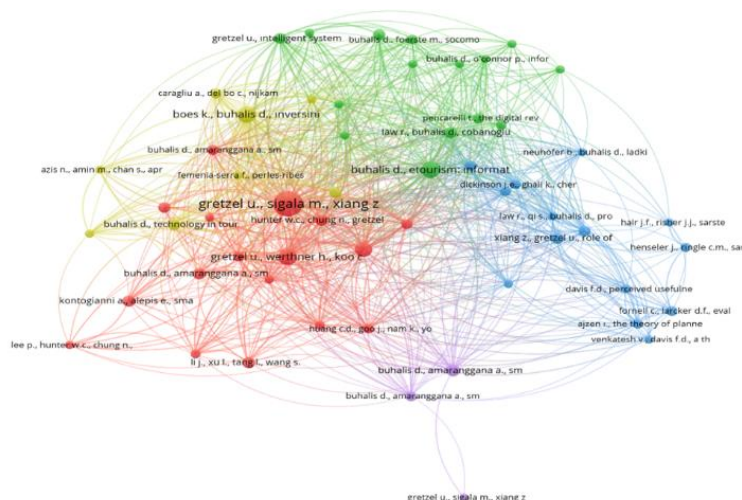


Figure 9 Links between co-cited documents

Source: Authors

Co-citation of cited references and authors

Bibliographic coupling analysis identifies the common references of two different authors in their works. Co-citation of cited reference analysis identifies reference pairs that are cited in common by a third source. If sources X and Y are cited in the same reference list by other third sources, these two sources are considered to be related authors even if they have never cited each other. The result of the analysis shows the reference pairs shown in the same list by a third author (Figure 9). In line with the data obtained, figure 8 was obtained. The reference pairs that were added to the reference lists at least 10 times were grouped into five different clusters. Each color cluster indicates that the references in the relevant research area are documents that have been studied in common or

relationship between the references is related to the frequency of common references. In this context, the references that are most frequently co-referenced with a second reference in the relevant research area are as follows: Gretzel, U., Sigala, M., Xiang, Z. & Koo, C. (2015); Gretzel, U., Werthner, H., Koo, C., & Lamsfus, C. (2015); Boes, K., Buhalis, D., & Inversini, A. (2015); Buhalis, D & Deimezi, O. (2004) and Li, Y., Hu, C., Huang, C. & Duan, L. (2017). Figure 9 shows the links between these documents.

As with reference pairs, the VosViewer program offers the possibility of analysis to identify co-authors and possibly related authors (Figure 10). As a result of the analysis of co-citation of cited authors, the authors who were cited at least 50 times and formed a co-authorship link with a

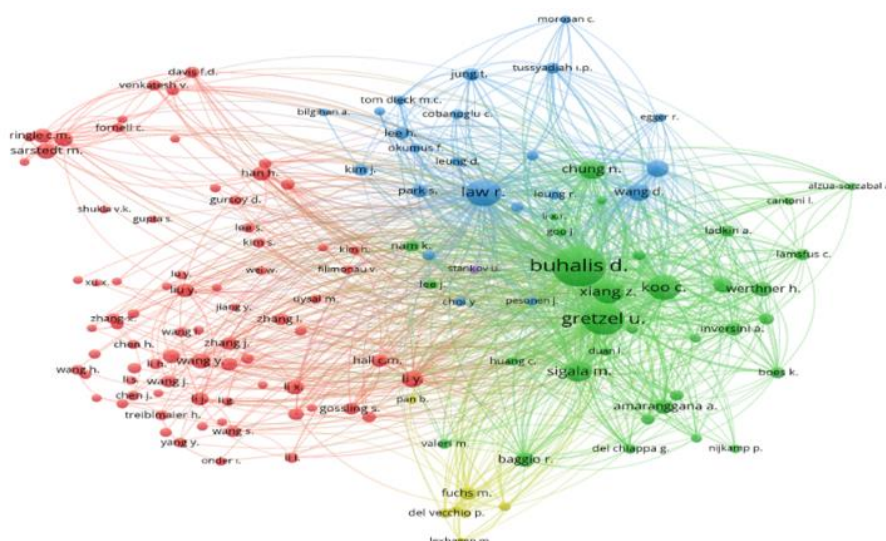


Figure 10 Links between co-cited authors

Source: Authors

second author and the number of times they were cited are as follows: Dimitrios Buhalis (1326 citations); Ulrike Gretzel (825 citations); Rob Low (589 citations); Chulmo Koo (518 citations) and Zhang Xiang (457 citations).

5. Conclusion, Implications and Limitations

This article's purpose was to unleash the trends and future research directions in digital tourism through bibliometric analysis. In this study, a bibliometric analysis of academic publications related to tourism and digitalization was conducted, covering the period between 2000 and 2024. Through a quantitative analysis of 1437 academic studies from the SCOPUS database, the study sheds light on the growing scholarly interest in the convergence of tourism and digitalization, especially in recent years.

Studies on digital tourism show a significant increase since 2019. The COVID-19 process and subsequent developments (quarantine, restrictions, travel bans, etc.) played an important role in this increase. The analyses show that the highest number of publications was reached in 2023. However, the first six months of 2024 were taken into consideration. When the distribution by years is analysed, it is predicted that the number of publications in 2024 will increase further.

In the analysis of keywords, Artificial intelligence, smart city, COVID-19, IoT, sustainable tourism, digitalization, augmented reality, machine learning, and smart destinations are preferred. According to the future reflection of the COVID-19 pandemic, the number of studies will decrease. However, other fields of study will progress by increasing further.

We observed Chulmo Koo, Namho Chung, and Neeraj Kumar as authors with the highest co-authorship of authors, respectively. The work of Chulmo Koo centers around smart tourism and information communication technologies in tourism, respectively. Namho Chung has focused on tourist information systems like mobile tour information, tourist movement patterns, near-field communication, augmented reality, and online tourism shopping. Neeraj Kumar also discussed smart tourism, blockchains, IoT, and COVID-19.

On examining the authors' citations, we observed that the three primary authors, Professor Dimitrios Buhalis, Dr. Ulrike Gretzel, and Professor Marianna Sigala, are well-established tourism scholars and practitioners who have been associated with various influential institutions throughout their careers.

We observed that influential journals are "Electronic Markets," "Tourism Review," "Sustainability," "Information Technology and Tourism," and "The International Journal of Contemporary Hospitality Management." Some bibliometric studies have found different results (Asif & Fazel, 2024; Roziqin et al., 2023). This is because these studies only analyse journals,

whereas, in our research, publications other than journals are also considered.

A country-by-country analysis identifies China, India and Malaysia as critical contributors to research in this area, positioning these countries as leaders in digitalizing the tourism sector. Asif and Fazel (2024), Li et al. (2024), and Roziqin et al. (2023) also found that Chinese researchers are at the forefront of digital tourism studies

As a result, the study provides a comprehensive overview of the evolving discourse on tourism and digitalization, from historical antecedents to prospects, based on quantitative empirical evidence. The findings underscore the burgeoning importance of digitalization in shaping the tourism landscape and argue for continued scholarly investigation of this transformative phenomenon.

An analysis of the distribution of scientific publications over the years shows a consistent upward trend since 2019, coinciding with the integration of digital and technological advances in various facets of our lives. In particular, the number of scientific works dealing with digitalization in tourism reached its peak in 2023. This increase can be attributed to concerted efforts within the tourism sector to strengthen competitiveness through the strategic exploitation of digitalization opportunities. This proliferation underlines the accelerating momentum of digitalization within the tourism industry, which is exerting a transformative influence across its multiple dimensions. Indeed, digital technologies now permeate tourism processes, including itinerary planning, reservations, information gathering, and experience sharing, creating both new opportunities and challenges for tourism businesses.

Theoretical implications

Based on the results of this study, a number of implications for academia and the tourism industry have been developed. The current study, which focuses on the interplay between tourism and digitalization, lays the groundwork for future research efforts in this emerging field. By highlighting key trends and identifying prominent research directions, this study provides valuable insights for subsequent research. By further exploring the theoretical foundations of this integration, scholars may develop frameworks that clarify the relationship between technology advancements, hospitality practices, and efficient management techniques. This underscores the importance of scholars engaging in more thorough theoretical research, which forms a strong foundation for comprehending and navigating the evolving landscape of technology-driven tourism. Of particular note is the keyword analysis, which serves as a valuable resource for researchers considering investigations into specific facets of tourism and digitalization. For example, future studies could explore more specialized topics such as the intersection of tourism with AI, service robots or other emerging technologies.

The results highlight the significant potential of digital in tourism for improving the competitiveness and sustainability of the sector. Future research efforts in this area can serve to clarify the nuanced effects of digitalization on different facets of the industry and facilitate the development of novel policies and strategies to navigate this evolving landscape. Furthermore, examining the impact of digitalization on the sustainability of the tourism sector, as well as its effects on entrepreneurship, innovation activities and competitive dynamics, can provide valuable insights for future studies. By addressing these crucial issues, researchers can promote a deeper understanding of the digitalization process within the tourism sector and devise more effective mechanisms to manage and harness its transformative potential.

Practical implications

This study presents some practical implications for the tourism industry. Digital tourism articles are predicted to increase over the years, and China will make further progress in digitalization. Tourism professionals must prioritize enrolling in professional training programs to gain the essential skills and knowledge to adapt to and capitalize on the ever-evolving digital technology landscape. It is recommended that public and private sector managers seriously follow smart tourism, e-tourism, big data, blockchain, AI, and smart city studies and increase their investments in this field. Distinct regulatory frameworks must be established to direct the ethical and safe application of digital technology and create a controlled and supportive environment. We stress the importance of stakeholder collaboration and the need for educational programs to inform travelers about digital technologies. This will encourage their efficient and culturally responsible use in the travel and tourism industry.

Limitations

It is essential to acknowledge certain inherent limitations of the present study. In particular, the reliance on the SCOPUS database may introduce biases and limitations. This may limit the comprehensiveness of the analysis. To compensate for this limitation, future researchers are encouraged to explore additional international databases, including but not limited to Web of Science, GOOGLE Scholar, and national indexes such as TÜBİTAK Ulakbim and YÖK Thesis Centre (National Thesis Centre of Turkey). By broadening the scope of research, researchers can gain a more holistic understanding of the dynamics underpinning digitalization in the tourism sector, thereby enriching academic discourse and informing evidence-based policymaking. As English is the most commonly used language in academic research, only articles written in English were included in this study. This may be another limitation of the study. Other researchers may include studies written in other languages in their studies. While researching in SCOPUS, digitalization, Tourism 4.0, smart

tourism, and cyber tourism keywords were used. This is considered as a limitation of the research. Future researchers can use the keywords of digital tourism (AI, service robots, VR, AR, etc.).

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Digital tourism: A bibliometric study of trends and research

Abstract

Digital advances are profoundly impacting consumer behaviour and industry dynamics, and the tourism sector stands to benefit significantly from these advances. This paper conducts a comprehensive bibliometric analysis focusing on the convergence of tourism and digitalization. The study starts with the keywords 'tourism' and 'digitalization' as the fundamental pillars of the study. With the help of a quantitative bibliometric analysis methodology, the current research seeks to delineate the prevalence and trajectory of these concepts within the scholarly literature. Using data from academic studies published between 2000 and 2024 and archived in the SCOPUS database, this study examines the development and prominence of relevant themes. The analysis identified 1437 studies. The number of studies conducted, especially after 2019, has increased significantly. When the keywords are analysed, the top three are 'smart tourism,' 'big data,' and 'blockchain,' respectively. When the link strength of the authors is examined, Chulmo Koo is in the first place, Dimitrios Buhalis is the most cited author, and among the journals, 'Electronic Markets,' 'Tourism Review,' and 'Sustainability' are leading, respectively. In this context, some theoretical and practical suggestions are presented.

Keywords: Bibliometric analysis, Digitalisation, Digital Tourism, Scopus, Tourism, VOSviewer.

Authors

Full Name	Author contribution roles	Contribution rate
Ferhat KURT:	Conceptualism, Methodology, Resources, Writing - Original Draft	60%
Volkan GENÇ:	Methodology, Validation, Writing - Review & Editing, Supervision	40%

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This paper does not required ethics committee report

Justification: The methodology of this study does not require an ethics committee report.