

From Smart Tourism to Intelligent Destinations: A Bibliometric Exploration of AI and Digital Innovation

Dr Shweta Singh

Professor, Department of Management Studies, Bhagat Phool Singh Mahila
Vishvavidyalya, Khanpur Kalan, Sonapat, India

Dr Pooja Vyas

Professor, Institute of Management Studies and Research
Maharshi Dayanand University, Rohtak, India

Vipin Kumar

Assistant Professor, Electrical Engineering
University Institute of Engineering and Technology
Maharshi Dayanand University, Rohtak, India

Dr. Mohinder Paul

Associate Professor, Department of Commerce
Central University of Himachal Pradesh, Dharmshala, H. P., India

Dr. Hawa Singh

Assistant Professor, Department of Management,
Gurugram University, Gurugram, India

Dr. Jagdeep Singla

Professor, Department of Management Studies, Bhagat Phool Singh Mahila
Vishvavidyalya, Khanpur Kalan, Sonapat, India

Abstract

The rapid integration of artificial intelligence (AI) and digital innovation into tourism ecosystems has accelerated the evolution of smart tourism toward intelligent destinations. Despite the growing body of literature, a comprehensive understanding of the field's intellectual structure, influential contributors, thematic evolution, and emerging research directions remains limited. This study conducts a bibliometric analysis of 210 publications indexed in the Scopus database between 2015 and 2025 to examine publication trends, citation patterns, influential authors, journals, institutions, collaboration networks, and thematic developments within smart tourism and intelligent destination research. Using Biblioshiny and VOSviewer, the study applies performance analysis, keyword co-occurrence analysis, thematic mapping, trend topic analysis, and conceptual structure analysis. The findings reveal a substantial growth in scientific production, reflecting increasing scholarly interest in AI-driven tourism innovation. Artificial intelligence, smart tourism, digital transformation, sustainability,

and tourism management emerged as the dominant research themes, while machine learning, predictive analytics, blockchain, and intelligent destination governance represent emerging areas of investigation. The conceptual analysis identifies four major thematic clusters, highlighting the interdisciplinary convergence of tourism, information systems, and digital technologies. Furthermore, the results demonstrate how AI and digital innovation have transformed traditional smart tourism frameworks into intelligent destination ecosystems characterized by personalization, automation, and data-driven decision-making. The study concludes by outlining future research directions and practical implications for researchers, destination managers, and policymakers seeking to foster sustainable and intelligent tourism development.

Keywords: Smart Tourism; Intelligent Destinations; Artificial Intelligence; Digital Innovation; Bibliometric Analysis; Digital Transformation; Tourism Innovation.

Introduction

The tourism sector has seen significant technological shifts in recent years, with the advent of artificial intelligence (AI), big data analytics, blockchain, cloud computing, the Internet of Things (IoT), and smart technologies. These technological changes have radically reshaped the way tourism is operated, managed, experienced and serviced in the global tourism system (Buhalis, 2020; Gretzel, Sigala, et al., 2015). Due to this, the smart tourism research area has become one of the most impactful and growing research fields in tourism and hospitality studies.

Smart tourism is defined as the use of state-of-the-art ICT in the tourism infrastructures, to increase the competitiveness of a tourism destination, the sustainability of tourism, and the tourist's experience (Buhalis & Amaranggana, 2014). Smart tourism destinations are based on smart digital ecosystems, with governments, tourism stakeholders, businesses and local communities engaging in intelligent technological platforms and real-time information systems (Gretzel, Werthner, et al., 2015). They enable an efficient management of resources, customized services, smart mobility, and value creation together, in tourism contexts.

Smart tourism has slowly been developing into the intelligent destination concept, where destinations rely on smart systems based on Artificial Intelligence, predictive analytics, machine learning and autonomous technology, coupled with real-time decision-making systems to optimize the management of the tourism industry and tourist experience (Li & Mahasuweerachai, 2026; Moliner-Tena et al., 2026). Intelligent destinations are defined as systems that are adaptive and autonomous, that can respond dynamically to tourist behavior, in real time, to a change in the environment and to operational problems. This change is indicative of the ongoing convergence of AI, digital innovation, and tourism ecosystem management.

Artificial Intelligence (AI) is one of the most disruptive forces in the tourism and hospitality industry today. Today, the use of AI in the tourism sector is becoming more prominent, with its application in tourism operations and destination governance increasingly gaining importance, including in recommendation systems, chatbots, service robots, facial recognition systems, predictive analytics, sentiment analysis, and

intelligent transportation systems (Kim et al., 2019; Park et al., 2026). These technologies enhance the operational efficiency, automate tourism services, enable intelligent tourism decision-making, and create hyper-personalized tourism experiences. At the same time, digital innovation has revolutionized tourism marketing, destination branding, customer engagement and tourism service delivery, based on blockchain technologies, mobile tourism applications, cloud systems, augmented reality (AR), virtual reality (VR), metaverse tourism, and smart payment systems (Pava-Díaz et al., 2026). Digital technologies are playing an increasing role in making tourism destinations more attractive to offer immersive tourism experiences, intelligent mobility systems, smart governance, and collaborative tourism ecosystems (Bondarenko et al., 2025).

The COVID-19 pandemic also propelled the digitalization of the tourism ecosystem by driving the use of contactless technologies, virtual tourism, AI-supported automation systems, and smart destination management (DMO) (Csapó & Végi, 2026). In the face of uncertainty, tourism organizations and destinations are increasingly turning to AI-powered systems for forecasting tourist behavior, optimizing tourism flows, crisis management, and destination resilience. AI-powered systems are becoming more and more important in handling uncertainty in tourism contexts, from predicting tourist behaviour to optimizing tourism flows, to disaster management and to the resilience of the destination.

Based on the aforementioned studies, there have been emerging research themes, such as AI-driven customer experience, tourism sustainability, smart mobility systems, tourism digital transformation, tourism big data analytics, blockchain-enabled tourism systems, immersive tourism technologies, metaverse tourism, and intelligent destination governance (Csapó & Végi, 2026). The themes show that current research on tourism is becoming interdisciplinary, including the fields of tourism management, artificial intelligence, data science, smart city development, sustainability studies, and the digital innovation framework.

Although the concept of a smart touristic destination and intelligent tourist destination has attracted the interest of scholars, the literature is still scattered and distributed in different fields such as tourism management, hospitality sciences, information systems, sustainability studies, and smart city studies (Wei & Ab-Rahim, 2025) (Nguyen et al., 2025). Past research is primarily focussed on individual technological applications, on conceptual discussions, or on case-specific analysis, without explicitly considering the thematic development and intellectual trajectory of this field of research that is growing in a rapid way.

The bibliometric analysis offers a comprehensive methodological framework for analyzing scientific publications systematically, using the tools of citation analysis, co-authorship analysis, keyword co-occurrence analysis, thematic mapping and scientific collaboration networks (Ellegaard & Wallin, 2015; Zupic & Čater, 2015). Thus, the present study aims to carry out a bibliometric analysis of the research on smart tourism, intelligent destinations, artificial intelligence and digital innovation, based on data extracted from the Scopus database.

In the current research the research analysis of global publications for this field was performed in order to identify the publication trends, influential authors, leading

publications, thematic evolution, collaboration structures and emerging research clusters in this field. The results will offer an important theoretical and practical contribution to the research community, decision-makers, destination managers and technology practitioners to understand the future path of intelligent tourism ecosystems.

The following research questions guide the systematic exploration of smart tourism and intelligent destination research.

RQ1: What are the key trends in publications and citation in the field of smart tourism and intelligent destinations?

RQ2: Which authors/author organizations, journals, and countries are the most influential in this research area and how much collaboration is there between them?

RQ3: What are the prevailing and emerging topics from the keyword co-occurrence analysis, thematic mapping, and trend topic analysis?

RQ4: What is the impact of artificial intelligence and digital innovation on the conceptual development of smart tourism into intelligent destinations?

RQ5: What are the future research directions and policy implications that arise from the patterns of bibliometric data in this area?

The study explores the evolution of research themes and collaboration structures, providing valuable insights for future tourism research and smart destination development.

Theoretical Framework

In the last 20 years, there has been dramatic change in the tourism systems and destination management, which has in turn led researchers to consider the impact of artificial intelligence, digital innovation, and smart technologies on tourism development and intelligent destination governance (Gretzel, Sigala, et al., 2015). Tourism has become a highly interconnected, data-driven, and technology-driven industry with the rise of AI systems, big data, IoT infrastructures, blockchain technologies, and immersive digital environments. Thus, smart tourism has become a strategic tool for improving the competitiveness of the destination, tourist experiences, efficiency of the tourism system and sustainable tourism development (Buhalis & Amaranggana, 2014)(Kumar et al., 2023).

Smart tourism ecosystems enable real-time information sharing, intelligent transportation systems, digital service provision and collaboration among the stakeholders in the tourism sector, governments, the business sector, and tourists (Gretzel, Sigala, et al., 2015). The rapidly digitalized nature of tourism systems, however, also brings up challenges of data management, technological adaptation, digital governance and sustainable destination planning. As tourism ecosystems grow in complexity, destinations need to adapt and be responsive to evolving tourist behaviours and environmental conditions through use of intelligent and adaptive technologies.

Thus, the concept of intelligent destinations has been extended from smart tourism by embedding autonomous learning systems, predictive analytics, machine learning algorithms, and AI-based decision-making systems into tourism infrastructures (Li &

Mahasuweerachai, 2026). Intelligent destinations, taking advantage of real-time tourism data, are able to optimize tourism flows, enhance the tourist experience, manage the destination resources, and enable intelligent governance systems (Moliner-Tena et al., 2026). These smart systems help tourism destinations to become more adaptive, resilient, personalized, and sustainable.

AI is one of the most game-changing technologies in the tourism and hospitality sector. Recommendation systems, virtual assistants, conversational chatbots, facial recognition systems, robotic services, predictive analytics, and sentiment analysis systems are among the various AI applications being used to automate tourism services and enhance customer engagement (Park et al., 2026)(Kumar, Yadav, et al., 2026). AI Tourism Systems can enhance the efficiency of tourism, boost competitiveness of destinations, and provide personalized recommendations for travellers, intelligent itinerary planning, tourism forecasting, smart mobility management, and customer relationship management (Belkaid & Kummitha, 2026).

The development of generative artificial intelligence technologies and intelligent conversational systems has further propelled the digitalization of tourism, using automated tourism communication, AI-generated tourism content, virtual tourism assistance and intelligent service delivery systems (Sağcan et al., 2026). AI-powered tools are becoming crucial to tourism organizations to boost operational efficiency, refine tourism experiences, and make better strategic decisions.

At the same time, digital innovation has revolutionized the tourism marketing, destination branding, tourist interaction and tourism value creation processes. The emergence and evolution of digitally intelligent tourism (Pava-Díaz et al., 2026). has been fuelled by the integration of blockchain technologies, cloud computing systems, mobile tourism applications, virtual reality, augmented reality, metaverse tourism platforms, and digital payment infrastructures. They enable immersive tourist experiences, intelligent mobility systems, co-creation of tourist destinations and real-time tourist engagement (Bondarenko et al., 2025)(Kumar, Subramanian, et al., 2026).

Additionally, recent studies on smart tourism have identified new research issues such as AI-based customer experience, tourism sustainability, tourism digital transformation, tourism big data analytics, smart mobility systems, blockchain-based tourism systems, immersive tourism technologies, metaverse tourism, and intelligent governance of tourism destinations (Prieto Mejía et al., 2026). The themes highlight the interdisciplinary and technology-driven nature of tourism research and the incorporation of concepts in tourism management, artificial intelligence, sustainable tourism, and digital innovation frameworks. Smart tourism technologies are a crucial element in the development of sustainable tourism, as evidenced by their growing integration. AI-powered systems facilitate environmental monitoring, intelligent transportation management, energy optimization, smart waste management, and predictive tourism planning within tourism destinations (Sánchez-Sánchez et al., 2026). Intelligent governance systems help to support evidence-based decision-making, resource optimization, tourism resilience, and sustainable destination development by analysing real-time data and implementing predictive management systems.

Although there has been an increasing number of publications related to smart tourism

and intelligent destination research, the present research is still scattered among various fields of tourism management, hospitality, information systems, artificial intelligence, sustainability studies, and smart city research. The few previous studies have tended to concentrate on specific applications of technology, on concepts or on empirical case analyses and have seldom addressed the scientific development and the intellectual organization of this new rapidly developing interdisciplinary area.

Thus, the present study addresses this research gap through the bibliometric analysis of research on smart tourism, intelligent destinations, artificial intelligence and digital innovation. The research methodologically traces the publication patterns, thematic evolution, collaboration patterns, intellectual structures and emerging research trends which are influencing the development of intelligent tourism ecosystems.

Bibliometric Methodology

The bibliometric analysis method is used for analyzing research fields of smart tourism, intelligent destinations, artificial intelligence and digital innovation. According to (Broadus, 1987) and (Ellegaard & Wallin, 2015), the bibliometric method is the quantitative application of bibliographic data. It has grown into a legitimate academic field which is relevant in various scientific areas such as tourism, hospitality, management and information systems (Zupic & Čater, 2015). The acquired data from the Scopus database were analyzed through three field keyword analysis, trend topic analysis, thematic mapping, and topmost cited articles analysis and leading journals analysis within the domain.

The authors analysed each article according to the following variables: thematic focus, technological orientation and conceptual development concerning smart tourism, intelligent destinations, AI and digital transformation. The research purpose or geographical focus was also classified for each study to identify the general trends of research in the field.

Research Design

Extraction of Information from Literature

As we study many scientific papers we used a systematic review of the literature to minimise the potential for bias (Dixon-Woods et al., 2006; Tranfield et al., 2003). The current bibliometric study conducted a wide search of the different repositories and publishers for literature relating to smart tourism, intelligent destinations, artificial intelligence and digital innovation. According to the explanation in Figure 1, the information was gathered following four stages: identification, screening, eligibility, and inclusion.

The data were gathered from various electronic databases included Elsevier, Web of Science, SAGE, Springer, Wiley Online Library, Taylor & Francis Online, Emerald Insight and other publishers in English language. However, only the dataset of bibliographic data was extracted from the Scopus database due to its rich multidisciplinary coverage and its suitability for bibliometric analysis.

For data extraction the search query was: ("Smart Tourism" OR "Sustainable Destination" OR "Smart destination") AND ("AI" OR "artificial intelligence" "Digital

transformation" OR "innovation" OR "Management*"). The study examined publications in the period of 2015-2025 and only peer reviewed articles published in academic journals that were indexed in Scopus reputed journals were included in the present study.

PRISMA Screening and Selection Process

Figure 1 illustrates the PRISMA-based screening and selection process used in this study. Initially, 210 records were retrieved from the Scopus database. Following initial filtering, 14 records were excluded, leaving 200 records for title and abstract screening. Subsequently, 16 records were removed due to duplication or irrelevance, resulting in 196 eligible records. A full-text assessment was then conducted, during which 2 articles were excluded because they did not meet the study criteria. Consequently, 194 publications were retained and included in the final bibliometric analysis. The selected studies cover the period 2015–2025 and provide the basis for examining the intellectual structure, research trends, and thematic evolution of smart tourism, intelligent destinations, artificial intelligence, and digital innovation research.

Prisma

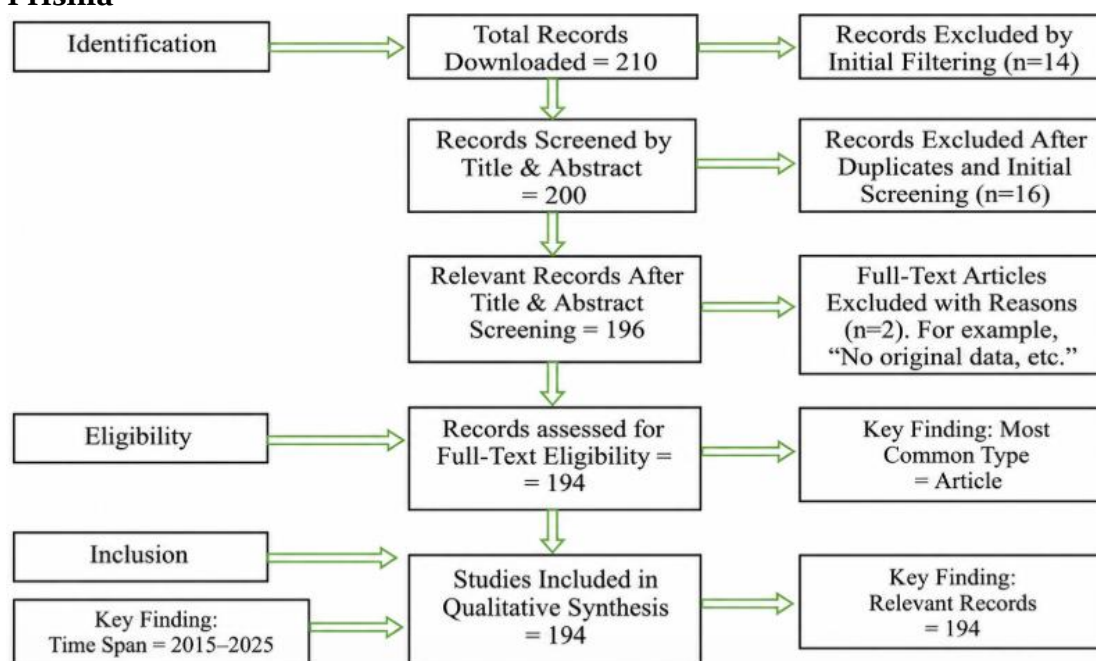


Figure 1: Flow chart for the incorporation of the articles in the study.

Source: Authors' development using the Scopus database.

For the present study, Biblioshiny (R-Studio) and VOSviewer software tools were used for bibliometric analysis, thematic mapping, keyword co-occurrence analysis, collaboration analysis, trend topic analysis, and visualization of the intellectual structure of the research domain.

Findings and Analysis

Overview of the Final Dataset

Table 1 presents the overview of the final dataset used for the bibliometric analysis. The study includes 210 documents published between 2015 and 2025 from 146 different academic sources. The dataset shows a strong annual growth rate of 38.51%, indicating the rapidly increasing scholarly interest in smart tourism, intelligent destinations, artificial intelligence, and digital innovation research. The average age of the documents is 2.04 years, while the average citations per document is 9.195, reflecting the growing academic influence of the field. The dataset contains 8,622 references, 1,015 Keywords Plus, and 662 authors' keywords, highlighting the interdisciplinary nature of the research domain.

A total of 569 authors contributed to the publications, including 29 single-authored documents, which indicates a strong trend toward collaborative research in smart tourism and intelligent destination studies.

Table 1: Overview of Final Dataset

Description	Results
Main Information about Data	
Timespan	2015:2025
Sources (Journals, Books, etc.)	146
Documents	210
Annual Growth Rate %	38.51
Document Average Age	2.04
Average citations per doc	9.195
References	8622
Document Contents	
Keywords Plus (ID)	1015
Author's Keywords (DE)	662
Authors	
Authors	569
Authors of single-authored docs	29
Authors Collaboration	

Source: Authors' Development

Annual Scientific Production

Figure 2 illustrates the annual scientific production and average citations per year for research on smart tourism, intelligent destinations, artificial intelligence, and digital innovation between 2015 and 2025. The results reveal a clear upward trend in publication output, indicating growing scholarly interest in the field. Research activity remained limited during the early years (2015–2019), with fewer than five publications annually. However, scientific production increased steadily from 2020 onward, rising from 8 publications in 2020 to a peak of 41 publications in 2024, before slightly

declining to 36 publications in 2025.

The rapid growth after 2020 reflects the increasing adoption of digital technologies, artificial intelligence, and smart tourism solutions within the tourism industry. The citation trend shows that early publications received higher average citations, with the highest citation impact recorded in 2016 (17 citations per year). Recent years exhibit lower average citations due to citation lag effects, as newly published studies have had less time to accumulate citations. Overall, the findings demonstrate that smart tourism research has evolved into a rapidly expanding and increasingly influential area of academic inquiry.

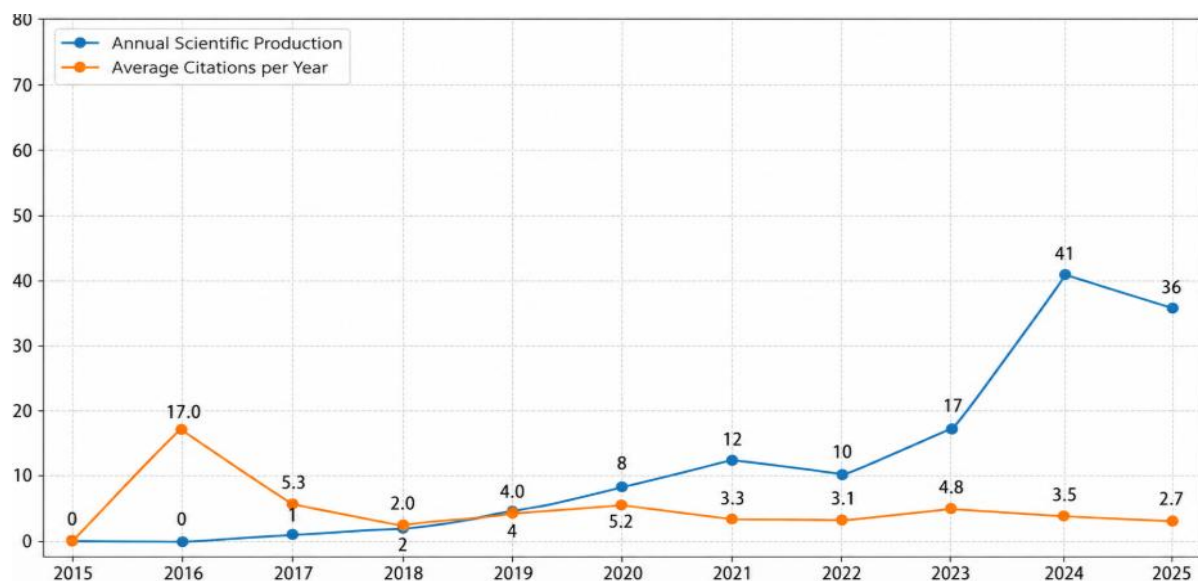


Figure 2: Annual Scientific Production and Average Citations Per Year
Source: Developed by Authors.

Top 10 Most Globally Cited Articles

Table 2 presents the ten most globally cited articles in the field of smart tourism, intelligent destinations, artificial intelligence, and digital innovation research. These publications have made significant contributions to the intellectual development of the field and continue to influence subsequent scholarly investigations.

The most highly cited article is Kim et al. (2017), titled “What makes tourists feel negatively about tourism destinations? Application of hybrid text mining methodology to smart destination management,” published in *Technological Forecasting and Social Change*. The study received 170 total citations (TC) and an average of 17 citations per year, highlighting its substantial impact on smart destination management and the application of data analytics in tourism research.

Among the more recent publications, Yang et al. (2024) achieved an exceptional citation performance with 129 total citations and the highest average citation rate of 43 citations per year. The study on personalized tourism recommendations and e-tourism user experiences demonstrates the growing academic interest in artificial intelligence-driven personalization and recommendation systems within tourism. Similarly,

Blocher and Alt (2021) accumulated 110 citations, emphasizing the transformative role of AI and robotics in the hospitality and restaurant industry. The article reflects the increasing relevance of automation and intelligent technologies in enhancing service efficiency and customer experiences.

Research on AI applications in tourism destinations has also gained significant scholarly attention. For instance, Wang et al. (2020) proposed an artificial intelligence framework for destination image identification and received 83 citations, while Aliyah et al. (2023) explored the combined impact of Artificial Intelligence and the Internet of Things (IoT) on smart tourism destinations, attracting 79 citations. These findings indicate that AI-enabled destination management and digital innovation are emerging as core research themes.

The table further reveals the growing importance of sustainability-oriented smart tourism research. Van et al. (2020) and Zhang and Deng (2024) focused on smart technologies, sustainable tourism, and ecotourism development, receiving 108 and 78 citations, respectively. Their strong citation performance suggests that researchers increasingly view digital technologies as essential tools for achieving sustainable tourism development.

Notably, Gretzel et al. (2015), with the seminal article “Smart Tourism: Foundations and Developments,” remains one of the most influential foundational works in the field. Although it recorded a relatively lower annual citation rate due to its earlier publication date, the article continues to serve as a key reference for subsequent smart tourism studies. Overall, the most globally cited articles demonstrate that the research field has evolved from conceptual discussions of smart tourism toward advanced applications of artificial intelligence, machine learning, IoT, recommendation systems, robotics, and sustainable destination management. The strong citation performance of recent publications further indicates that technology-driven tourism innovation remains one of the fastest-growing and most influential areas within contemporary tourism research.

Table 2: Top 10 Most Globally Cited Articles.

Authors	DOI	Titles	Journal	Year	TC	TC per Year
(Kim et al., 2017)	https://doi.org/10.1016/j.techfore.2017.01.001	What makes tourists feel negatively about tourism destinations? Application of hybrid text mining methodology to smart destination management	Technological Forecasting and Social Change	2017	170	17
(Yang et al., 2024)	https://doi.org/10.1177/00472875231187332	Personalized Tourism Recommendations and the E-Tourism User Experience	Journal of Travel Research	2024	129	43
(Blocher & Alt, 2021)	https://doi.org/10.1007/s12525-020-00443-2	AI and robotics in the European restaurant sector: Assessing potentials for process innovation in a high-contact service industry	Electronic Markets	2021	110	18.33
(Van et al., 2020)	https://doi.org/10.3390/su12229523	The role of human-machine interactive devices for post-COVID-19 innovative sustainable tourism in Ho Chi Minh City, Vietnam	Sustainability	2020	108	15.43
(Wang et al., 2020)	https://doi.org/10.1016/j.jdmm.2020.100512	Developing an artificial intelligence framework for online destination image photos identification	Journal of Destination Marketing and Management	2020	83	11.86
(Aliyah et al., 2023)	https://doi.org/10.34306/att.v5i2sp.332	Examining the Impact of Artificial Intelligence and Internet of Things on Smart Tourism Destinations: A Comprehensive Study	APTISI Transactions on Technopreneurship	2023	79	19.75
(Zhang & Deng, 2024)	https://doi.org/10.1016/j.heliyon.2024.e31996	Exploring the nexus of smart technologies and sustainable ecotourism: A systematic review	Heliyon	2024	78	26
(Nannelli et al., 2023)	https://doi.org/10.1080/09654313.2023.2180321	Artificial intelligence in hospitality and tourism: State of the art and future research avenues	European Planning Studies	2023	77	19.25
(Zheng et al., 2020)	https://doi.org/10.1016/j.tourman.2020.104162	Navigating through the complex transport system: A heuristic approach for city tourism recommendation	Tourism Management	2020	64	9.14
(Gretzel et al., 2015)	https://doi.org/10.1016/j.jbusres.2015.08.005	Smart tourism: foundations and developments	Journal of Business Research	2015	61	6.1

Source: Developed by Authors.

Top Influential Journals

Table 3 presents the ten most influential publication sources in the field of smart tourism, intelligent destinations, artificial intelligence, and digital innovation. The journals were ranked using multiple indicators, including the number of publications (NP), total citations (TC), H-index, and percentage contribution to the overall dataset. Among the listed sources, Sustainability (Switzerland) emerged as the most influential journal, recording the highest total citations (TC = 161) and an H-index of 3 from five published articles. This finding highlights the journal's significant role in disseminating research related to sustainable tourism, digital transformation, and smart destination development. Similarly, the ACM International Conference Proceeding Series achieved an H-index of 3 and published the highest number of documents (NP = 7), indicating its importance as a platform for emerging technological and innovation-focused tourism research. Several journals demonstrated strong citation impact despite publishing a relatively small number of articles. For example, Electronic Markets accumulated 116 citations from only two publications, while APTISI Transactions on Techno-preneurship received 108 citations from two articles. This suggests that the studies published in these sources have had substantial scholarly influence and visibility within the research community.

Other notable sources include Advances in Intelligent Systems and Computing,

Journal of Physics: Conference Series, and the Handbook of e-Tourism, each contributing to the advancement of knowledge on artificial intelligence applications, smart technologies, and digital innovation in tourism. Furthermore, publication venues such as Lecture Notes in Computer Science and Marketing and Big Data Analytics in Tourism and Events reflect the increasing integration of computer science, data analytics, and tourism research.

Overall, the top ten journals collectively contributed approximately 15.69% of the total publications in the dataset, indicating that research on smart tourism and intelligent destinations is distributed across a diverse range of interdisciplinary journals and conference proceedings rather than being concentrated within a few dominant sources. This diversity highlights the multidisciplinary nature of the field, which combines perspectives from tourism, hospitality, information systems, artificial intelligence, and digital innovation.

Table 3: Top Influential Journals

Ran k	Journal	YPS	NP	TC	H-index	Perce nt
1	Sustainability (Switzerland)	2020	5	161	3	2.38
2	ACM International Conference Proceeding Series	2020	7	22	3	3.33
3	Electronic Markets	2021	2	116	2	0.95
4	APTISI Transactions on Technopreneurship	2023	2	108	2	0.95
5	Advances in Intelligent Systems and Computing	2019	4	78	2	1.9
6	Journal of Physics: Conference Series	2019	4	58	2	1.9
7	Handbook of e-Tourism	2022	2	58	2	0.95
8	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)	2019	2	36	2	0.95
9	Marketing and Big Data Analytics in Tourism and Events	2024	2	29	2	0.95
10	Worldwide Hospitality and Tourism Themes	2023	3	23	2	1.43

Source: Developed by Authors.

Top Most Prolific Authors

Table 4 presents the ten most prolific and influential authors in the field of smart tourism, intelligent destinations, artificial intelligence, and digital innovation research.

The authors were evaluated based on the number of publications (NP), total citations (TC), H-index (HI), citations per article, and average citations per year. Among all contributors, Das S. emerged as the most influential author, with 3 publications, 197 total citations, and the highest H-index of 3. The author achieved an average of 65.67 citations per article and 32.83 citations per year, highlighting a strong and sustained scholarly impact. Based on these performance indicators, Das S. can be considered a Core Influencer within the research domain.

Although publishing only two articles, Zhang L. demonstrated exceptional citation performance, accumulating 136 total citations and the highest average citations per article (68) as well as 45.33 citations per year. This indicates that the author's work has gained rapid academic recognition and significant influence within a relatively short period, positioning Zhang L. as a High-Impact Author. Similarly, Zhang Y. contributed three publications and received 83 citations, reflecting a growing research influence. The author's citation performance suggests an emerging leadership role in the field, particularly in studies related to digital innovation and smart tourism technologies. Likewise, Gajdošík T. recorded 78 citations from two publications, demonstrating a well-established contribution to the literature.

The table also highlights the presence of renowned tourism scholars such as Gretzel U. and Xiang Z., both of whom have been widely recognized for their contributions to smart tourism and technology-enabled tourism research. Despite having relatively fewer citations within the present dataset, their inclusion among the top authors reflects their continued relevance and influence in shaping smart tourism scholarship. A group of recently active researchers, including Badouch M., Boutaounte M., Mahmoud H., and Liasidou S., are categorized as New Entrants. Although their citation counts remain relatively modest due to their recent publication years (2025), their presence among the most productive authors indicates emerging scholarly interest and potential future influence within the field.

Overall, the findings reveal a diverse authorship structure characterized by a combination of established scholars, high-impact contributors, and emerging researchers. The citation distribution further suggests that research influence in the smart tourism domain is concentrated among a relatively small group of authors whose studies have significantly contributed to the advancement of artificial intelligence, digital innovation, and intelligent destination research.

Table 4: Top Most Prolific Authors

Rank	Author	NP	TC	HI	TC/Article	Avg. Citations/Year	PYS	Impact Category
1	Das S.	3	197	3	65.67	32.83	2020	Core Influencer
2	Zhang L.	2	136	2	68	45.33	2023	High-Impact Author
3	Zhang Y.	3	83	2	27.67	16.6	2021	Emerging

								Influencer
4	Gajdošík T.	2	78	2	39	11.14	2019	Established Contributor
5	Gretzel U.	2	27	2	13.5	6.75	2022	Emerging Contributor
6	Xiang Z.	2	27	2	13.5	6.75	2022	Emerging Contributor
7	Badouch M.	2	11	2	5.5	11	2025	New Entrant
8	Boutaounte M.	2	11	2	5.5	11	2025	New Entrant
9	Mahmoud H.	2	11	2	5.5	11	2025	New Entrant
10	Liasidou S.	2	6	2	3	6	2025	New Entrant

Source: Developed by Authors.

Most Relevant Affiliations

Figure 3 presents the top ten most relevant affiliations contributing to research on smart tourism, intelligent destinations, artificial intelligence, and digital innovation. The results indicate that research contributions are distributed across institutions from Asia, Europe, Africa, and Latin America, reflecting the global and interdisciplinary nature of the field.

Three institutions emerged as the most productive affiliations, each contributing three publications: Faculty of Sciences, Ibn Zohr University (Morocco), Christ University (India), and Universidad Politécnica de Pachuca (Mexico). Their leading positions suggest a growing international interest in smart tourism research, particularly among institutions in emerging economies that are actively exploring digital transformation and intelligent tourism systems. Several institutions contributed two publications each, including Albanian University (Albania), CONAHCYT Programme (Mexico), Wuhan Business University (China), Research Center of Wuhan Business University (China), University of Piraeus (Greece), Philips University (Cyprus), and Christ University, Bangalore (India). These institutions have played an important role in advancing research on artificial intelligence applications, smart destination management, tourism innovation, and digital technologies.

Overall, the distribution of publications across multiple institutions suggests that the research field is not dominated by a single university or region. Instead, scholarly contributions originate from a diverse network of international institutions, highlighting the collaborative and multidisciplinary character of smart tourism research. This geographical diversity also reflects the increasing global adoption of

digital technologies and intelligent solutions within tourism and destination management.

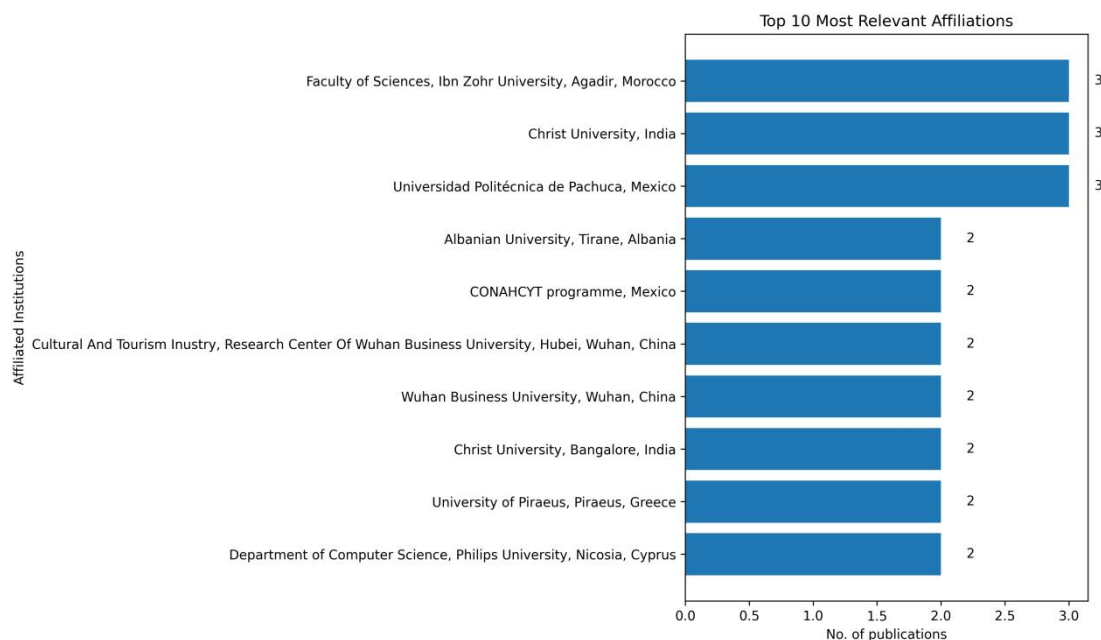


Figure 3: Top 10 Most Relevant Affiliations
Source: Developed by Authors.

Thematic Evolution of Smart Tourism Research (2019–2025)

Figure 4 presents the thematic evolution of research on smart tourism, intelligent destinations, artificial intelligence, and digital innovation between 2019 and 2025. The analysis illustrates how the intellectual focus of the field has evolved from foundational conceptual discussions toward more specialized and technology-oriented research themes. During the 2019–2021 period, the literature was primarily centered on foundational concepts such as smart tourism destinations, tourism information services, Internet of Things (IoT), smart tourism ecosystems, artificial intelligence, and information and communication technologies (ICTs). These themes reflect the early stage of the field, where researchers focused on defining smart tourism, exploring its technological foundations, and examining the role of digital infrastructure in destination development.

Between 2022 and 2023, the research landscape became more diversified. Thematic contributions from influential authors such as Alita A., Varghese B., Alophese B., Diez-Parra O., Badouch M., and Das S. indicate a growing interest in integrating artificial intelligence, tourism management, human-computer interaction, and digital innovation into tourism studies. This period marks a transition from conceptual discussions toward practical applications and technology-driven solutions for tourism management and destination competitiveness. In the most recent period (2024–2025),

the field evolved toward advanced and emerging themes, including artificial intelligence, big data, machine learning systems, information management, Internet of Things, smart tourism, sustainable development, and the tourism and leisure industries. The strong linkage between artificial intelligence and tourism-related concepts suggests that AI technologies are becoming central to destination management, tourist experience personalization, and tourism decision-making processes.

Overall, the thematic evolution reveals a clear progression from foundational smart tourism concepts toward advanced digital technologies and data-driven tourism innovation. The emergence of themes such as artificial intelligence, machine learning, big data analytics, and sustainable development demonstrates the maturation of the field and highlights future research directions focused on intelligent, sustainable, and technology-enabled tourism systems.

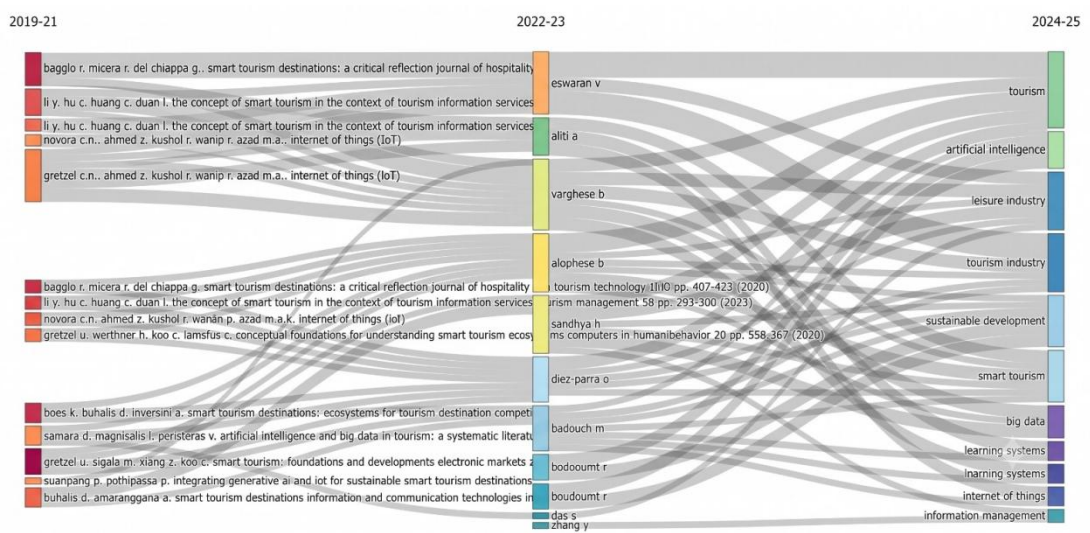


Figure 4:Thematic Evolution
Source: Developed by Authors.

Trending Topics in Smart Tourism Research (2019–2025)

Figure 5 illustrates the most prominent and emerging research topics in the field of smart tourism, intelligent destinations, artificial intelligence, and digital innovation between 2019 and 2025. The analysis provides insights into the evolving interests of scholars and highlights the thematic directions shaping the development of the research domain. The results indicate that electronic commerce and online social networking were among the earliest topics attracting scholarly attention between 2019 and 2022. These themes reflect the growing importance of digital platforms and online interactions in influencing tourist behavior, destination marketing, and tourism service delivery. During the same period, blockchain technology also emerged as a research topic, demonstrating increasing interest in secure, transparent, and decentralized solutions for tourism transactions and information management.

From 2023 onwards, the research focus shifted toward more advanced digital technologies and management-oriented themes. Topics such as big data, tourism

management, and tourism sectors gained prominence, reflecting the increasing use of data analytics and digital intelligence to support strategic decision-making and destination competitiveness. The growing frequency of these topics suggests that researchers are increasingly interested in leveraging data-driven approaches to enhance tourism performance and visitor experiences.

The most dominant themes during 2024–2025 were artificial intelligence, smart tourism, and tourism, which recorded the highest term frequencies. This finding highlights the central role of AI-powered technologies, intelligent systems, and digital innovation in contemporary tourism research. The prominence of these themes indicates a transition from general digitalization studies toward more sophisticated applications involving machine learning, intelligent recommendation systems, automation, and smart destination management.

More recently, emerging topics such as behavioral research, bibliometric analysis, and ethical aspects have gained attention. Their appearance suggests a growing interest in understanding tourist behavior, evaluating the evolution of the research field, and addressing ethical concerns related to artificial intelligence, data privacy, algorithmic transparency, and responsible technology adoption in tourism. Overall, the trend topic analysis demonstrates that smart tourism research has evolved from a focus on digital platforms and online interactions toward advanced applications of artificial intelligence, big data analytics, and intelligent tourism systems. The emergence of ethical and behavioral dimensions further indicates the maturation of the field and points to future research opportunities in responsible and human-centered tourism innovation.

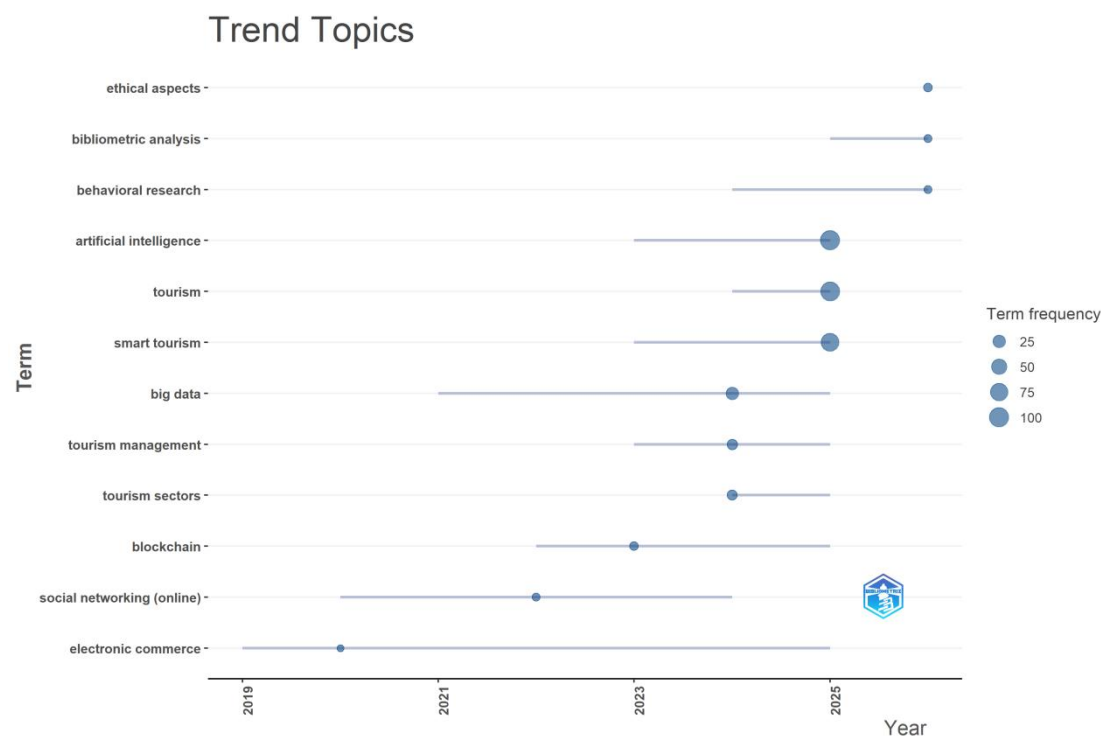


Figure 5 Trending Topics

Source: Developed by Authors.

Thematic Map Analysis

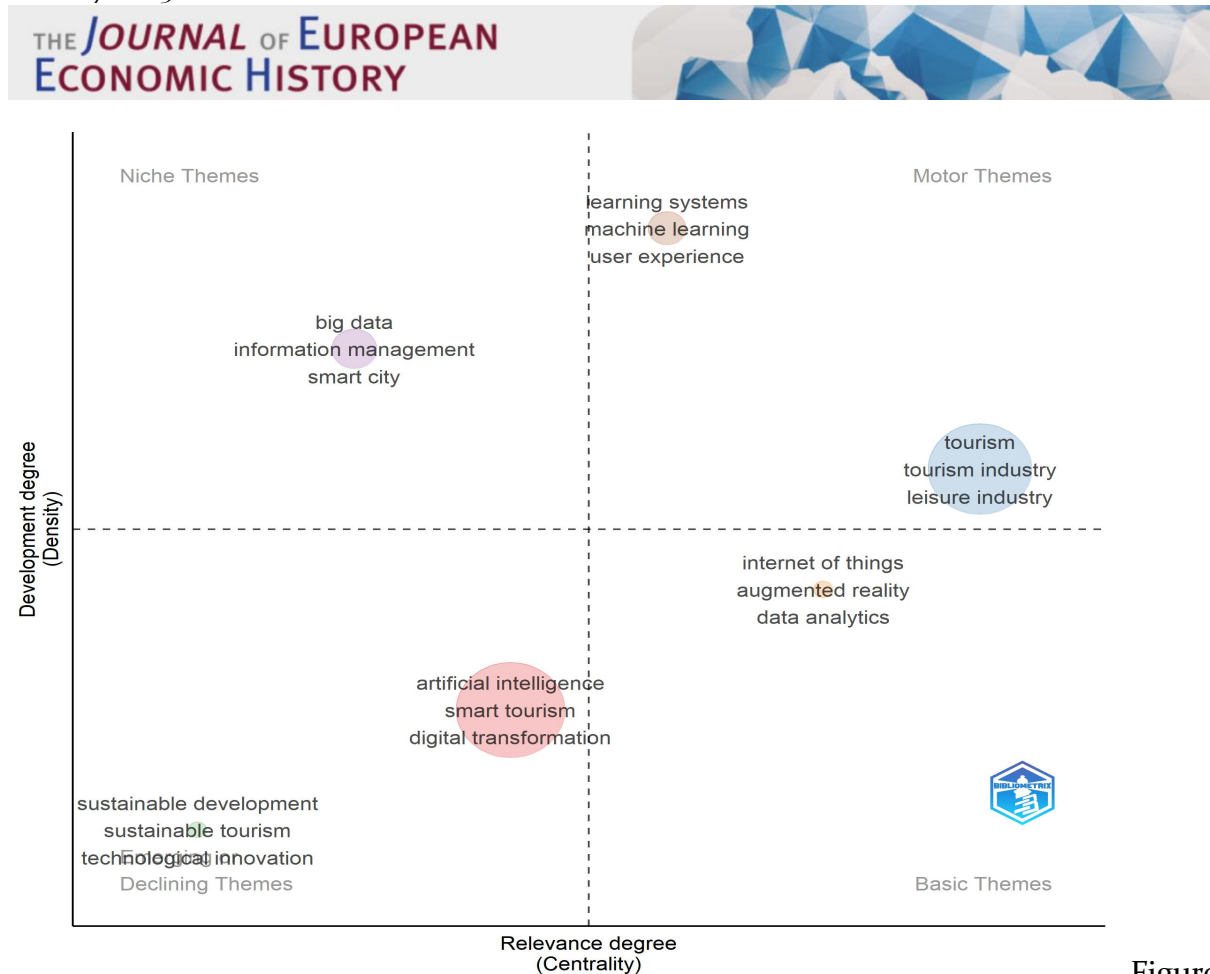
Figure 6 presents the thematic map of research on smart tourism, intelligent destinations, artificial intelligence, and digital innovation. The map classifies research themes according to their centrality (relevance) and density (development), thereby revealing the maturity and importance of different research topics within the field. The Motor Themes quadrant (upper-right) contains highly developed and influential topics that drive the research field. This cluster includes learning systems, machine learning, and user experience, indicating that advanced artificial intelligence technologies and user-centered applications have become major research priorities. Their high centrality and density suggest that these themes are both well-developed and strongly connected to the broader smart tourism literature.

The Basic Themes quadrant (lower-right) comprises topics that are fundamental to the field but still require further theoretical and empirical development. Themes such as tourism, tourism industry, and leisure industry occupy this quadrant, highlighting their central role in smart tourism research. Similarly, Internet of Things (IoT), augmented reality, and data analytics appear as important supporting technologies that are increasingly integrated into tourism operations and destination management.

The Niche Themes quadrant (upper-left) includes big data, information management, and smart city. These themes exhibit high levels of internal development but relatively lower connections with the broader research field. Although specialized in nature, they represent important areas of investigation that contribute to technological innovation and intelligent urban-tourism integration.

The Declining or Emerging Themes quadrant (lower-left) contains sustainable development, sustainable tourism, and technological innovation. Their lower centrality and density suggest that these themes are either emerging areas that have not yet achieved strong integration within the field or topics receiving comparatively less scholarly attention. Given the increasing global emphasis on sustainability, these themes may evolve into more influential research areas in future studies.

Overall, the thematic map demonstrates that smart tourism research is increasingly driven by artificial intelligence, machine learning, and user experience studies, while technologies such as IoT, augmented reality, and data analytics continue to provide the foundational infrastructure for innovation. The presence of sustainability-related themes among emerging areas also highlights promising opportunities for future research on sustainable and technology-enabled tourism development.



Figure

6 Thematic Map.

Source: Developed by Authors.

Conceptual Structure of Smart Tourism Research

The factorial analysis of author keywords (Fig. 7) identifies four major conceptual clusters that structure the research landscape of smart tourism, intelligent destinations, artificial intelligence, and digital innovation. Rather than representing isolated themes, these clusters reflect interconnected domains that collectively explain the technological, managerial, experiential, and transformational dimensions of smart tourism research. Together, they form an integrated knowledge system linking tourism technologies, destination management, digital innovation, governance frameworks, and emerging intelligent systems.

Cluster 1 (Purple): Smart Tourism, Digital Transformation, and Tourist Experience.

This cluster represents the largest and most central thematic domain in the research landscape. It comprises keywords such as smart tourism, artificial intelligence, machine learning, digital transformation, destination management, smart tourism destinations, tourism, sustainability, big data, Internet of Things (IoT), digital marketing, personalization, virtual reality, augmented reality, halal tourism, user experience, sentiment analysis, and innovation. The cluster captures the core intellectual foundation of smart tourism research and highlights how emerging digital technologies are transforming tourism experiences and destination management

practices. The presence of machine learning, personalization, and sentiment analysis indicates increasing efforts to understand tourist behavior and deliver customized tourism services. Similarly, virtual and augmented reality technologies reflect the growing importance of immersive experiences in tourism marketing and destination promotion. Analytically, this cluster represents the technology-enabled tourism ecosystem where digital innovation, tourist engagement, and destination competitiveness converge to create intelligent tourism environments.

Cluster 2 (Cyan): Artificial Intelligence Governance, Smart Cities, and Industry 4.0.
The second cluster consists of artificial intelligence (AI), governance, smart city, and Industry 4.0. This cluster reflects the institutional and technological transformation of tourism within broader urban and digital development frameworks. The inclusion of smart cities and governance suggests that smart tourism is increasingly being examined beyond the destination level and within larger urban innovation systems. Industry 4.0 technologies, including automation, connectivity, and intelligent infrastructures, are viewed as critical enablers of tourism transformation. This cluster emphasizes the role of governance structures, policy frameworks, and technological ecosystems in supporting sustainable and intelligent tourism development. It therefore reflects the integration of tourism innovation into wider smart city and digital economy agendas.

Cluster 3 (Red): Emerging Intelligent Technologies and Predictive Tourism Analytics.
This cluster is characterized by keywords such as AI, smart technologies, predictive analytics, blockchain, and IoT. The cluster represents emerging technological innovations that are reshaping tourism operations and decision-making processes. The strong association between predictive analytics and artificial intelligence highlights growing scholarly interest in forecasting tourist behavior, optimizing destination management, and improving strategic decision-making through data-driven approaches. Similarly, blockchain technology has emerged as a promising area for enhancing transparency, security, and trust within tourism transactions and digital platforms. Analytically, this cluster reflects the transition toward intelligent and automated tourism systems driven by advanced computational technologies and real-time data analytics.

Cluster 4 (Green): Hospitality and Knowledge Synthesis.
This cluster consists primarily of hospitality and systematic literature review. Although relatively small, it represents an important and rapidly growing area within the research landscape. The cluster indicates increasing scholarly efforts to consolidate existing knowledge and evaluate research developments within hospitality and tourism technology studies. The prominence of systematic literature reviews suggests that the field has reached a stage of maturity where researchers are synthesizing accumulated knowledge, identifying research gaps, and proposing future research directions. This cluster therefore reflects the intellectual consolidation and theoretical advancement of smart tourism scholarship.

Analytically, the four clusters operate along a continuum of technological and managerial development. Cluster 1 represents the operational and experiential core of smart tourism, focusing on how digital technologies enhance tourist experiences and destination management. Cluster 2 operates at the institutional and governance level, emphasizing smart cities, policy frameworks, and Industry 4.0 transformations. Cluster 3 reflects emerging technological frontiers, including blockchain, predictive analytics, and intelligent systems that are shaping the future of tourism innovation. Cluster 4 represents the knowledge-development dimension of the field, focusing on research synthesis and hospitality-related scholarship.

These clusters are mutually reinforcing. Technological innovations influence destination management practices, governance frameworks shape technology adoption, and emerging intelligent systems create new opportunities for tourism personalization and operational efficiency. At the same time, systematic reviews and hospitality research contribute to the continuous refinement of theoretical and practical knowledge. The strength of the literature lies in its multidisciplinary integration of tourism, artificial intelligence, digital transformation, and innovation studies. However, a key limitation remains the relatively weak integration between technological advancements and broader ethical, governance, and societal considerations, which presents an important avenue for future research.

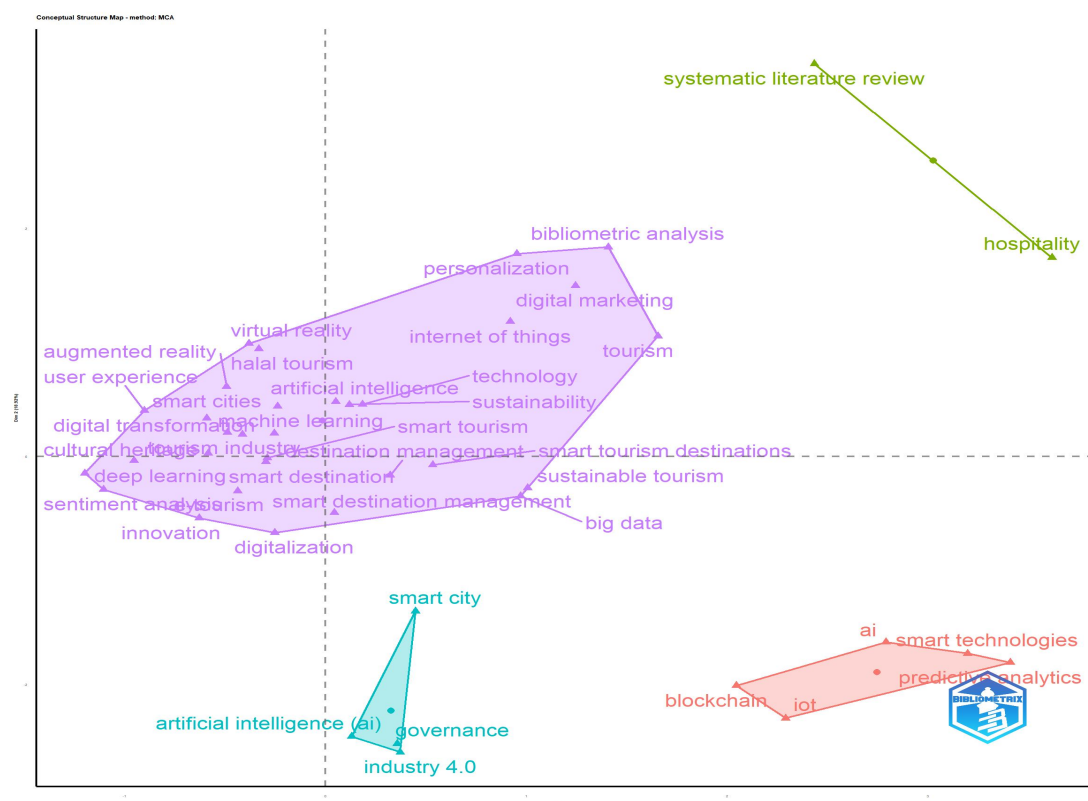


Figure 7 Conceptual Structure.
 Source: Developed by Authors.

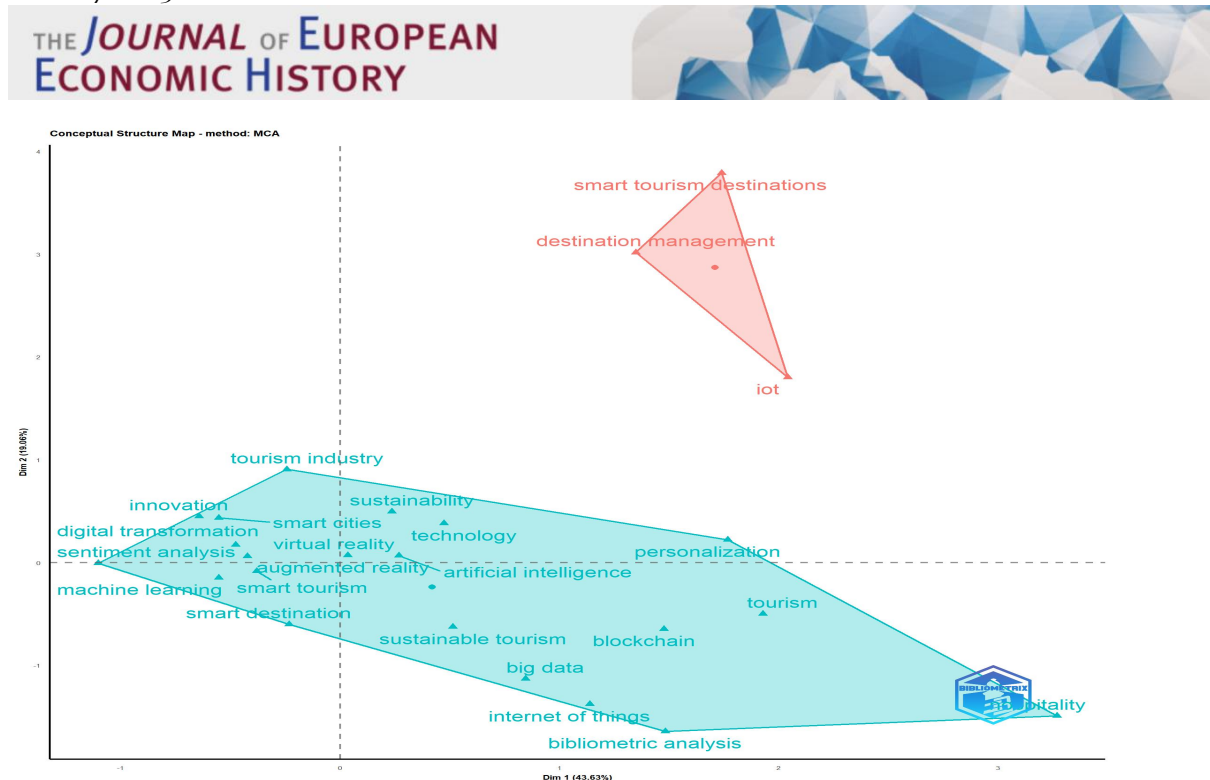


Figure 8: Conceptual structure.
 Source: Developed by Authors.

Existing Gaps in the Literature and Future Research Agenda

The keyword co-occurrence network and overlay visualizations (Figs. 9 and 10) provide valuable insights into the dominant research themes and emerging directions within the smart tourism, intelligent destinations, artificial intelligence, and digital innovation literature. The network analysis reveals that artificial intelligence, smart tourism, tourism, digital transformation, and sustainable development are the most prominent and highly connected themes, indicating that these topics have attracted considerable scholarly attention over the past decade. Their central positions within the network suggest that contemporary research has largely focused on the application of intelligent technologies to enhance tourism experiences, destination management, and sustainable tourism development.

However, the visualizations also reveal several comparatively underexplored areas. Keywords such as blockchain, predictive analytics, natural language processing, data privacy, decision support systems, chatbots, ethical aspects, and Internet of Things (IoT) appear less frequently and occupy peripheral positions within the network. This suggests that although these technologies have significant potential to transform tourism services and destination management, they remain relatively underrepresented within the existing literature. Similarly, issues related to AI ethics, algorithmic transparency, cybersecurity, data governance, and the societal implications of intelligent tourism systems have received limited scholarly attention despite their growing practical importance.

The overlay visualization further indicates a recent shift in research focus toward artificial intelligence, smart tourism, digital transformation, virtual reality, and smart cities. These themes represent emerging areas of scientific interest and reflect the

ongoing transition from traditional tourism management approaches toward intelligent, data-driven, and technology-enabled tourism ecosystems. In contrast, topics such as blockchain applications, predictive analytics, behavioral research, and privacy protection remain in the early stages of development and offer considerable opportunities for future investigation.

From a conceptual perspective, much of the existing literature approaches smart tourism primarily as a technological and managerial phenomenon, emphasizing the adoption of artificial intelligence, digital platforms, and smart technologies to improve operational efficiency and destination competitiveness. While these studies have contributed significantly to understanding technology implementation in tourism, they often pay limited attention to broader social, ethical, and governance dimensions. Issues such as digital inequality, user trust, technology acceptance, privacy concerns, and the societal impacts of AI-driven tourism systems remain insufficiently explored.

Methodologically, the literature is dominated by bibliometric studies, conceptual frameworks, cross-sectional surveys, and technology adoption models. Although these approaches provide valuable insights, there is a shortage of longitudinal studies, experimental designs, real-time data analytics, and interdisciplinary investigations that capture the dynamic interactions between tourists, technologies, destinations, and stakeholders. Furthermore, relatively few studies integrate emerging technologies such as blockchain, predictive analytics, IoT, and machine learning within a comprehensive smart tourism ecosystem framework.

Based on these gaps, future research should adopt more interdisciplinary and technology-integrated approaches that combine tourism studies with artificial intelligence, data science, information systems, and behavioral sciences. Greater attention should be devoted to ethical AI, data privacy, digital governance, blockchain-enabled tourism services, and predictive analytics for destination management. Additionally, longitudinal and mixed-methods studies are needed to examine the long-term impacts of intelligent technologies on tourist behavior, destination sustainability, and tourism competitiveness. Addressing these gaps will contribute to a more holistic understanding of smart tourism and support the development of intelligent, sustainable, and human-centered tourism ecosystems.

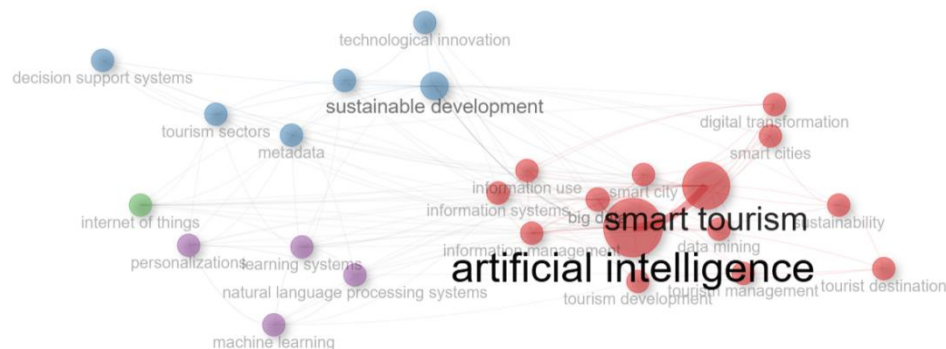


Figure 9 Co-occurrence Visualisation.

Source: Developed by Authors.

This study critically examined the research landscape of smart tourism, intelligent destinations, artificial intelligence, and digital innovation through a bibliometric analysis of 210 publications published between 2015 and 2025. The findings reveal the rapid evolution of the field from conceptual discussions of smart tourism toward advanced applications of artificial intelligence, machine learning, big data analytics, and intelligent destination management.

The analysis of influential journals reveals that research dissemination is concentrated in high-impact interdisciplinary outlets such as Sustainability, Electronic Markets, and technology-oriented conference proceedings. This pattern highlights the multidisciplinary nature of the field, where tourism research is increasingly integrated with computer science, information technology, and digital innovation studies. Similarly, the authorship analysis identified a relatively small group of highly cited scholars whose contributions have significantly shaped the intellectual foundations of smart tourism research. At the same time, the emergence of new authors indicates a growing diversification of scholarly contributions and research perspectives.

<https://unicredit-capitalia.eu/> 279

on smart tourism destinations, tourism information systems, Internet of Things (IoT), and tourism technology infrastructure. However, recent research has shifted toward more sophisticated themes, including artificial intelligence, machine learning, personalization, predictive analytics, digital transformation, and smart destination management. This thematic transition reflects the broader technological transformation occurring across the tourism industry, where data-driven decision-making and intelligent systems are increasingly central to tourism operations and visitor engagement.

The keyword co-occurrence and thematic analyses further reveal that artificial intelligence and smart tourism constitute the intellectual core of the field. These themes are strongly connected with digital transformation, smart cities, sustainability, tourism management, and user experience. Despite this progress, the literature remains somewhat fragmented, with several emerging technologies such as blockchain, predictive analytics, natural language processing, data privacy, and ethical AI receiving comparatively limited attention. As a result, much of the existing research continues to emphasize technological adoption and operational efficiency rather than broader societal, ethical, and governance implications.

The conceptual structure analysis identified four major knowledge domains: smart tourism and digital transformation, AI governance and smart cities, emerging intelligent technologies, and hospitality knowledge synthesis. While these clusters collectively demonstrate the interdisciplinary character of the field, the connections between technological innovation, governance frameworks, sustainability objectives, and human-centered tourism outcomes remain relatively underdeveloped. This suggests that future studies should move beyond purely technological perspectives and adopt more integrated approaches that consider social, ethical, organizational, and policy dimensions of intelligent tourism systems.

Overall, the findings indicate that smart tourism research mirrors broader global digital transformation trends. However, unlike mature technology disciplines, the field remains in a dynamic growth phase characterized by rapid thematic expansion, increasing interdisciplinarity, and evolving technological priorities. Consequently, future research should focus on strengthening theoretical integration, exploring emerging intelligent technologies, and examining the long-term impacts of AI-driven tourism innovations on destinations, organizations, and tourists.

Conclusion

This study provides a comprehensive overview of the intellectual development of research on smart tourism, intelligent destinations, artificial intelligence, and digital innovation between 2015 and 2025. The findings reveal a rapidly expanding and increasingly interdisciplinary research field characterized by strong growth in publication output, growing academic influence, and continuous thematic evolution. Artificial intelligence and smart tourism emerged as the dominant research themes, while digital transformation, machine learning, smart cities, sustainability, and intelligent destination management have become increasingly important areas of investigation. The results also highlight the emergence of new research opportunities

related to blockchain, predictive analytics, ethical AI, data privacy, and intelligent tourism governance.

Overall, the study demonstrates that smart tourism research is transitioning from foundational conceptual discussions toward advanced technology-driven applications that support intelligent, sustainable, and personalized tourism experiences. Future research should continue to strengthen interdisciplinary integration and explore the broader societal, ethical, and governance implications of intelligent tourism systems in an increasingly digital world.

Practical Implications

The findings of this study provide several important implications for policymakers, destination managers, tourism practitioners, technology developers, and researchers.

First, the increasing dominance of artificial intelligence, machine learning, and digital transformation themes suggests that tourism organizations should prioritize investments in intelligent technologies to enhance operational efficiency, customer satisfaction, and destination competitiveness. AI-powered recommendation systems, predictive analytics, and smart destination platforms can support more personalized and data-driven tourism services.

Second, the growing importance of smart cities, IoT, and digital infrastructure highlights the need for policymakers to develop integrated tourism and urban innovation strategies. Effective collaboration between tourism authorities, technology providers, and local governments will be essential for creating intelligent destination ecosystems that improve visitor experiences while promoting sustainability.

Third, the emergence of ethical concerns, data privacy issues, and governance-related themes indicates that technology adoption should be accompanied by robust regulatory frameworks. Tourism stakeholders must ensure responsible AI implementation, transparent data management practices, and protection of user privacy to maintain public trust in intelligent tourism systems.

Finally, the identification of underexplored topics such as blockchain, predictive analytics, natural language processing, and AI ethics suggests opportunities for future innovation and industry collaboration. Investments in these emerging technologies may support the development of more secure, efficient, and sustainable tourism ecosystems.

Scientific Contributions

This study contributes to the smart tourism literature in several ways. Empirically, it provides a comprehensive bibliometric assessment of 210 publications published between 2015 and 2025, offering a systematic overview of the intellectual evolution of smart tourism, intelligent destinations, artificial intelligence, and digital innovation research. Conceptually, the study identifies major thematic clusters and demonstrates how research has evolved from foundational smart tourism concepts toward advanced applications of artificial intelligence, machine learning, digital transformation, and intelligent destination management.

Methodologically, the study integrates bibliometric performance analysis, science

mapping techniques, thematic evolution analysis, conceptual structure mapping, and keyword network analysis to provide a holistic understanding of the field. The findings also establish a future research agenda by identifying emerging themes and underexplored areas that require further scholarly attention.

Overall, the study contributes to a deeper understanding of the intellectual structure, thematic development, and future directions of smart tourism research.

Limitations

Despite its contributions, several limitations should be acknowledged. First, the analysis relied exclusively on publications indexed in the Scopus database, which may have excluded relevant studies indexed in other databases such as Web of Science, Dimensions, or Google Scholar. Consequently, some influential publications may not have been captured. Second, only English-language publications were included in the dataset. This may have limited the representation of research conducted in non-English-speaking regions where smart tourism initiatives are rapidly developing. Third, bibliometric analysis focuses primarily on publication and citation patterns and does not directly evaluate the practical effectiveness or real-world impacts of the technologies and concepts examined within the literature. Finally, because the field is evolving rapidly, newly published studies may not yet have accumulated sufficient citations to accurately reflect their long-term scholarly influence.

References

1. Belkaid, O., & Kummitha, H. R. (2026). Artificial intelligence in sustainable tourism development a critical review of governance and managerial implications. *Discover Sustainability*.
2. Bondarenko, S., Kalamani, O., & Danilova, O. (2025). Digital transformation of the tourism business in an open economy: A comprehensive approach to travel planning and partnerships. *Social Development: Economic and Legal Issues*, 4.
3. Broadus, R. (1987). Toward a definition of "bibliometrics." *Scientometrics*, 12(5-6), 373-379.
4. Buhalis, D. (2020). Technology in tourism-from information communication technologies to eTourism and smart tourism towards ambient intelligence tourism: a perspective article. *Tourism Review*, 75(1), 267-272.
5. Buhalis, D., & Amaranggana, A. (2014). Smart tourism destinations enhancing tourism experience through personalisation of services. *Information and Communication Technologies in Tourism 2015: Proceedings of the International Conference in Lugano, Switzerland, February 3-6, 2015*, 377-389.
6. Csapó, J., & Végi, S. (2026). Navigating the nexus of innovation and insight: an umbrella review and thematic clustering of smart tourism evolution. *Current Issues in Tourism*, 29(10), 1889-1907.
7. Dixon-Woods, M., Bonas, S., Booth, A., Jones, D. R., Miller, T., Sutton, A. J., Shaw, R. L., Smith, J. A., & Young, B. (2006). How can systematic reviews incorporate qualitative research? A critical perspective. *Qualitative Research*, 6(1), 27-44. <https://doi.org/10.1177/1468794106058867>

8. Ellegaard, O., & Wallin, J. A. (2015). The bibliometric analysis of scholarly production: How great is the impact? *Scientometrics*, 105(3), 1809–1831. <https://doi.org/10.1007/s11192-015-1645-z>
9. Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: foundations and developments. *Electronic Markets*, 25(3), 179–188.
10. Gretzel, U., Werthner, H., Koo, C., & Lamsfus, C. (2015). Conceptual foundations for understanding smart tourism ecosystems. *Computers in Human Behavior*, 50, 558–563.
11. Kim, S., Chen, J., Cheng, T., Gindulyte, A., He, J., He, S., Li, Q., Shoemaker, B. A., Thiessen, P. A., & Yu, B. (2019). PubChem 2019 update: improved access to chemical data. *Nucleic Acids Research*, 47(D1), D1102–D1109.
12. Kumar, M., Subramanian, J., Gangodawilage, D., & Suresh, A. S. (2026). Bias and Fairness in AI-Driven Models of Entrepreneurial Traits Toward Equitable Innovation Ecosystems. In *Decision Making, Learning, and Collaboration in AI-Driven Entrepreneurship* (pp. 211–234). IGI Global. <https://doi.org/10.4018/979-8-2600-1353-3.ch011>
13. Kumar, M., Yadav, M., Yadav, N., Mai, H. T., Nguyen, D. D., Pham, U. M. T., Tiwari, N. K., & Amoozegar, A. (2026). Transforming human resource practices through AI-driven HRIS: a two-decade bibliometric and systematic review. *International Journal of Business Information Systems*, 52(6), 1–34. <https://doi.org/10.1504/IJBIS.2026.154988>
14. Kumar, M., Yadav, R., Suresh, A. S., Singh, R., Yadav, M., Balodi, A., Vihari, N. S., & Srivastava, A. P. (2023). Mapping AI-Driven Marketing: Review of Field and Directions for Future Research. *2023 2nd International Conference on Futuristic Technologies (INCOFT)*, 1–5. <https://doi.org/10.1109/INCOFT60753.2023.10425169>
15. Li, P., & Mahasuweerachai, P. (2026). Reshaping smart tourism through artificial intelligence: insights from a systematic review and bibliometric analysis. *Journal of Hospitality and Tourism Insights*, 1–17.
16. Moliner-Tena, M. A., Monteserín-Abella, O., Callarisa-Fiol, L. J., & Ferreres Bonfill, J. B. (2026). Smart tourist destination: a literature review and future agenda. *Journal of Hospitality and Tourism Insights*, 9(3), 1065–1085.
17. Nguyen, T. B., Kumar, M., Sahoo, D. K., Nain, N., Yadav, M., & Dadhich, V. (2025). Mapping the landscape of women entrepreneurs in micro and small enterprises: Trends, themes, and insights through systematic review and text mining. *F1000Research*, 14. <https://doi.org/10.12688/f1000research.163030.1>
18. Park, H., Park, E., Lee, S., Li, C. Y., Timofte, R., Yi, M., Zhang, C., Zhang, L., Wang, G., & Xue, Y. (2026). NTIRE 2026 Challenge on Efficient Burst HDR and Restoration: Datasets, Methods, and Results. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2278–2297.
19. Pava-Díaz, R. A., Sánchez-Céspedes, J. M., & Montoya, O. D. (2026). Unlocking Innovation in Tourism: A Bibliometric Analysis of Blockchain and Distributed Ledger Technology Trends, Hotspots, and Future Pathways. *Digital*, 6(1), 7.
20. Prieto Mejía, S., Vargas Martínez, E. E., Montes Hincapié, J. M., & Zapata-Molina, C. (2026). *Mapping innovation hubs and smart cities in tourism: A bibliometric*



- analysis. *Multidisciplinary Science Journal*, 8 (4).
21. Sağcan, M., Doğan, D., Çakmak, T. F., & Albuz, N. (2026). Artificial intelligence in tourism: a bibliometric analysis of intellectual evolution through the lens of technology acceptance and generative AI. *Worldwide Hospitality and Tourism Themes*, 1–17.
 22. Sánchez-Sánchez, A. M., Ruiz-Muñoz, D., & Sánchez-Sánchez, F. J. (2026). Trends and Challenges of Sustainable Rural Tourism in the Face of Artificial Intelligence: A Bibliometric Analysis. *Sustainable Development*, 34(1), 676–695.
 23. Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*, 14(3), 207–222. <https://doi.org/10.1111/1467-8551.00375>
 24. Wei, G. J., & Ab-Rahim, R. (2025). The current state of smart tourism research: a bibliometric analysis. *Global Advances in Business Studies*, 4(1), 1–13.
 25. Zupic, I., & Čater, T. (2015). Bibliometric Methods in Management and Organization. *Organizational Research Methods*, 18(3), 429–472. <https://doi.org/10.1177/1094428114562629>