Digitalization and sustainable tourism: A bibliometric mapping of research trends and future research directions (Scopus based 2016-2025)

Fahima BOUMEDDA-TIAB[1*]
[1] Lecturer at the University of A/Mira BEJAIA (ALGERIA)
Email : Fahima.boumedda@univ-bejaia.dz.
TEL: +213540054183

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Summary:

This study presents a systematic bibliometric mapping of research at the intersection of digitalization and sustainable tourism, based on 485 peer-reviewed articles retrieved from the Scopus database over the period 2016–2025. Employing performance analysis and science mapping through VOS viewer 1.6.20, the study addresses six research questions spanning publication trends, geographic and institutional contributions, authorship influence, journal impact, disciplinary scope, and thematic structure. Results reveal an exponential growth trajectory, from one publication in 2016 to an unprecedented peak of 231 articles in 2025, with China, Italy, and the United States as dominant contributors. Keyword co-occurrence analysis identifies six thematic clusters: digital governance and sustainable destination management, environmental sustainability and ICT-mediated development, smart tourism in emerging economies, cultural heritage digitalization, immersive technologies and virtual experiences, and digital communication in rural tourism. The field's intellectual structure is pluralistic and internally differentiated, extending well beyond the smart tourism paradigm. This study contributes the first comprehensive Scopus-based bibliometric cartography of this intersection for 2016–2025, identifies persistent geographic and institutional fragmentation, and proposes a future research agenda centered on empirical validation, cross-regional comparative analysis, and theoretical integration across thematic clusters.

Keywords: Digitalization; Sustainable tourism; Bibliometric analysis; VOSviewer; Smart tourism; Science mapping; Scopus.

Jel Classification Codes : L83 ; O33 ; Q01 ; C89 ; Z30.

* Fahima BOUMEDDA-TIAB, Fahima.boumedda@univ-bejaia.dz.

I- Introduction :

The first two decades of the twenty-first century have been defined by two transformative global imperatives: the accelerating digitalization of human civilization and the urgent reorientation of economic activity toward sustainable development pathways. The proliferation of digital technologies, spanning artificial intelligence (AI), big data analytics, the Internet of Things (IoT), blockchain, and augmented and virtual reality, has fundamentally reconfigured the operational logic of industries and societies alike (Schwab, 2016), while the adoption of the United Nations 2030 Agenda and its seventeen Sustainable Development Goals (SDGs) has institutionalized sustainability as a non-negotiable dimension of sectoral governance (United Nations, 2015). Few sectors embody the tensions and opportunities of this convergence more acutely than tourism. Prior to the COVID-19 pandemic, tourism contributed approximately 10% of global GDP and one in ten jobs worldwide, while simultaneously generating significant environmental pressures including carbon emissions, resource overconsumption, and ecological degradation (UNWTO, 2023). The concept of sustainable tourism, broadly understood as tourism that addresses the economic, social, and environmental needs of visitors, industry, environment, and host communities in balance (Bramwell et al., 2017; Liu, 2003), has occupied a central position in scholarship for over three decades (Buckley, 2012), yet its relationship with digital transformation remains deeply ambivalent: while digital platforms can enhance resource efficiency, empower communities, and enable responsible travel behavior, they may equally amplify overcrowding, accelerate commodification, and intensify environmental pressures (Gössling et al., 2020; Sigala, 2020).

Since the mid-2010s, the nature of digitalization in tourism has undergone a qualitative shift, moving beyond the early e-tourism paradigm (Buhalis & Law, 2008) toward the emergence of smart tourism ecosystems driven by real-time data integration and personalized service delivery (Gretzel et al., 2015; Buhalis & Amaranggana, 2015), and more recently toward advanced applications including augmented reality, virtual reality, AI-driven experiences, and metaverse environments. Bibliometric investigations of adjacent domains have mapped key thematic clusters encompassing smart destination management, digital marketing, cultural heritage digitalization, and technology-based tourist behavior, and have revealed that the COVID-19 pandemic catalyzed a distinct wave of research preoccupations centered on digital resilience and sustainability-oriented recovery (Donthu et al., 2021; Aria & Cuccurullo, 2017). Notwithstanding these contributions, no prior study has undertaken a focused, integrated, and replicable bibliometric mapping of the co-evolution of digitalization and sustainable tourism across the period 2016–2025, a decade encompassing the maturation of smart tourism frameworks, the disruptive intervention of the pandemic, and the subsequent acceleration of digital transformation as a sectoral resilience strategy. Bibliometric analysis, with its capacity to identify thematic clusters, trace conceptual evolution, visualize collaborative networks, and detect emerging frontiers with methodological transparency and reproducibility, constitutes the most appropriate instrument for this cartographic endeavor (Zupic & Čater, 2015).

Against this backdrop, the present study raises the following central research problem: To what extent has research at the intersection of digitalization and sustainable tourism evolved into a coherent, structured, and internationally recognized field of scholarly inquiry between 2016 and 2025, and what are the dominant thematic architectures, geographic concentrations, intellectual influences, and uncharted research territories that define its current intellectual landscape? Drawing on bibliographic data retrieved from the Scopus database, the world's most comprehensive abstract and citation index for peer-reviewed literature (Van Eck & Waltman, 2010), this study pursues three interrelated objectives: (1) to analyze the temporal, geographical, and institutional patterns of publication growth; (2) to identify the most influential authors and journals constituting the intellectual backbone of the field; and (3) to map the thematic structure and evolution of research through keyword co-occurrence and co-authorship analyses, with a view to delineating current research frontiers and proposing a structured future research agenda.

II– Methods and Materials:

II.1. Research Design

This study employs a bibliometric analysis to systematically map the intellectual structure of research at the intersection of digitalization and sustainable tourism. Bibliometric analysis is a quantitative approach to evaluating scientific literature that enables the identification of publication trends, influential actors, and thematic clusters within a given domain (Pritchard, 1969). As argued by Donthu et al. (2021), bibliometric methods are particularly well suited to rapidly expanding, multidisciplinary research fields, as they offer methodological transparency, reproducibility, and analytical breadth that conventional narrative reviews cannot match. This study adopts a two-stage bibliometric approach combining performance analysis-which examines the productivity and impact of publications, authors, journals, and countries-with science mapping, which visualizes the intellectual and conceptual structure of the field (Zupic & Čater, 2015).

II.2. Data Source and Search Strategy

Bibliographic data were retrieved exclusively from the Scopus database, which is widely recognized as the world's largest curated abstract and citation index for peer-reviewed literature, offering comprehensive coverage of journals in the social sciences, business, and management disciplines (Van Eck & Waltman, 2010). The search query was constructed using the TITLE-ABS-KEY field operator to retrieve all records in which the terms "sustainable", "tourism", and "digital" appear in the title, abstract, or author-assigned keywords: TITLE-ABS-KEY (sustainable AND tourism AND digital)

This broad initial query was designed to maximize recall across the thematic intersection of interest. The search was restricted to publications from January 2016 to December 2025, a temporal window that encompasses the consolidation of smart tourism frameworks, the catalytic disruption of the COVID-19 pandemic, and the subsequent acceleration of digital transformation as a sectoral resilience strategy. Only peer-reviewed journal articles published in English were retained, ensuring both scientific rigor and linguistic comparability across the corpus. Results were further refined to three subject areas: Business, Management and Accounting; Social Sciences; and Economics, Econometrics and Finance; in order to align the corpus with the disciplinary scope of the study.

II.3. Study Selection and PRISMA Protocol

The selection procedure followed the PRISMA 2020 guidelines (Page et al., 2021), as illustrated in Figure 1. The initial database query returned 2,280 records. Following the application of the temporal filter (2016–2025), 358 records falling outside the defined time window were removed, reducing the pool to 1,922 documents. Subsequent restriction to the three specified subject areas excluded a further 593 records (n = 1,329), and the document type filter, retaining only peer-reviewed journal articles, led to the removal of 597 additional records (n = 732). A final thematic screening based on keyword relevance, conducted to ensure substantive alignment with the dual focus on digitalization and sustainable tourism, resulted in the exclusion of 247 records. The final corpus retained for analysis comprised 485 peer-reviewed English-language articles published between 2016 and 2025.

II.4. Analytical Tools and Techniques

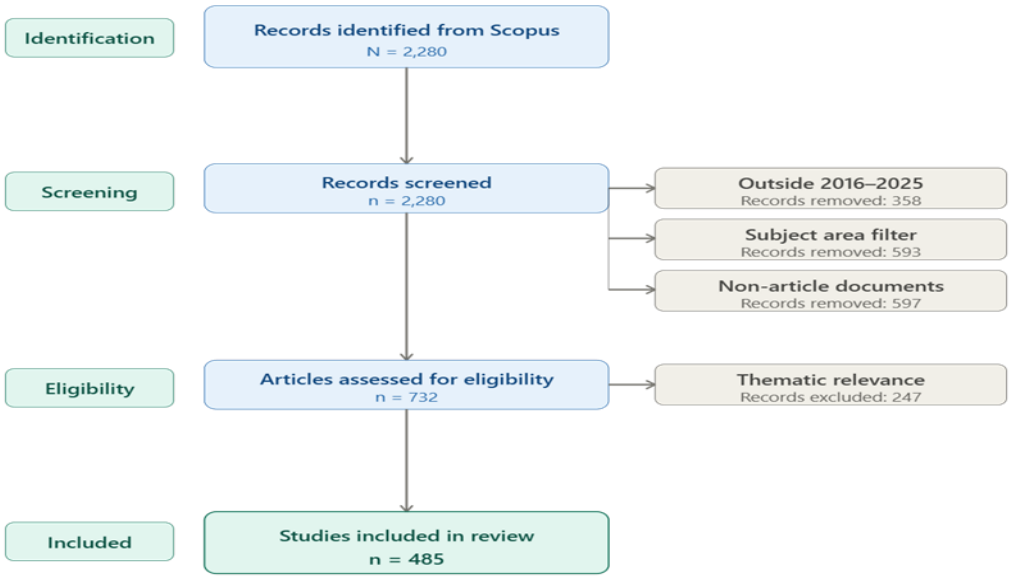
Bibliometric analyses were conducted using two complementary software tools. Descriptive performance indicators; including annual publication trends, citation counts, h-indices, and rankings of productive sources, authors, and countries, were computed and tabulated using Microsoft Excel, based on metadata exported from Scopus in CSV format. Science mapping analyses were conducted using VOSviewer version 1.6.20 (Van Eck & Waltman, 2010), a widely adopted visualization software that enables the construction and graphical representation of bibliometric networks.

Two distinct mapping techniques were applied in this study. First, a keyword co-occurrence analysis was performed using the "All Keywords" option in VOSviewer, which captures both author-assigned keywords and index keywords across the 485 articles of the corpus. This technique identifies thematic clusters by grouping keywords that frequently appear together within the same documents, thereby revealing the dominant research themes, conceptual bridges, and emerging topics within the field (Aria & Cuccurullo, 2017). The size of each node in the resulting map reflects the frequency of occurrence of the corresponding keyword, while the thickness of

connecting edges indicates the strength of co-occurrence relationships between keyword pairs. Second, a co-authorship analysis at the country level was conducted to map the geographic distribution of scholarly output and to identify the most productive nations as well as the patterns of international research collaboration. In this network, node size represents a country's total number of publications within the corpus, and edge thickness reflects the intensity of co-authorship linkages between country pairs.

Together, these two mapping techniques provide a dual-perspective cartography of the field: the keyword co-occurrence map illuminates what is being studied and how topics cluster intellectually, while the country co-authorship map reveals who is producing knowledge and where collaborative networks are concentrated.

Figure (1): PRISMA 2020 flow diagram illustrating the study selection process



Source: Author's own elaboration based on Scopus data (April 2026).

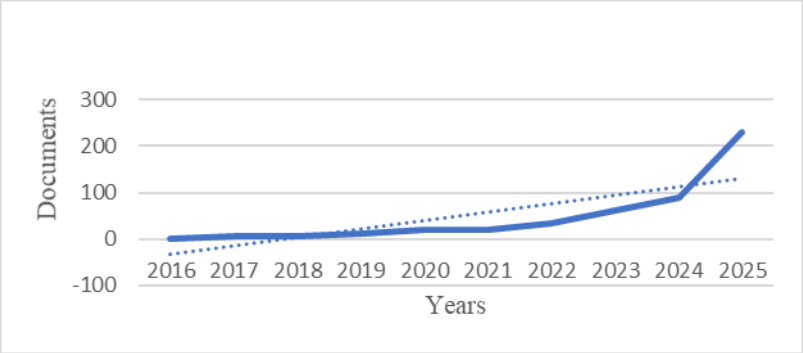
III- Results and discussion :

The bibliometric findings are organized around the six research questions and discussed in dialogue with recent empirical and theoretical contributions, including Aransyah et al. (2025), Kusumawardhani et al. (2024), Zeqiri et al. (2025), and Jokom et al. (2025).

II.1. Temporal Trends (RQ1)

Publication output grew from 1 article in 2016 to 231 in 2025, a 23,000% increase, with 47.6% of the entire corpus produced in 2025 alone (Figure 2). Growth was negligible through 2021 (1–20 articles/year), then accelerated sharply from 2022 (n = 33) through 2024 (n = 90) before peaking in 2025. Three dynamics drove this trajectory: SDG institutionalization (United Nations, 2015), the diffusion of AI, IoT, and blockchain in tourism (Schwab, 2016), and COVID-19's catalytic role, whose publication effects lagged 12-24 months, manifesting fully from 2022 onward (Sigala, 2020; Donthu et al., 2021). This pattern aligns with Aransyah et al. (2025), who report a 38.86% annual growth rate in Asian digital-sustainable tourism research, confirming a genuine post-pandemic paradigmatic shift rather than an isolated bibliometric artifact.

Figure (2): Annual publication distribution, 2016–2025

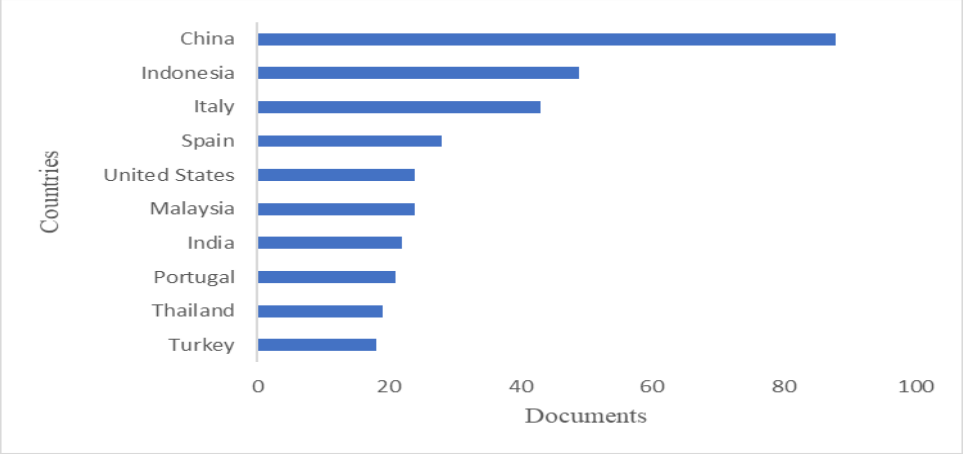


Source: Author's own elaboration based on Scopus data (April 2026).

III.2. Geographic Distribution and Collaborative Networks (RQ2)

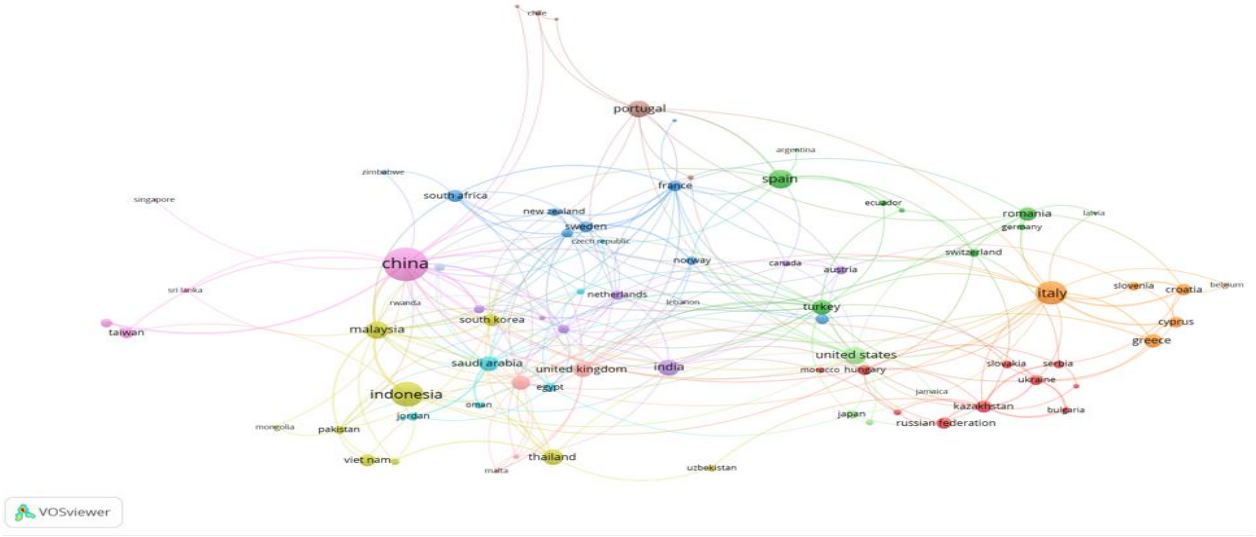
China leads with 88 publications (18.1%), followed by Italy (n = 49), the United States (n = 28), India and Spain (n = 24 each), and Thailand (n = 22) (Figure 3). Southeast Asia's growing presence, Malaysia (n = 15), Indonesia (n = 14), reflects the region's dual role as a tourism hub and an emerging research center. The VOSviewer co-authorship network (Figure 4) reveals three collaborative communities: Asia-Pacific (anchored by China), Southern Europe (Italy–Spain), and a Western anglophone cluster (UK–US–Australia). China and Romania exhibit limited cross-cluster connectivity, indicating geographically insular production patterns. These findings are consistent with Aransyah et al. (2025) and Kusumawardhani et al. (2024), who both identify China as the dominant Asian contributor (23% of smart tourism output in emerging markets), while our global scope additionally surfaces Southern European and African research communities absent from Asia-focused reviews.

Figure (3): Top 10 contributing countries, 2016–2025 (Scopus database).



Source: Author's own elaboration based on Scopus data (April 2026).

Figure (4): VOSviewer country co-authorship network map. Node size = total publications; edge thickness = co-authorship intensity.

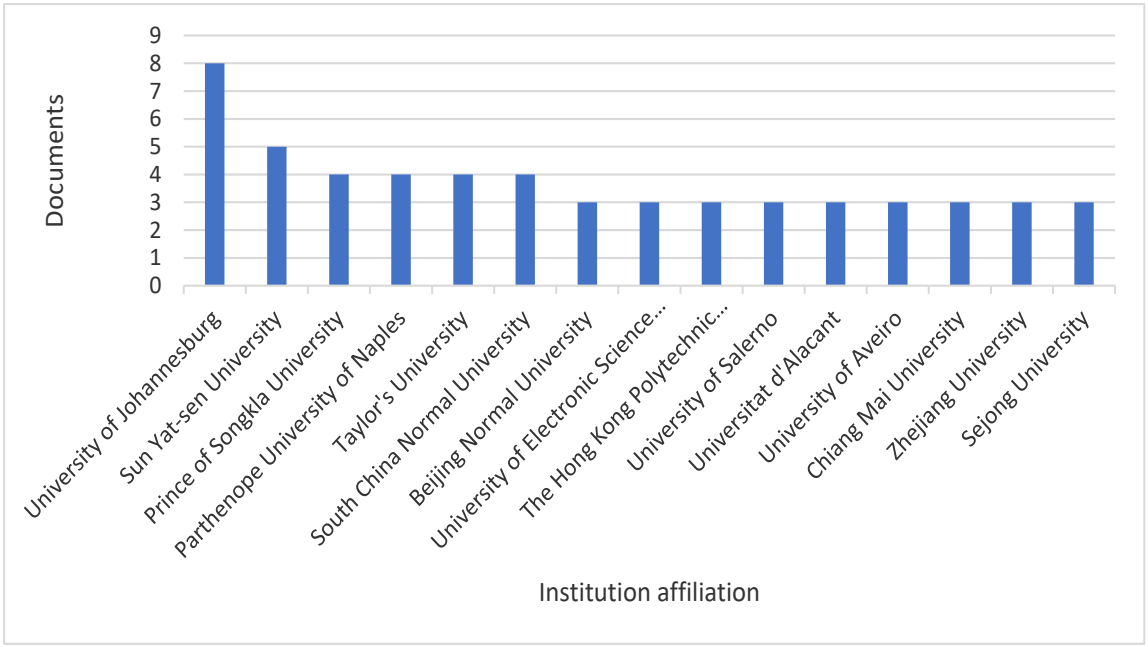


Source: Author's own elaboration via VOSviewer 1.6.20.

III.3. Institutional Contributions (RQ3)

The University of Johannesburg leads with 8 publications, an unexpected finding that positions South Africa as a notable institutional node, followed by Sun Yat-sen University (n = 5) and four institutions tied at 4 articles each (Figure 5). Nine additional institutions contributed 3 articles each. The low institutional maximum and rapid flattening of the distribution curve confirm the absence of specialized research centers. Contrary to Kusumawardhani et al. (2024), who diagnose institutional dispersion as an emerging-market condition, our global corpus reveals it as field-wide, including leading institutions from South Africa, Italy, and Malaysia, each contributing 4 to 8 articles over a decade.

Figure (5): Top contributing institutions by number of publications, 2016–2025 (Scopus database).



Source: Author's own elaboration based on Scopus data (April 2026).

III.4. Most Influential Authors (RQ4)

Table 1 presents the top 10 authors by bibliometric impact. Stefan Gössling (Sweden; TC = 18,070; H = 86) leads, with his ICT-SDGs alignment study accumulating 261 within-corpus citations, reflecting his broader standing as one of the most influential sustainable tourism scholars globally. Siamak Seyfi (Finland; H = 31) and Hui Li (China; H = 38) follow in citation impact, while Bassam Samir Al-Romeedy (Egypt; TP = 107) leads in productivity. The top 10 spans ten nationalities across four continents. The relatively modest within-corpus citations of high-H-index authors suggests that leading sustainable tourism scholars have engaged with digitalization selectively, leaving significant theoretical space for more focused contributions from emerging researchers in this nexus.

Table (1): Top 10 most influential authors.

#	Author	Country	TP	TC	H	Most Cited Article in Corpus	TC*
1	Gössling, S.	Sweden	273	18,070	86	Sharing vs. collaborative economy: ICT & SDGs in tourism	261
2	Li, H.	China	133	3,739	38	Smart destinations' sustainable performance : DEA-Tobit model	38
3	Seyfi, S.	Finland	108	3,014	31	Digital media & sustainability-driven political consumerism: Gen Z tourists	79
4	Al-Romeedy, B.S.	Egypt	107	729	18	Digital leadership & sustainable competitive advantage in tourism	81
5	Gajić, T.	Serbia	89	693	19	Turkic petroglyphs contribution to cultural tourism in Central Asia	1
6	Lemy, D.M.	Indonesia	35	221	10	Explorative study of tourist behavior in travel planning	20
7	Issakov, Y.	Kazakhstan	34	199	10	Turkic petroglyphs contribution to cultural tourism in Central Asia	1
8	Foris, D.	Portugal	25	276	9	Gastronomic heritage: contributor to sustainable local tourism	34
9	Chamboko-Mpotaringa, M.	S. Africa	13	90	4	Digital trends driving change in marketing Free State tourism destinations	16
10	Szabó, Z.	Hungary	7	39	3	Digital engagement & visitor satisfaction at World Heritage Sites, Coastal China	16

Source: Author's own elaboration based on Scopus data (April 2026).

TP = total Scopus publications; TC = total Scopus citations; H = Scopus h-index; TC = within-corpus citations of the most cited article.*

III.5. Most Influential Journals (RQ5)

Table 2reveals a dual-speed publishing landscape. Sustainability (MDPI; CiteScore = 7.7) dominates in volume, while the Journal of Sustainable Tourism (CiteScore = 20.4) and Tourism Review (CiteScore = 18.0) command citation authority. This structure, open-access mega-journals for breadth, selective specialist outlets for depth, reflects the field's simultaneous pursuit of thematic expansion and disciplinary consolidation, and points to an opportunity for editorial strategies that bridge both dimensions. The presence of the African Journal of Hospitality and GeoJournal of Tourism further signals a growing geographic diversification of publishing venues that mainstream bibliometric analyses typically overlook.

Table (2): Top 10 most influential journals

#	Journal	CS	Publisher	Most Cited Article in Corpus	TC*
1	Sustainability	7.7	MDPI	Sustainable tourism in the open innovation realm: A bibliometric analysis	201
2	Journal of Sustainable Tourism	20.4	Taylor & Francis	Sharing vs. collaborative economy: ICT developments and SDGs in tourism	261
3	Tourism Review	18.0	Emerald	Digital innovation in smart tourism destinations : 31 premier cities in China	40
4	Current Issues in Tourism	15.5	Taylor & Francis	Smart destinations' sustainable performance : A DEA-Tobit model	38
5	Worldwide Hospitality & Tourism Themes	4.9	Emerald	Phygital rural cultural heritage: destination recovery and resilience	40
6	GeoJournal of Tourism and Geosites	3.7	Univ. Oradea	Gastronomic Heritage: A Contributor to Sustainable Local Tourism Development	34
7	African Journal of Hospitality, Tourism & Leisure	3.1	Africa Journals	Digital Trends Driving Change in Marketing Free State Tourism Destinations	16
8	Tourism and Hospitality	3.7	MDPI	Impact of Digital Marketing on Sustainable Tourism Development	7
9	Discover Sustainability	2.6	Springer Nature	Role of AI assistants in promoting sustainable Halal tourism	5
10	Int'l Journal of Sustainable Dev. & Planning	2.6	IIETA	Explorative Study of Tourist Behavior in Seeking Information for Travel Planning	20

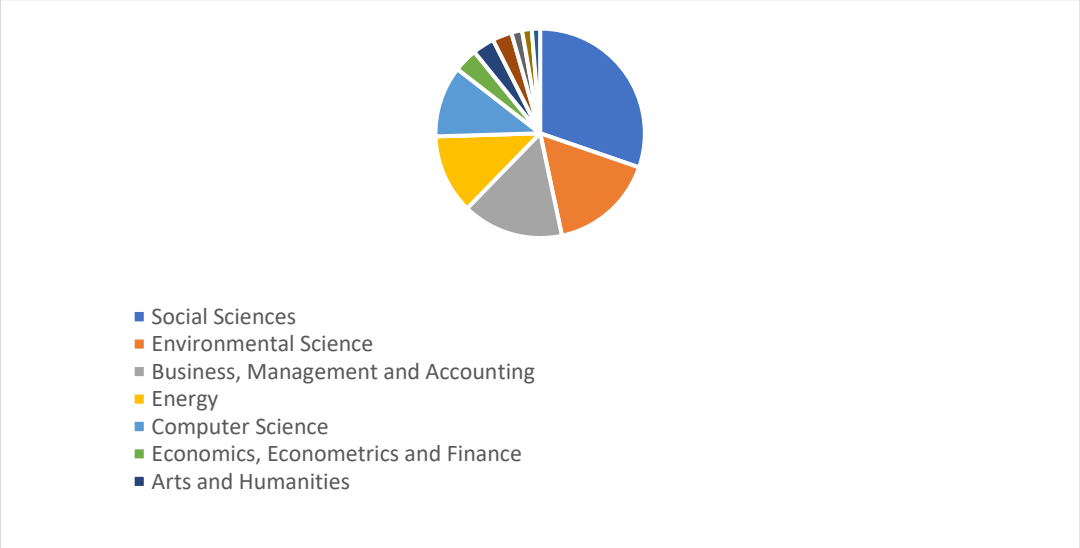
Source: Author's own elaboration based on Scopus data (April 2026).

CS = CiteScore (2021–2024, Scopus); TC = within-corpus citations of the most cited article.*

III.6. Disciplinary Scope and Thematic Clusters (RQ6)

Social Sciences (n = 403), Environmental Science (n = 218), and Business, Management and Accounting (n = 208) dominate, followed by Energy (n = 163) and Computer Science (n = 146) (Figure 6), confirming the field's genuinely interdisciplinary character.

Figure (6): Subject area distribution

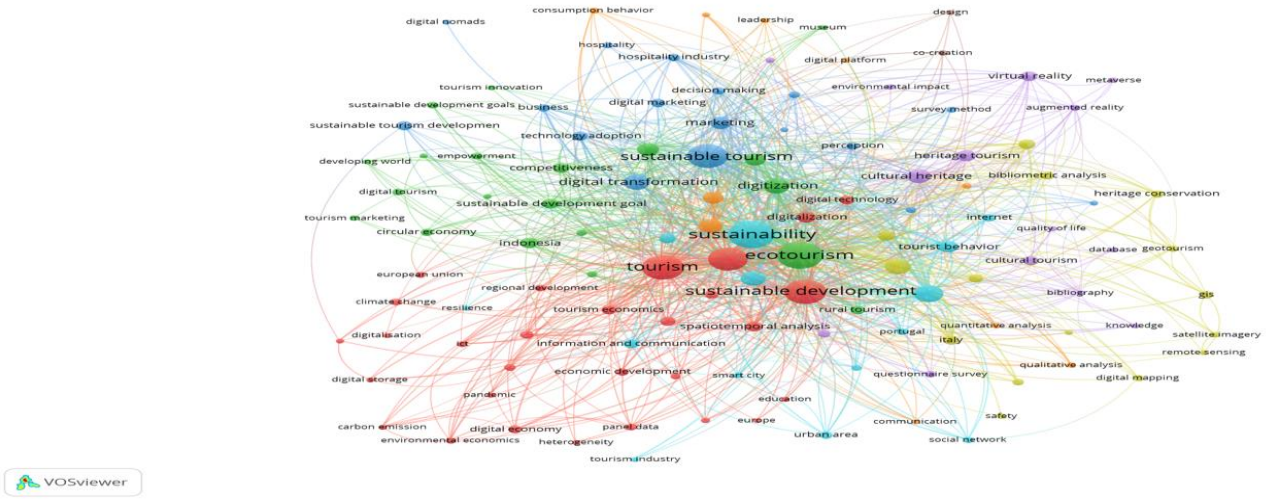


Source: Author's own elaboration based on Scopus data (April 2026).

The VOSviewer keyword co-occurrence map (Figure 7; minimum threshold = 5) identifies six thematic clusters, organized along three principal axes: governance and strategy (Clusters 1, 3); environmental, cultural, and heritage dimensions (Clusters 2, 4); and experiential and communicative frontiers (Clusters 5, 6).

- Cluster 1: Digital Transformation and Sustainable Tourism Governance (blue)**.** The conceptual core of the corpus. Anchored by sustainable tourism, digital transformation, technology adoption (TAM; Davis, 1989; UTAUT; Venkatesh et al., 2003), and SDG-aligned destination governance, its central network position confirms it as the field's primary theoretical engine, consistent with Zeqiri et al.'s (2025) five-dimension platform framework organized around governance, AI automation, and sustainability innovations.
- Cluster 2: Environmental Sustainability, Ecotourism and ICT-Mediated Development (red). Covers ICT applications for carbon emission reduction, ecotourism promotion, and digital resilience. The co-occurrence of pandemic and resilience keywords reflects COVID-19's structural role in accelerating digital recovery tools (Sigala, 2020).
- Cluster 3: Smart Tourism in Emerging Economies (green). Focuses on Southeast Asian smart destination implementation (particularly Indonesia), circular economy principles, and SDG-aligned community empowerment, consistent with Kusumawardhani et al.'s (2024) identification of smart tourism as the dominant paradigm in emerging markets.
- Cluster 4: Cultural Heritage, Geospatial Technologies and Digital Preservation (yellow). Mobilizes GIS, remote sensing, and digital mapping for heritage documentation in Southern European contexts (Italy, Portugal), addressing the tension between digital promotion and UNESCO heritage conservation. This cluster has no equivalent in Asia-focused reviews, confirming that single-region analyses systematically occlude it.
- Cluster 5: Immersive Technologies and Virtual Experiences (purple). Encompasses VR, AR, and metaverse platforms. Its peripheral network position confirms Zeqiri et al.'s (2025) assessment that VR-metaverse tourism remains conceptually rich but empirically underdeveloped; a frontier agenda still in early elaboration.
- Cluster 6: Digital Communication, Rural Tourism and Community Engagement (teal). Covers social media platforms, smart city infrastructures, and digital literacy in European rural tourism contexts. Jokom et al.'s (2025) paradoxical finding, that digital technology weakens the memorability of environmental and sociocultural tourist experiences, provides a critical behavioral counterpoint to this cluster's governance-oriented discourse, suggesting the field's aggregate emphasis on digitalization as an enabler of sustainability underestimates important experiential trade-offs.

Figure (7): VOSviewer keyword co-occurrence map



Source: Author's own elaboration via VOSviewer 1.6.20.

******All keywords, minimum co-occurrence threshold = 5 (n = 485 articles; Scopus, 2016–2025). Node size = keyword frequency; edge thickness = co-occurrence strength; colors = cluster membership.*

The six-cluster architecture is considerably richer than the three-cluster structure reported by Aransyah et al. (2025), whose regional scope occludes Clusters 4 and 6. Taken together, the findings reveal a thematically pluralistic field that has matured beyond a singular smart tourism paradigm yet requires integrative theoretical frameworks capable of bridging its six research trajectories; a need unmet by existing platform-centric or smart-destination models. The 2025 publication peak (n = 231) signals the risk of theoretical fragmentation outpacing consolidation; the field's most pressing challenge remains empirical validation of the propositions dispersed across its thematic clusters, prioritizing longitudinal and cross-cultural studies that test and integrate the intellectual architecture mapped in this study.

IV- Conclusion:

This study addressed the following central research problem: To what extent has research at the intersection of digitalization and sustainable tourism evolved into a coherent, structured, and internationally recognized field of scholarly inquiry between 2016 and 2025, and what are the dominant thematic architectures, geographic concentrations, intellectual influences, and uncharted research territories that define its current intellectual landscape?

The bibliometric mapping of 485 Scopus-indexed articles published between 2016 and 2025 provides a clear and evidence-based answer: research at this intersection has unambiguously evolved into a coherent, rapidly expanding, and internationally recognized field of scholarly inquiry. The exponential growth from 1 article in 2016 to 231 in 2025, representing a 23,000% increase over the decade,

confirms the field's transition from a nascent niche into one of the most dynamically developing domains within contemporary tourism research. Three converging forces drove this trajectory: the institutionalization of sustainability imperatives through the UN 2030 Agenda and its SDGs, the accelerating diffusion of advanced digital technologies across the tourism value chain, and the COVID-19 pandemic's catalytic role in positioning digital transformation as an indispensable instrument of sectoral resilience and recovery.

The field's intellectual landscape is structured around six thematic clusters, digital governance and sustainable destination management, environmental sustainability and ICT-mediated development, smart tourism in emerging economies, cultural heritage digitalization, immersive technologies and virtual experiences, and digital communication in rural tourism. They are organized along three principal axes: governance and strategy; environmental, cultural, and heritage dimensions; and experiential and communicative frontiers. This architecture is pluralistic and internally differentiated, extending well beyond the smart tourism paradigm that dominated earlier scholarship. Knowledge production remains geographically concentrated (China, Italy, and the United States account for a disproportionate share of output), and institutionally fragmented, with no single institution commanding more than eight publications over the decade. The most cited authors span ten nationalities across four continents, reflecting the field's genuinely global intellectual reach, while citation authority remains anchored in established specialist journals despite the volume dominance of open-access outlets.

Three limitations warrant acknowledgment. First, the restriction to Scopus and English-language publications introduces coverage biases that may underrepresent regional research communities. Second, the broad three-term search query, while maximizing recall, may include marginally relevant articles at the corpus periphery. Third, as a bibliometric study, this research maps structural contours rather than evaluating the theoretical depth of individual contributions.

These limitations point to a structured future research agenda. Five directions are proposed: longitudinal bibliometric updates to monitor whether the 2025 publication peak signals sustained growth or approaching saturation; empirical studies validating the theoretical propositions

embedded in each cluster, particularly the understudied intersections between immersive technologies and SDG governance; comparative cross-regional studies examining the institutional and policy conditions enabling digital sustainability adoption; research bridging macro-level bibliometric patterns with micro-level behavioral evidence, notably the paradoxical role of digital technology in weakening sociocultural tourist memories documented by Jokom et al. (2025); and extended bibliometric analyses incorporating non-Scopus databases and non-English corpora to capture the full geographic diversity of knowledge production.

Ultimately, this study confirms that research on digitalization and sustainable tourism has reached a level of critical mass, geographic diversity, and thematic richness that both justifies systematic bibliometric cartography and demands more theoretically integrated empirical investigation. The field stands at a productive juncture, sufficiently mature to warrant synthesis, yet sufficiently dynamic to offer abundant space for the original theoretical and empirical contributions that its rapidly expanding scholarly community is best positioned to deliver.

IV- Referrals and references:

1. Aransyah, M. F., Hermanto, B., Muftiadi, A., & Oktadiana, H. (2025). A bibliometric-systematic review of digital transformation and circular economy in sustainable tourism across Asia. Cogent Social Sciences, 11(1), 2548015. https://doi.org/10.1080/23311886.2025.2548015.

2. Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. Journal of Informetrics, 11(4), 959–975. https://doi.org/10.1016/j.joi.2017.08.007.

3. Bramwell, B., Higham, J., Lane, B., & Miller, G. (2017). Twenty-five years of sustainable tourism and the Journal of Sustainable Tourism: Looking back and moving forward. Journal of Sustainable Tourism, 25(1), 1–9. https://doi.org/10.1080/09669582.2017.1251689.

4. Buckley, R. (2012). Sustainable tourism: Research and reality. Annals of Tourism Research, 39(2), 528–546. https://doi.org/10.1016/j.annals.2012.02.003.

5. Buhalis, D., & Amaranggana, A. (2015). Smart tourism destinations enhancing tourism experience through personalisation of services. In I. Tussyadiah & A. Inversini (Eds.), Information and communication technologies in tourism 2015 (pp. 377–389). Springer. https://doi.org/10.1007/978-3-319-14343-9_28.

6. Buhalis, D., & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the internet-The state of eTourism research. Tourism Management, 29(4), 609–623. https://doi.org/10.1016/j.tourman.2007.01.018.

7. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319–340. https://doi.org/10.2307/249008.

8. Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. Journal of Business Research, 133, 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070.

9. Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: A rapid assessment of COVID-19. Journal of Sustainable Tourism, 29(1), 1–20. https://doi.org/10.1080/09669582.2020.1758708.

10. Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: Foundations and developments. Electronic Markets, 25(3), 179–188. https://doi.org/10.1007/s12525-015-0196-8.

11. Jokom, R., Semuel, H., & Wijaya, S. (2025). Sustainable tourism experiences: The role of digital technology and government support in creating tourists' memorable experiences. Cogent Business & Management, 12(1), 2482026. https://doi.org/10.1080/23311975.2025.2482026.

12. Kusumawardhani, Y., Hilmiana, H., Widianto, S., & Azis, Y. (2024). Smart tourism practice in the scope of sustainable tourism in emerging markets: A systematic literature review. Cogent Social Sciences, 10(1), 2384193. https://doi.org/10.1080/23311886.2024.2384193.

13. Liu, Z. (2003). Sustainable tourism development: A critique. Journal of Sustainable Tourism, 11(6), 459–475. https://doi.org/10.1080/09669580308667216.

14. Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. BMJ, 372, n71. https://doi.org/10.1136/bmj.n71.

15. Pritchard, A. (1969). Statistical bibliography or bibliometrics? Journal of Documentation, 25(4), 348–349. https://doi.org/10.1108/eb026482.

16. Schwab, K. (2016). The fourth industrial revolution. World Economic Forum.

17. Sigala, M. (2020). Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. Journal of Business Research, 117, 312–321. https://doi.org/10.1016/j.jbusres.2020.06.015.

18. United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. United Nations. https://sdgs.un.org/2030agenda.

19. UNWTO. (2023). International tourism highlights: 2023 edition. World Tourism Organization. https://doi.org/10.18111/9789284425730.

20. Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. Scientometrics, 84(2), 523–538. https://doi.org/10.1007/s11192-009-0146-3.

21. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly, 27(3), 425–478. https://doi.org/10.2307/30036540.

22. Zeqiri, A., Ben Youssef, A., & Maherzi Zahar, T. (2025). The role of digital tourism platforms in advancing sustainable development goals in the Industry 4.0 era. Sustainability, 17(8), 3482. https://doi.org/10.3390/su17083482.

23. Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. Organizational Research Methods, 18(3), 429–472. https://doi.org/10.1177/1094428114562629.

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