International Journal of Social Science and Human Research

ISSN (print): 2644-0679, ISSN (online): 2644-0695

Volume 09 Issue 10 October 2026

DOI: 10.47191/ijsshr/v9-i10-53, Impact factor- 8.361

Page No: 9023- 9028

Scientific Research on Smart Tourist Destinations: A Bibliometric Analysis and Outlook for Puerto Vallarta, Mexico (2022-2026)

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ABSTRACT: A wide range of literature addresses scientific research on this topic, focusing on the implementation of AI technologies in sustainability and tourism. The objective is to describe the scientific research on smart tourism destinations (STDs) from 2022 to 2026, based on: document type, analysis category, publishers, year of publication, countries, and language. Method: A bibliometric analysis was conducted in the Web of Science database using the English search query "Research on smart tourist Destinations" across all fields from 2022 to September 2026. Results: 523 publications were found by document type, of which 460 were original articles, 38 were procedural documents, 24 were review articles, and one fell into other categories. The categories are Hospitality, Leisure, Sport and Tourism (237), Environmental Studies (55), Environmental Sciences (52), Management (51), and other categories. The publishers are Taylor and Francis (83), Emerald Group Publishing (74), MDPI (65), Elsevier (52), and Springer Nature (50), among others. The countries with the highest scientific output include People R China (112), Spain (84), Malaysia (42), India (30), and South Korea (26), among others. The years with the highest output are 2025 (119), followed by 2022 (106), 2024 (104), 2023 (100), and 2026 (96). The predominant language is English (497), followed by Spanish (16), Portuguese (8), Italian (1), and Russian (1). Conclusions: Publications in Mexico are not reflected here, there are a negligible number of publications in Puerto Vallarta (1), and it is proposed that research on this topic must be increased. Furthermore, Smart Tourist Destinations (STD) are typically coastal and require a high investment cost to qualify for this designation. On the other hand, Puerto Vallarta is a significant coastal tourist destination in Mexico and needs to adapt to digital global context.

KEYWORDS: Digital transformation, ICT, Digital tourism, Territory, Information and Communication Technologies.

INTRODUCTION

This study is part of the Doctoral Degree Program in Sciences for Development, Sustainability, and Tourism at the University Center of the Coast, University of Guadalajara. It aims to contribute to increasing scientific output and research within the institution on topics related to tourism, digital transformation, and Smart Tourism Destinations (STDs).

Digital technologies are constantly contributing to the creation of collaborative networks among all stakeholders in marketing and the tourism industry through artificial intelligence (AI), integrating to create value, as well as improving and increasing the competitiveness of tourist destinations. The relationship between ICTs and smart tourist destinations can be analyzed, encompassing the interaction with information and knowledge among tourists, as well as tourism representatives (Pereira, LD. & Biz, AA. 2023).

Different literature shows the scientific production on applications for smart tourist destinations (STD), in a review of 28 articles indexed in Web of Science with bibliometric analysis, the most-cited studies fall into five groups. Based on the authors and origins of the published scientific journals, sustainability is also emphasized as a secondary theme in this review, and a gap is observed in research and opinions supporting smart tourism destinations (Sampaio, EAD. & Braga, DC, 2023).

It is observed that destinations such as Benidorm, San Sebastián, Gijón, Málaga, the island of Tenerife and Santander were designed as smart, which required a high investment cost and is only accessible to major destinations with sufficient resources; indeed, of the 50 Spanish provinces, only eight are Smart Tourist Destinations and these are located in coastal areas (Florido-Benítez, L. 2024).

To understand the interconnection between ICTs, tourism development and new smart destinations, some results show that nine out of ten tourists agree that destination intelligence should be used in the unique design of these smart destinations, noting that emerging and smart technologies are clearly related to tourism choices and destination geography (Ortega, J. & Romo, E. 2022).

This article expands the knowledge of smart destinations by drawing on stakeholders hypotheses and diverse points of view of researchers, managers, tourists and local residents, adapting an integrative approach, the analysis also serves to describe the

destinations where elements such as space, infrastructure, technology, quality of life and sustainability are integrated, while also examining the differing viewpoints of tourists and local people (Cerdá-Mansilla et al., 2024).

With a technological focus, smart tourism is being developed to drive entry into a hybrid world where the social sciences and neuroscience converge, demanding a perspective from diverse fields, research areas and methodologies. The study of Smart Tourism Destinations (STDs) emphasizes the importance of a holistic vision that integrates various approaches and lines of research. It is necessary to approach this topic from a transdisciplinary standpoint and open the door to research from the Global South, as a school of neurotourism has emerged that is primarily composed of actors from the Global North (Cardoso, L. & Fraga, C., 2024).

Regarding the methodologies used in DTI studies, qualitative approaches stand out, including interviews, focus groups, analysis of public documents and institutional reports, as well as systematic and non-systematic bibliometric reviews. The rise in research on this topic has been identified since 2022, and its impact is still emerging. Qualitative methodology is the most frequently applied in DTI studies; however, it is still underutilized (Vaz et al., 2025).

Contextual Dimension:

It is necessary to understand the different actions taken by tourism industry representatives in managing tourism within new digital environments and to be able to accurately manage these destinations, which require vast resources and human capital to analyze all the involved areas, which are constantly changing and must be analyzed and mining of large amounts of data (Herasimovich et al., 2024).

As noted previously, it is important to point out that the Smart Tourist Destinations model encompasses different perspectives that must be addressed; these include the views and perceptions of tourists, locals, academics, companies, institutions, and government, among others. However, some of the studies reviewed focus on the perception of both tourists and locals, so this topic requires a holistic approach, that highlighting the characteristics of technology and sustainability (Cerdá et al., 2024).

Although there is definitive evidence from the socio-ecological model that proposes places or stays in residential environment based on people´s behavior, the effects of residential tourism groups and their travel experience in these smart tourist destinations remain unknown; which is why the aim is to perceive and utilize them as models of noteworthy proposals; the study identifies effective tools for the interaction and customization of smart tourism capital and technologies (Shin et al., 2023).

The results of this research open doors to future lines of study, emphasizing the use of the latest technological advances in multiple fields related to Smart Tourism. Destinations. This analysis expands on scientific research and provides a new model for these destinations, which are primarily based on accessibility, sustainability, digitization, co-creation of experiences and creativity (Gursoy et al., 2024).

Based on the role of tourism within the framework of the 2030 Agenda for Sustainable Development, there is a clear need to incorporate sustainable policies that contribute to development by ensuring accessibility of technologies and improving the quality of society. Tourism services and products have the capacity to adapt rapidly in an environment of diverse changes, including technological advancements, which helps facilitate the expansion of the smart tourism model (Arbidane et al., 2023).

Smart and cultural tourism requires Industry 4.0 technologies for planning, marketing, management, and for implementing changes in its organizational culture.

Artificial intelligence, big data analytics, the Internet of Things, blockchain, cloud computing, and virtual and augmented reality are some of the ICTs necessary for this model to function effectively. However, specific funding is required to implement this technology and establish digital connectivity among all stakeholders (Jankova et al., 2023).

When studying the concept of Smart Tourism Destinations in relation to sustainability, the pillars of governance, technology, innovation, and accessibility are reviewed to enhance tourism competitiveness. Sustainability metrics are identified in different areas: economic, environmental, and social; which promote sustainable solutions in the tourism sector (Azorín et al., 2022).

Overview of the Current State of the Issue

To assess the current state of "Scientific Research on Smart Tourist Destinations" in the context of higher education, a descriptive bibliometric literature analysis was conducted using the Web of Science (WOS) digital platform, focusing on the most recent scientific research (from the past five years). WOS is a collection of databases containing bibliographic reference and citation from periodicals that collect information from 1900 to the present. It consists of the Core Collection, which includes indexes for Science, Social Sciences, and Arts and Humanities, as well as conference proceedings in both the science and social sciences, along with tools for analysis and evaluation, such as the Journal Citation Report and Essential Science Indicators.

The search cutoff date was September 30, 2026; the search terms were based on the English phrase “Research on Smart Tourist Destinations.” The search was limited to titles, and the report includes only the publications from July 2022 to September 30, 2026. The bibliometric indicators of scientific activity were classified according to the tools available in WOS, such as document types, WOS category, editors, as well as scientific output by year, production by country or region and publications languages.

RESULTS

A total of 523 publications were identified by document type; of these, 460 were original articles, 38 were procedural documents, and 24 review articles, among others. **See Table 1.**

Table 1. Document Type	Number of Publications 523	100%
Original articles	460	87.95
Procedural documents	38	7.26
Review articles	24	4.58
Among others	1	0.19

The categories are: Hospitality, Leisure, Sports and Tourism (237), Environmental Studies (55), Environmental Sciences (52), Management (51), among others. **See Table 2.**

Table 2. WOS Category	Number of Publications 523	100%
Hospitality, Leisure, Sport and Tourism	237	45.31
Environmental studies	55	10.51
Environmental sciences	52	9.94
Management	51	9.75
Among others	128	24.47

The main publishers are Taylor and Francis (83), Emerald Group Publishing (74), MDPI (65), Elsevier (52), Springer Nature (50). Among others. **See Table 3.**

Table 3. Editors	Number of Publications 523	100%
Taylor and Francis	83	15.86
Emerald Group Publishing	74	14.14
Mdpi	65	12.42
Elsevier	52	9.94
Springer Nature	50	9.56
Among others	199	38.04

The countries with the highest scientific output are People R China with 113, Spain (84), Malaysia (42), India (30), South Korea (26), and Mexico (1), among others. **See Table 4.**

Table 4. Country of origin of Publications	Number of Publications 523	%
People R China	112	21.41
Spain	84	16.06
Malaysia	42	8.03
India	30	5.73
South Korea	26	4.97
Among others	229	43.78

The years with the highest production are 2025 (119), followed by 2022 (106), then 2024 (104), in 2023 there are (100) and in 2026 there are (94). **See Table 5.**

Table 5. Year of Publications	Number of Publications 523	100%
2025	119	22.75
2022	106	20.26
2024	104	19.88
2023	100	19.12

2026	94	17.97

The predominant language is English (497 publications), followed by Spanish (16), Portuguese (8), Italian (1), and Russian (1). **See Table 6.**

Table 6. Language of Publications	**Number of Publications** 523	**100%**
English	497	95.02
Spanish	16	3.05
Portuguese	8	1.52
Italian	1	0.19
Russian	1	0.19

CONCLUSIONS

The analysis of scientific output related to smart tourism destinations reveals a negligible number of publications in Mexico (4) and in Puerto Vallarta (1). Therefore, increasing research in this area would help bridge the information gap in the subject. This topic must be addressed using a transdisciplinary approach. Additionally, more qualitative studies are needed to explore the topics in greater depth.

Interest in this topic increased in 2022, as the number of publications on STD began to rise that year. This period was marked by the very specific context of the COVID19 pandemic, which may have contributed to this surge in interest in the concept.

However, as technological advances and digital tools emerge, a greater number of research outputs are observed, and 2025 saw the highest number of studies conducted on this topic.

An interesting example of a Smart Tourism Destination (STD) was also found in Spain; these destinations are typically coastal and require a high investment to qualify for this designation. On the other hand, Puerto Vallarta is a significant coastal tourist destination in Mexico; it is among the most visited by both foreign and domestic tourists.

RECOMMENDATION AND FUTURE WORK

To increase knowledge and publications in the area, particularly in Puerto Vallarta, Mexico, where only one study on the topic was found, so it is necessary that Latin American countries, and especially Mexico and Puerto Vallarta, to have a greater presence in these areas, given that this destination is of international stature.

Puerto Vallarta is a Mexican tourist destination with a strong international and national presence; it is a coastal area and has characteristics of a traditional tourist destination model that requires strategic work with a sustainable approach so that it can adapt to the technological demands of the global agenda.

Technological advancement is occurring at a rapid pace and is requiring both societies and tourist destinations to adapt and take advantage of technological tools for the benefit of both locals and tourists.

The proposal is to implement ICTs with 4.0 technology to promote sustainable, accessible tourism, that, with the support of governance and technological focus, continuously improves and innovates to enhance conditions of the locals of a destination, but also of its visitors.

There are digital gaps that need to be addressed between societies and tourism companies; through comprehensive efforts and open governance, should aim to improve sustainable strategies in tourist destinations in Mexico, Spain and the world.

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