

From Shrines to Strategy: The monitoring a Temple Management Research Landscape a bibliometric analysis

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ABSTRACT Temples are complex institutions that work at the crossroads of religion, culture, governance, and economics. They control vast amounts of resources; plan and coordinate large events; and contribute significantly to local economies through the heritage tourism industry. The scholarly interest in temple management has been substantial in recent years, however, the literature has been published across a number of different disciplines (tourism studies; heritage conservation; religious studies; organizational management); to date, no complete mapping of the intellectual structure of this research field exists. This study examines the current research landscape; it intends to provide a detailed map of trends in temple management literature published over the years, the geographic distribution of research, influential journals and authors, thematic clusters of work and collaborative networks, and will also identify research gaps and areas for future research. A systematic bibliometric study was performed using 228 academically accepted, peer-reviewed journal articles sourced from the Scopus database covering the timeframe of 2010-2025. Articles were identified using two keywords: "temple" AND "management." The dataset underwent a multi-stage filtering process based on year of publication, subject area, type of publication, language and country of affiliation. Data analysis included the use of VOSviewer for co-authorship/co-occurrence analysis as well as generating visualisations of networks within the data set. Publications output considerably increased between 2023 and 2022 in most countries studied (Thailand, India, United States, China). Overall, there were four major thematic clusters identified by the data: 1) Tourism Management; 2) Preservation of Cultural Heritage; 3) Heritage of Southeast Asia; 4) Social Science Research. A clear pattern was noted in the co-authorship networks where publication co-authors tended to be within their country and a low percentage were international authors. A number of "critical gaps" were found with regard to AI/smart technology use, climate change adaptation, gender issues, and financial governance. Temple Management is evolving rapidly and, as a multidisciplinary field of study, presents numerous opportunities for researchers to develop new ideas and create knowledge, particularly in terms of facilitating the use of technology, promoting sustainable environmental practices, and utilizing inclusive governance approaches.

Keywords: Temple and Management.

1. Introduction

For thousands of years, civilizations all over the world have built temples, which were the most important parts of cultural, spiritual, and socio-economic lives. Temples are more than just places of worship; they are also complex organizations that manage many resources, organize large events, engage with many different groups of people, and create a significant value for their local and national economies through heritage tourism and community development [1]. In the last few decades, there has been an increase in visitor footfalls, changing governance frameworks

(expectations), and various pressures associated with urbanisation in modern society. This has led to a growing amount of scholarly interest in how temples are managed, funded and sustained. However, despite this increased interest in temple management, no one has yet developed a comprehensive mapping of the temple management research landscape, leaving many scholars with no clear idea of the intellectual structure of the field, how it has evolved and the possible future directions of the field. Due to this landscape developing, there is a growing need for the development of systematic and evidence-based approaches to temple governance because a lot of religious institutions around the world are facing many challenges such as financial transparency, crowd management, digital transformation, and heritage preservation. In addition, many governments and trusts that are responsible for administering temples have recently had to use management frameworks drawn from mainstream management sciences, such as stakeholder theory, service quality models, and organizational behaviour theories. Unfortunately, the existing literature on temple management is fragmented across many different fields of study such as tourism, religion, public administration and heritage management, which has made it challenging for researchers to identify some core themes and key players. Quantitative bibliometric analysis provides an effective framework for addressing these types of challenges through the systematic analysis of publication metadata (e.g. author(s), citation patterns, keyword co-occurrence, and affiliation) related to each publication. Bibliometric studies can reveal the structural and dynamic characteristics of a research field or discipline through the systematic examination of the data. Unlike traditional literature reviews which are often based on subjective selection of studies and narrative descriptions of the studies selected, bibliometric analysis provides reproducible data-based information about the ways knowledge is created, shared, and interrelated within a discipline. The methodology has been used extensively in the fields of management and social science to create maps of new research fields and find areas where further research is needed [2]. This research uses VOSviewer, a widely used bibliometric analysis software, to examine the field of temple management research. VOSviewer is able to create maps to show co-authorship, co-citation, and keyword co-occurrence which help the researcher identify thematic clusters, identify influential publications, and follow the historical development of scholarly conversations within a discipline [3]. The data for this study were collected from Scopus, one of the world's largest curated abstract and citation databases of peer-reviewed research publications. The records in Scopus provide comprehensive and quality coverage of relevant publications. The purpose of this research is threefold: to identify trends in publishing, geographic distribution of publications, and institutional contributions related to research about temples; to identify key journals, authors, and documents that have influenced research about temples; and to utilise co-occurrence and co-citation analysis of keywords to determine key themes in current research and identify new research areas. With these objectives, this study will provide a framework for future research and assist practitioners and policymakers in developing evidence-based approaches to governing temples.

2. Review of literature

2.1 Temple Management: An Evolving Scholarly Domain

Temples have always played a unique role where religion, culture, governance, and economics intersect. Although temples are very seldom studied from the perspective of tourism, public administration, and strategic management; those approaches have only recently gained attention by researchers pursuing temple management. [4] looked at Balinese water temples as examples of complex adaptive systems in cooperative irrigation through local farming communities. In doing so they illustrated that governance by temples reaches beyond spiritual governance to also include resource allocation and sustainable ecological development. Their article, published in *Human Ecology*, demonstrates how temples operate as "organizational entities" within larger socio-ecological networks and therefore require interdisciplinary approaches for understanding their functioning. In India, temple management is the focus of much more scholarly research than

is typically seen in any other country. Indian temples as a collection manage numerous assets worth billions of U.S. dollars; attract millions of pilgrims each year; and employ thousands of individuals, including priests and non-priest staff performing administrative duties. [5] conducted a comprehensive evaluation of urban heritage management in Kumbakonam, a famous temple town located in Tamil Nadu, illustrating how rapid urbanization has created a conflict between continuing the preservation of sacred architectural landscapes while simultaneously meeting urbanization demands. Furthermore, similarly, other researchers examined urban historic temple precinct revitalisation as a method of stakeholder participation and socio-culture assessments within sustainable conservation. More recently, recent studies evaluated the heritage management of the Subaiee Temple (an ancient Jain temple located in Odisha) and argued for a greater degree of public archaeology included in temple conservation strategies. Moving to Southeast Asia, the region offers additional valuable examples. [6] conducted research into the management of Buddhist temples for religious tourism in Songkhla Province, Thailand, finding that effective management of Buddhist temples' requires balancing the institution's spiritual mission with the demands of an increasingly diverse public visitor group. [7] researched the Borobudur Temple (located in Indonesia) and demonstrated that visitor expectations/experiences are significantly impacted by perceived value and management of visitors. These findings, which were published in the *Journal of Heritage Tourism*, received 68 citations indicating that researchers are interested in the visitor experience in managed religious sites. Subsequent research analysed community participation tourism governance at Borobudur Temple following COVID-19 and advocated for conservation-based approaches that promote active participation of the local communities in decision-making.

2.2 Religious Tourism and Pilgrimage Management

The concept of religious tourism is one of the oldest forms of travel, and there is a significant research body related to the relationship between temple management and religious tourism. One of the most frequently cited articles on this topic is [8], which has been cited 539 times, who study tourist relationships with destinations (temples) through their destination image, destination personality, and destination loyalty and created a structure to help us better understand how tourists develop connections to heritage destinations, especially those containing sacred buildings like temples. In a related study, Baniya and et al in 2021 conducted a sentiment analysis and topic analysis of the experiences of tourists at Angkor Wat and found that the way managing sites impacted the tourist's level of satisfaction with the site and also the tourist's online reputation of the site. As a unique form of religious tourism, pilgrimage can present unique challenges associated with managing crowds, creating infrastructures, and preserving the spiritual experience. In Wu, study in 2019 on what creates pilgrim supportive intentions; they found that celebrity attachment, experiential motivation, and experiential relationship quality were the main drivers. Lin in 2021, researched stakeholder salience in religious tourism as it relates to the Dajia Mazu pilgrimage in Taiwan. He used Fuzzy Analytic Hierarchy Process methods to illustrate that different individuals within a stakeholder group have different amounts of power, legitimacy, and urgency in influencing pilgrimage governance. This study was just because it is so new. Both health and safety issues related to pilgrimage management have been analyzed. Joseph et al. outlined possible health issues due to mass gatherings at Sabarimala pilgrimages occurring in Kerala, India, by developing a crowd management framework for use at religious sites through a risk-indexing system. from an ethnographic study, identified potential health risks to religious tourists visiting Hindu temples and highlighted the significance of the health, public safety, and heritage preservation elements associated with managing pilgrimage sites. In short, temple management isn't purely an administrative activity, but rather, it encompasses multiple aspects including public health, risk management, and the safety of patrons. Manhas and Nair in 2020 examined the strategic importance of religious tourism to the Indian tourism industry, which will aid in recovery following the COVID-19 pandemic by utilizing Faulkner's crisis management

model to suggest that religious circuits can develop through the PRASAD and Swadesh Darshan programs to encourage domestic tourism. It is studied in religious tourism related to Mazuism practices in Taiwan with a focus on Dajia Jenn Sui Lann Temple, finding strong correlations between visitor satisfaction and behavioral intention due to perceived quality of service, destination image, and perceived value. Hermawan has identified methods to help transform Borobudur into a dedicated Buddhist religious tourist site, and opined that religious tourism frameworks will be beneficial for preserving both heritage sites.

2.3 Cultural Heritage Conservation and Sustainable Development

The conservation of temples intersects with broader issues such as sustainable development, community participation, and environmental stewardship. According to Jimura [9], a detailed case study of sacred sites and pilgrimage routes in the Kii Mountains of Japan showed that local management of sacred sites and community involvement in management are influenced by World Heritage Site designation by UNESCO. This study continues to be one of the most significant advancements in understanding the relationship between sacred site management at the local level and international recognition of heritage [10] examined how cultural heritage and community resilience interacted in volcanic regions affected by disasters, arguing that heritage assets like temples provide a source of community capital that can enhance community responses to natural disasters. Their article in *Environmental Science and Policy* has received 50 citations and has extended the conversation on temple management into the realm of disaster risk reduction. Tamrakar and Parajuli in their findings have documented the challenges faced in conserving historic temples located along the Thapathali-Teku stretch of the Bagmati River in Kathmandu, Nepal, as threats posed by urbanization, polluted waterway, and inadequate institutional frameworks threaten the heritage value of the temples. Arce et al. (2024) provided structural analysis of how the sympathetic restoration of the Gopinath Temple in Kathmandu following the 2015 Gorkha earthquake illustrates how engineering assessments can be used as a basis for heritage conservation practice in regions of high seismicity. Research on environmental conservation at holy places is now a new area of study. A number of authors have done research on sacred areas and how they're connected to the environment and biodiversity. Examples include: Prashanth Ballullaya and others published a study about what motivates different communities to care about the environment in the context of temples and sacred lands in South India. They found that people living in both rural and urban areas value the way the land around a temple strengthens and supports local communities and ecological systems. Gopal and others published research looking at the effects of urbanisation on sacred sites, including the biodiverse ecosystems that are often found in temples and how they are tied to urban ecological systems. The team found that sacred sites provide unique types of parks and greenspaces that are important to the ecological service that these cities provide for their residents. Shi and others published research that looked at how to value cultural ecosystem services (i.e., results of natural systems) in a developing town in Gaoqu, China, using various layers of influence as well as local attitudes toward cultural value at sites with temples and other sacred landscapes to help determine where those sites would be best developed. All of this literature demonstrates how the management of temples and sacred landscapes intersects with multiple fields of environmental science and the practice of ecological conservation. To further develop the relationship between urban sacred landscapes and social-ecological systems, Abdurahiman developed a case study on the Tali Temple Pond ecosystem in India, which shows how the knowledge held by temple administrators about the local ecology can help inform how cities can best incorporate green infrastructure into their plans. Another area of study recently published is the integration of the concepts of green industry into the management of cultural heritage micro-, small-, and medium-sized enterprises located in the cultural heritage zone around Borobudur Temple. A recent article on cave temple murals looked at their conservation with the opening of entrances in different climate zones to provide additional support.

2.4 Digital Transformation and Visitor Experience

Temple Management's Digital Transformation as an Emerging Area of Research According to [11], the literature on digital transformation in temple management is relatively new. Researchers examined UNESCO heritage sites in Indonesia, such as Borobudur and Prambanan, by looking at the evolution of digital heritage platforms from Web 1.0 to Web 4.0. Their research highlighted that involving the local community, academics, and government agencies can enhance the effectiveness of sharing heritage. The second most cited paper in this study, by [12], has 317 citations. It analyzed TripAdvisor reviews for attractions in Phuket, Thailand, to show that text analytics and latent Dirichlet allocation techniques can help understand visitor opinions at heritage sites. Later, researchers used quantitative text mining and big data techniques to assess tourist satisfaction at Buddhist temples in Busan, South Korea, by extracting insights from online reviews. A recent study explored visitor engagement and cultural identity using the Konark Sun Temple in India as an example. It found that a visitor's loyalty to a heritage site is influenced by the site's significance, emotional value, and economic value. Finally, another study looked at how sustainable lighting design for Suan Dok Temple, Lanna Buddhist architecture in Chiang Mai, Thailand, can act as a design intervention to improve the cultural tourism experience while supporting sustainability.

2.5 Governance, Stakeholder Engagement, and Institutional Frameworks

People who study how organizations work and how they affect the community have learned a lot about temples. How they are managed. These people made a guide to help us understand what makes museums and heritage organizations special by looking at temples and other places of worship. Some researchers looked at how church leaders have helped create tourism based on faith like the Church of Jesus Christ of Latter-day Saints. They found that leaders of these organizations can help create tourism at temples and other places of worship [13]. Some other people found out that Buddhist temples can be very meaningful for visitors by studying the experiences of people who visited the Donghua Zen Buddhist Temple. They wrote about this in a magazine called *Tourism Management* and a lot of people referenced their work. A study looked at the history of the Temple of Olympian Zeus in Athens. How it was destroyed and used again. This study can help us learn how to take care of buildings and heritage sites. Another study looked at how people who live near the Temple of Heaven in Beijing use the site and how visitors use it. They said that it is important to make sure that the people who live near the site can still use it for fun while also making sure that tourists have an experience. Then another study looked at the site but this time they talked to the people who live near the Temple of Heaven. They found out that to take care of a temple site we need to listen to what the people who live near it think as well as what the visitors think. Some other people studied the Guangrenwang Temple. How it was changed and they looked at the problems that happened when people from different cultures had different ideas about how to develop the site. They wanted to find a way to make sure that heritage sites are managed in a way that's good, for everyone.

2.6 Research Gaps and the Need for Bibliometric Mapping

The information about temple management is growing fast but there are still big gaps in what is known about managing temples. One reason for this is that people who study temple management are looking at it from angles, such as tourism, preserving old buildings, religious studies and how organizations work. This means that two people might be doing the research without even knowing it or they might have knowledge that would be helpful to someone else who is studying something similar. Another problem is that most of the research is focused on a few places, like Thailand, India, China and Indonesia. It is observed that people do not know much about the issues that temples face in parts of the world. It is also needed to look at all the research that has been done on temple management to see how it is all connected. This is called mapping and it can help researchers understand how the field of temple management is structured, who is doing the

research and how people are working together. It is observed how new ideas are being developed in this field. Some people have already shown that bibliometric analysis can be a tool for researchers. For example, one study explained how to use analysis to look at trends in what people are publishing, who is working with who and what topics are being studied. Another study used methods to look at the basics of management and organization studies [14]. So this study is going to researchers using these methods to look at all the research that has been done on temple management and see what can be learned from it. The temple management research field is going to be looked at to see what the temple management field is all about. Temple management is a topic and the temple management research field needs to be understood [15].

3. Bibliometric Analysis

3.1 Methodology and Data Collection

A systematic bibliometric examination was made of literature relating to "temple" AND "management," following Donthu et al.'s (2021) and Moral-Muñoz et al.'s instructions (2020). The principal source of data was Scopus, because it comprises all peer-reviewed articles within social sciences, arts/humanities, business management. Literature was searched for "temple" AND "management," (as title, abstract, keyword) and subjected to multiple filters in order to refine citation counts. An original data-base search produced 1428 documents. The first filter eliminated documents outside of the 2010-2025 range = 1125. The second filter limited subject areas to Social Sciences, Arts and Humanities, and Business-Management-Accounting = 552 journals to analyze. The third filter retained only documents published in journals (354). The fourth filter limited language publications to English (307). The fifth filter was based on geography; the 10 highest count countries (Thailand, India, U.S.A., China, Indonesia, U.K., Nepal, Canada, Australia, and Malaysia) produced 228 bibliometric data points from Scopus for this analysis. All bibliometric data exported from Scopus as CSV and analyzed within VOSviewer (1.6.20).

A focused search strategy limited to only two keywords (temple AND management) provided a more focused and reproducible scope for the management of temples bibliometric study overall and allowed for a smaller amount of literature to be included in the analysis; however due to a small amount of literature available that could be considered related to management of temples in the traditional sense, a larger number of keywords (shrine, sacred site, religious tourism, heritage conservation, pilgrimage governance) could have also produced a much larger number of results that could have been analysed but potentially not been as much related to temples in terms of being used for their management, therefore providing an increased amount of noise from non-related studies included with the other literature taken into account. The use of a precise number of keywords that have specific meanings allows for a more reliable and consistent dataset using general bibliometric methodologies rather than using a larger number of keywords all with various and different meanings, so by limiting to a small number of precise keywords, the amount of noise from studies that may not be considered related would be significantly reduced. Using only a limited number of keyword terms should help avoid capturing some literature that may be considered to be related to temples or management of temples but haven't actually been done within a comparable context. Based on these results it is also possible future studies could include the same or similar search terms as listed above but add additional keywords to expand the search string further to provide additional literature related to this topic.

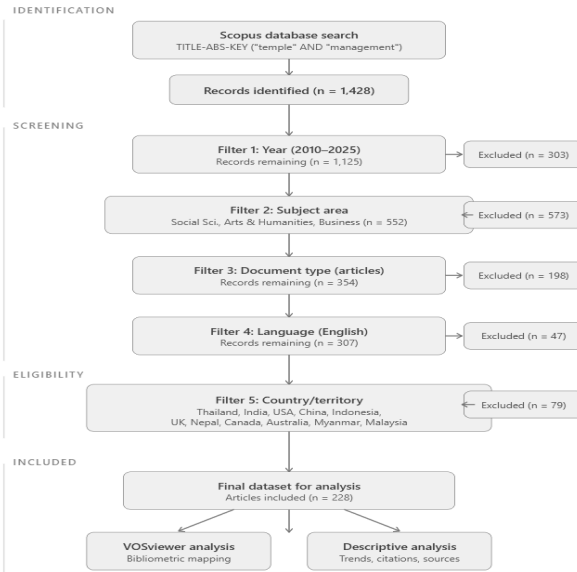


Figure 1. Selection of Articles

3.2 Publication Trends and Growth Patterns

The study of 228 journal articles published on temple management between 2010 and 2025 has demonstrated that the field is on an upward trajectory. During the early period of 2010-2014, output was rather low with an average of approximately 5.2 per year. From 2015-2018, output increased gradually from 4-8 publications per year. However, there was a notable increase in publication output in 2019, with 19 articles published marking the beginning of a period of increased research interest. This period of relatively constant output, averaging 17.5 annually, continued through 2019-2022. In more recent years, there has been a large increase in publication, with a total of 24 articles in 2023, 41 articles in 2024 and 44 articles in 2025. This exponential growth over the past few years indicates that temple management is an emerging area of study that is beginning to receive greater attention in the academy consistent with the larger trends in heritage tourism research and cultural management research.

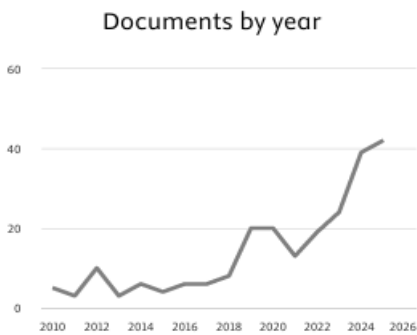


Figure 2. Documents Per Year

3.3 Geographical Distribution of Research

Temple management research across the world is limited to a select number of countries based on geographic analyses. Thailand produces the majority of temple management publications overall, which is reflective of the country's history as a Buddhist nation and the presence of many prominent universities (e.g., Mahasarakham University, Chiang Mai University, and Kasetsart University). India ranks second in terms of published research but primarily on Hindu temples, pilgrimage governance and preservation, and has produced numerous articles related to Hindu temple management through use of several institutions (e.g., Manipal Academy of Higher Education and University of Delhi). The United States and China are third and fourth respectively with limited article production across tourism, heritage, and cultural ecosystem services. Indonesia has produced the fifth most research articles, specifically those related to the Borobudur temple and Indonesian Balinese cultural heritage management. The United Kingdom, Australia, Canada, Malaysia, Nepal, and Myanmar all produce a very limited number of articles relevant to research topic areas.

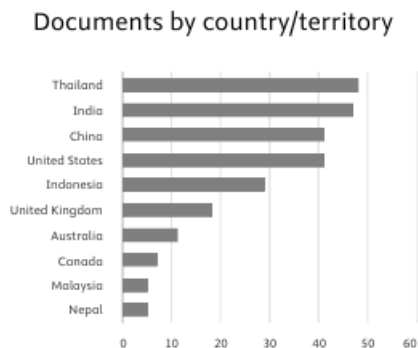


Figure 3. Country wise Documents

3.4 Source Analysis and Influential Journals

The fact that the 228 articles were published in multiple journals indicates the interdisciplinary orientation of temple management research. The most productive journal was the *Journal of Buddhist Anthropology*, which published 9 articles, indicating that the Buddhist component of temple management research is significant. Additionally, the journal *Sustainability* (Switzerland) published 7 articles, suggesting a growing intersection between temple management research and sustainable development. The journal *Religions* published 6 articles, while both the *European Journal of Social Sciences* and the *Journal of Cultural Heritage Management and Sustainable Development* published 5. Additionally, *Tourism Management* is among the highest impact journals in the tourism area, and it published 4 articles that collectively received over 900 citations; two of these articles are the most frequently cited of all in the study; they were by Chen and Phou (2013) and Taecharungroj and Mathayomchan (2019). Other journals of importance included *Geojournal of Tourism and Geosites*, *npj Heritage Science*, *Journal of International Buddhist Studies* and *Kasetsart Journal of Social Sciences*.

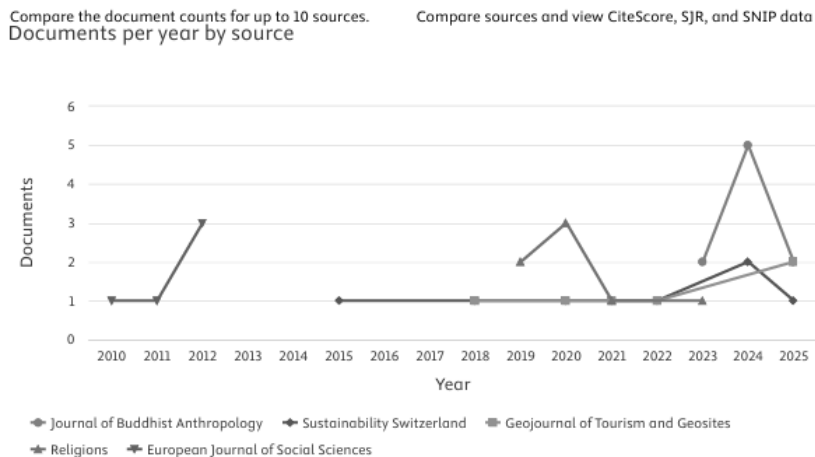


Figure 4. Documents per year by source

3.5 Co-authorship Analysis- Authors

The illustration below (Co-authorship Network) provides an analysis of collaborative papers (VOSviewer) with co-author analysis of authors (VOSviewer) as the unit of analysis. When looking at the settings panel for filtering out documents with more than 25 authors, it is important because this would have had a huge impact on how many authors would be in this visualisation. Therefore, the authors for this project include researchers who publish about temple management and visually represent their co-author relationships with each other. Each individual author is represented on the co-authorship network as a 'node' and connected to another author by an edge (co-authored publications). The closer each author is together, or the thicker (more frequently published), the more collaborative they are together. Additionally, the authors who were involved in temple management published were clustered together in a group. This group consists of a cluster of Thai scholars (i.e., Singchat Worapong, Laopichienpong Nararat, Duangjai Sutee, Ariyaphong Nattakan, Sukgosa Ngamphrom, Panthum Thitipong, Chaiyes Aingorn, Wacharapluesadee Supaporn, Srikulnath Kornson, Muangmai Narongrit, Jangtarwan Kornsuang and Duengkae Prateep) who are most likely associated with their respective universities to produce high levels of collaborative work. Also, the presence of Ahmad Syed Farhan provides little evidence for cross-national collaboration at this time; however, it does suggest the emergence of this type of collaboration is starting to occur. Overall, there is strong evidence of co-authorship throughout the temple management literature, which would indicate that co-authors in this area have high degrees of associated network clustering while maintaining limited connections to authors outside this network.

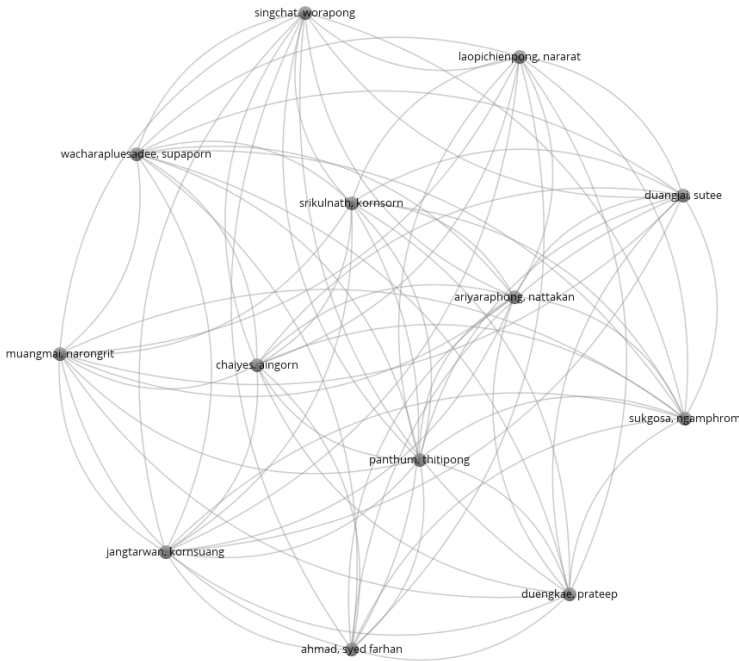


Figure 5. Co-authorship Network-Authors

3.6 Co-authorship Analysis -Countries

The co-authorship network displayed in this figure represents a global analysis of country-level collaborations as seen through the VOSviewer tool. The settings panel indicates that the type of analysis is "Co-authorship," the unit of analysis is "Countries," and the counting method is "Full Counting." Co-authored documents with collaborations involving more than 25 countries were excluded from the analysis. The resulting visualization of the network shows an international collaborative structure of research related to temple management. Each node is a country and the connecting lines represent co-authored works among researchers in those countries. The network indicates that there are four main groupings of countries in this international collaborative work, represented by distinct clusters identified by their respective colours. The red cluster consists of countries such as the United States, United Kingdom, Germany, and Nepal, suggesting that there is a collaborative axis that connects the countries of the West with those of South Asia, particularly based on the framework of heritage conservation/disaster resilience research. The yellow cluster operates around India as a core country, illustrating the strength of India's contribution to temple management relative to the other countries (i.e. the yellow cluster is characterized by India's relatively isolated collaboration). The blue cluster includes countries such as Indonesia and Malaysia, demonstrating a regional collaboration in Southeast Asia between countries working together on heritage management of both Buddhist and Hindu sites. Finally, the green cluster includes China and Taiwan, indicating that they form an East Asian partnership in research focused on cultural ecosystem services and managing heritage sites. The United States has an overall centre of gravity in the network and is directly connected to many of the other countries.

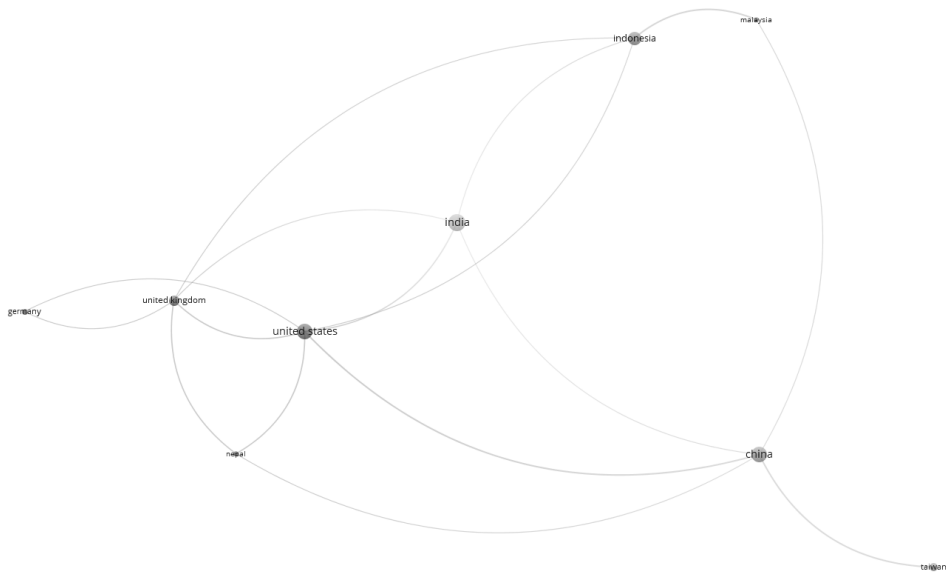


Figure 6. Co-authorship Network - Countries

3.7 Co-occurrence Analysis — All Keywords

This visualisation shows the keyword co-occurrence network, created with VOSViewer using “Co-occurrence” keyword analysis and “All keywords” unit of analysis, “Full counting” methods. The keywords that frequently occur together in published articles are identified as the key components of the thematic landscape of Temple Management research. Each keyword in the figure represents a node; the size of the node indicates the frequency with which that keyword has occurred in the literature. The connecting lines between the nodes represent how frequently two keywords have co-occurred in the same article. The red cluster is themed on tourism-related topics such as ‘religious tourism,’ ‘tourism management,’ ‘tourist destination,’ ‘tourist behaviour,’ ‘tourist attraction,’ ‘ecotourism,’ ‘stakeholder,’ and ‘tourism development,’ making up the dominant discourse on tourism management in this area of research. The blue cluster is themed on heritage and conservation, with ‘cultural heritage’ as the largest and most central node, accompanied by ‘conservation,’ ‘heritage management,’ ‘cultural tourism,’ ‘sustainability,’ ‘sustainable development,’ ‘heritage conservation,’ and ‘cultural identity;’ demonstrating that there is considerable research on these topics in the domain of heritage preservation, and sustainability, at temple sites. The yellow cluster is centred on geographical and cultural terms such as ‘Thailand,’ ‘Indonesia,’ ‘Bali,’ ‘temple,’ and ‘cultural identity.’ This cluster indicates that the research on temple heritage in Southeast Asia is regionally focused. The green cluster on the right.

Mathayomchan (2019) (317 citations) represent the most cited articles, and they have significantly influenced the scholarly dialogue regarding destination loyalty and visitor experience analytics, respectively. The co-authoring analysis demonstrates that most of the collaboration in research conducted at this time is due to national co-authorship, with little or no international co-authoring; hence, there is a need for more international co-authorship if we are to further develop the theoretical base of this field of study. Using citations and co-occurrences of keywords the researchers were able to ascertain the major themes within temple management and the gaps in research. The four co-occurring themes (tourism management, cultural heritage preservation, South East Asian Heritage Studies; social sciences research) are organised into four categories and have revealed that cultural heritage and religious tourism are the key foundations for developing research within temple management. Further, the analysis showed that many areas do not have enough research to support them. For instance, current research on the use of emerging technologies (AI, IoT, Virtual Reality) within temples; Current research does not adequately address climate change adaptations for achieving the preservation of temple heritage; research that investigates the impact of gender inclusion and the lack of financial governance models for temples is also lacking. Based on the above findings, it can be concluded that there has been a lot of information published about temple management but there are still many research opportunities available for scholars particularly concerning technological advances; environmental sustainability; and inclusive governance framework.

5. Future Scope of work

There are a number of very significant research gaps that have emerged from the bibliometric analysis of the 228 scholarly articles published regarding the management of temples, indicating a range of opportunities for future research. One of those research gaps is in the area of the integration of emerging technologies. Just one out of 228 articles mentioned the use of AI or machine learning and only two of those articles referenced the use of smart technologies or IoT applications in the management of temples. Future research should investigate how AI-enabled approaches to visitor flows in temples, predictive maintenance of heritage buildings, the use of virtual/augmented reality for visitor experiences and the use of IoT for environmental monitoring will influence the management of temples. Based on the recent emergence of the terms "GIS" and "virtual tour technology" in the literature published in 2024-2025, it appears that a shift is underway, but appropriate comprehensive frameworks have not yet been developed. Another emerging area of research in relation to the management of temple sites is in the area of sustainability/environmental management. The terms "waste management," "temple waste," "ecosystem services," and "sustainability" appeared predominantly in the 2023-2025 literature, indicating that this is an area that is just beginning to receive scholarly attention. Future research can develop frameworks for reducing waste from temples, assessing the carbon footprint associated with pilgrimage and creating circular economy solutions in the temples ecosystem. The last point is that only three articles have mentioned climate change adaptation in the conservation of temple heritage, meaning the subject is greatly underrepresented. Without future research aimed at developing climate-resilient conservation strategies and disaster preparedness frameworks for sacred heritage sites, it will be more challenging to preserve them in an era of rising temperatures, flooding, and extreme weather patterns occurring around the world. Financial management and economic sustainability of temples as institutions are also under-studied; thus far only sixteen articles have addressed funding or revenue in depth. Research on transparent governance models, crowdfunding for conservation, and temple tourism's economic impact would significantly advance this area of scholarship. Women's and genders' perspectives have been largely absent from studies of temple management, with only eight publications referring to

gender and/or women. Future studies should examine women in temple administration, explore gendered experiences of visitors to temples, and advance inclusive governance frameworks for temples. Lastly, co-authorship analysis suggests limited cross-national collaboration, therefore future work should collectively seek to enhance the theoretical and methodological foundations of this rapidly developing field through international and interdisciplinary partnerships.

5.1 Limitations of the Study

There are limitations that should be acknowledged in this research. One limitation is the reliance on the Scopus database for data extraction purposes. Other databases such as the Web of Science (WoS), Google Scholar, and Dimensions were not included in the review, therefore no contributions from these major databases are being examined in this study. The intent for not using these additional databases was because Scopus was selected due to its thorough indexing of scholarly publications in the social sciences, arts and humanities, and business management fields (Peer-Reviewed Literature Database - 8). By excluding these other databases, some relevant resources that may be included in the other databases might not have been accounted for. For instance, the WoS has a unique coverage and citation index with its own distribution throughout the academic world, therefore potentially creating a different bibliometric than that created by using only Scopus. To develop an image of the discipline of temple management research that is as exhaustive and representative as possible, future studies should explore an alternative method of approaching the analysis of relevant sources by utilizing multiple major academic databases.

6. Conclusion

The current study presents a bibliometric analysis of 228 articles published from 2010 to 2025, which is the first comprehensive mapping of temple management research. The results show that temple management is an interdisciplinary area of rapid growth, as evidenced by publication output more than doubling between 2022 and 2025. Thailand and India dominate the contributions, with the most impactful research being published in *Tourism Management* and the *Journal of Heritage Tourism*. The analysis of author collaborations demonstrates that national networks of scholars are concentrated geographically (e.g. Thai scholars have a high concentration of authors), while there is a low level of international cooperation and collaboration on temple management research, indicating a need to further develop collaborative research partnerships across countries. The analysis of keywords shows four primary thematic clusters of tourism management, cultural heritage conservation, regional heritage studies, and social science research, with "cultural heritage" and "religious tourism" as the intellectual foundation of this research area. However, the bibliometric findings also highlight significant gaps in the literature; very few articles address emerging technologies (e.g., AI, IoT, Virtual Reality), climate change adaptation for temples and the heritage associated with them, and research examining gendered perspectives and financial governance models. Therefore, there is great potential for future research to focus on these under-explored areas while promoting cross-disciplinary and international collaboration to enhance the theoretical and methodological rigor of temple management research. The research findings from this study provide a guide for researchers, scholars and temple managers.

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