

# Eco-friendly Accommodation in Tourism: A Bibliometric Analysis

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## ABSTRACT

This study offers a detailed bibliometric analysis of research on eco-friendly or green accommodation in tourism up to 2022. It examines 459 documents from Scopus and uses performance analysis and VOSviewer for science mapping to examine publication trends, key articles and authors, important journals and countries, co-authorship networks, and thematic structures. The results show a sharp increase in research output from the mid-2010s, peaking around 2020 and 2021. This growth highlights how central green accommodation has become in discussions about sustainable tourism, especially in the post-COVID period. Highly cited works focus on behavioral theories that explain guests' choices of green hotels and their pro-environmental behaviors. They also examine hotel environmental policies, resource efficiency, and waste management. Key journals include *Tourism Management*, *International Journal of Contemporary Hospitality Management*, *Journal of Sustainable Tourism*, *International Journal of Hospitality Management*, and *Journal of Cleaner Production*. This shows strong connections between research in tourism, hospitality, and environmental management. The United States, China, Malaysia, South Korea, the United Kingdom, Australia, and India emerge as major contributors in a dense international collaboration network. Keyword analysis reveals three main clusters: environmental management and policy, green hotel practices and marketing, and tourist behavior and sustainable destination development. Overall, the study outlines the intellectual and social landscape of green accommodation research and points out directions for future work in the tourism sector focused on sustainability after the pandemic.

**Key Words :** Eco-friendly Accommodation, Tourism, Covid-19, Green Accommodation, Bibliometric Analysis

## INTRODUCTION

Tourism is seen as a vital driver of economic growth, job creation, and regional development, particularly in areas throughout Asia and the Pacific (Becken *et al.*, 2021). Before the pandemic, international tourism was essential to foreign-exchange earnings, supported millions of small and medium businesses, and significantly added to global GDP through direct and indirect linkages with transport, accommodation, food services, and recreation. At the same time, the rapid growth of tourism has raised concerns about its environmental impact, particularly in areas that consume substantial energy and resources, such as hotels and other commercial accommodations (Londoño and Hernandez-Maskivker, 2016). The outbreak of coronavirus disease (COVID-19) in early 2020 led to

a major crisis for global tourism as Governments imposed strict travel restrictions, closed borders, and enforced lockdowns to control the spread of the virus (Jones and Comfort, 2020). According to the World Tourism Organization (UNWTO), international tourist arrivals dropped by about 73% to 74% in 2020 compared to 2019, resulting in around 1 billion fewer arrivals and an estimated loss of roughly USD 1.3 trillion in export revenues from tourism (World Tourism Organization, 2021).

Beyond the immediate economic damage, COVID-19 has changed how tourists behave, how they perceive risk, and their travel preferences in ways that will likely continue (Palacios-Florencio *et al.*, 2021). Emerging evidence shows that travelers are now more cautious, with a particular focus on health and safety, hygiene standards, contactless services, and avoiding crowds

when selecting destinations, transportation, and places to stay (Marques Santos *et al.*, 2020). Studies report an increasing interest in domestic tourism, nature-based and rural destinations, smaller group or independent travel, and trips seen as more sustainable or responsible as visitors want experiences that support their well-being while reducing environmental and social risks (Elkhwesky *et al.*, 2022). This shift in behavior brings challenges and opportunities for tourism businesses. They need to show clear commitments to sustainability in the post-pandemic era.

Accommodation has become an important area for applying sustainability principles in tourism (Kim *et al.*, 2017). Conventional hotels and resorts are notable energy and water consumers and generate significant solid waste and greenhouse gas emissions, prompting criticism of their contribution to climate change and local environmental degradation (Londoño and Hernandez-Maskivker, 2016). In response, the concepts of “green hotels”, “eco-friendly accommodation” and “eco-lodges” have gained prominence, referring to establishments that implement environmental management systems and eco-efficiency measures such as energy and water conservation, waste reduction and recycling, green purchasing, and the use of environmentally preferable materials, often engaging with local communities and ecosystems. Studies indicate that adopting these practices can lower operating costs, boost brand image, and attract environmentally conscious guests, suggesting a link between business performance and environmental responsibility (Kularatne *et al.*, 2019; Nelson *et al.*, 2021; Yu *et al.*, 2021).

The scientific literature on eco-friendly and green accommodation has grown quickly and become more fragmented. It covers topics like environmental management practices, guest perceptions and willingness to pay, certification schemes, performance outcomes, and cooperation among stakeholders in different geographic areas (Elkhwesky *et al.*, 2022; Londoño and Hernandez-Maskivker, 2016; Nelson *et al.*, 2021). In tourism research, bibliometric and science-mapping methods have helped bring together large amounts of scattered work (Hasana *et al.*, 2022). They show trends in publications and citations, identify leading authors, institutions, and countries, and highlight the conceptual, intellectual, and social structures of subfields like ecotourism, tourism education, and revisit intention. The studies show that systematic bibliometric analyses can find research hotspots and gaps, track the development of themes and

methods over time, and direct scholars and practitioners to underexplored but important areas (Singh, 2022a; Okumus *et al.*, 2019).

A focused bibliometric analysis of eco-friendly or green accommodation in tourism, covering the period up to 2022, is timely and necessary. By combining and mapping the current research on green accommodation, this study can explain how studies in this area have changed before and during the COVID-19 crisis. It will identify which conceptual groups and methods are most common and highlight the regions, types of accommodations, and aspects of sustainability that are still not well represented. In the context of recovery plans after the pandemic that call for a green and more resilient restart of tourism, especially in Asia and the Pacific, an evidence-based overview of green accommodation research can help policymakers, destination managers, and accommodation providers connect their investment, certification, and marketing strategies with changing tourist expectations and global sustainability goals. This paper uses bibliometric and science-mapping techniques to review the international literature on eco-friendly accommodation in tourism. It aims to document the scientific trajectory through 2022 and to provide a foundation for promoting greener, more sustainable accommodation practices in the post-COVID era.

## METHODOLOGY

Bibliometric analysis is a commonly applied quantitative method that helps examine the knowledge base and intellectual structure of a particular research domain (Singh *et al.*, 2022b). Its application in tourism research has grown significantly, as it enables scholars to trace the evolution of the field and understand its structure through the analysis of existing literature. Bibliometric methods have been widely used in tourism to track the development of journals, specific topics like ecotourism, and concepts like revisit intention (Hasana *et al.*, 2022). They are helpful for finding important works, intellectual foundations, and new themes. In this study, we use bibliometric techniques to examine research on eco-friendly accommodation. Our goal is to outline its development up to 2022.

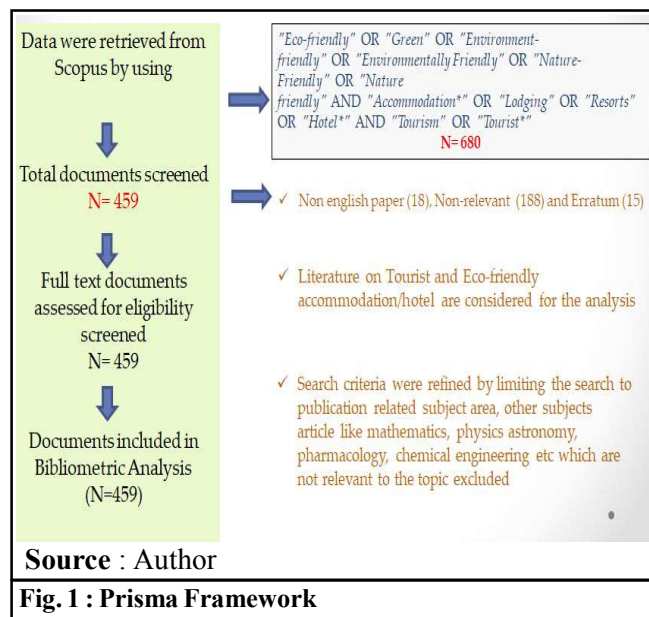
### Data Source

Scopus was selected as the data source due to its wide coverage of tourism, hospitality, environmental management, and multidisciplinary journals. It is also

commonly used in tourism bibliometric studies. Following the method in earlier reviews, the search focused on documents classified as “articles” and “reviews” to ensure the inclusion of peer-reviewed scholarly work. The search was conducted on the Scopus database until 2022. To find publications related to eco-friendly or green accommodation in tourism, a mix of keywords was used in the title, abstract, and author keywords fields. The final Scopus search string was:

*“Eco-friendly” OR “Green” OR “Environment-friendly” OR “Environmentally Friendly” OR “Nature-Friendly” OR “Nature friendly” AND “Accommodation\*” OR “Lodging” OR “Resorts” OR “Hotel\*” AND “Tourism” OR “Tourist\*”*

Fig. 1 summarizes the process of identifying and selecting the documents included in the bibliometric analysis. An initial search in the Scopus database using keywords related to eco-friendly or green accommodation and tourism found 680 records. After screening, we excluded 18 non-English publications, 188 non-relevant records, and 15 erratum items. This left us with 459 documents for detailed assessment. We retained only studies focused on tourists and eco-friendly accommodation or hotels. We refined the search further by limiting the subject area to tourism and hospitality-related fields, excluding unrelated areas like mathematics, physics, astronomy, pharmacology, and chemical engineering. This step-by-step process ensured that the final dataset of 459 Scopus documents accurately represented the scholarly literature on eco-friendly

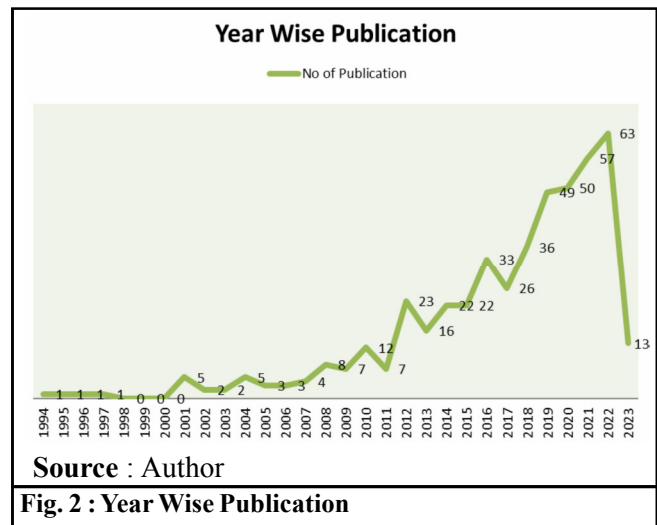


accommodation in tourism.

## FINDINGS AND DISCUSSION

### Year wise publications:

Fig. 2 shows the annual distribution of publications on eco-friendly accommodation in tourism from 1994 to 2022. The trend reveals a very modest output from the mid-1990s to around 2005, with only a few papers published each year. Between 2006 and 2014, there was a gradual increase. Starting in 2015, the field expanded quickly, with the number of publications rising sharply and peaking around 2020-2021, when more than fifty papers were indexed each year. This steady growth suggests that eco-friendly accommodation has become an established and increasingly important research topic in tourism and hospitality. The decline in 2022, with only 13 publications, probably reflects delays in database indexing and the study’s cut-off, rather than a real drop in scholarly interest.



### Most Cited articles and authoritative authors:

The citation analysis reveals a small group of influential articles that have shaped our understanding of eco-friendly and green accommodation in tourism. The most cited paper is by Han, Hsu, and Sheu (2010). It applies the Theory of Planned Behavior to green hotel choice and tests how environmentally friendly activities affect guests’ intentions. With 1,037 citations, this work has become a cornerstone for understanding pro-environmental decision-making in hotels. The second most cited article, by Manaktola and Jauhari (2007), examines consumer attitudes and behavior toward green practices

in the Indian lodging industry. It is often referenced for its early evidence from an emerging economy, having received 607 citations. Another key contribution is Han's (2015) integration of value-belief-norm theory with the Theory of Planned Behavior in a green lodging setting, which has 556 citations. This work enhances the theoretical explanation of travelers' pro-environmental behavior. Along with studies on hotel environmental policies and employees' beliefs (Chou, 2014), green image and word-of-mouth intentions (Wang *et al.*, 2018), and resource use and waste management in Vietnam's hotel industry (Trung and Kumar, 2005), these articles provide the main ideas and evidence for future research on green accommodation.

Among key authors, Han H. stands out as the leading scholar in this field. He is the lead or sole author of two of the three most cited articles. This gives him a central role in green hotel research. Other important contributors include Manaktola K. and Jauhari V. Their joint work on Indian lodging has become a key reference for studies in

developing-country contexts. El Dief M. and Font X. wrote an article on the green marketing behavior of hotel marketing managers. This article is one of the most cited in the *Journal of Sustainable Tourism*. Chou C.-J. has done influential work on how hotels' environmental policies interact with employees' personal environmental beliefs. Mittal S. and Dhar R.L. focused on green transformational leadership and creativity. Miller D., Merrilees B., and Coghlan A. examined pro-environmental behaviors among visitors in sustainable urban tourism. Their research further strengthens these authors' reputation as leading voices in the eco-friendly accommodation literature. Overall, the citation patterns in Table 1 indicate that theoretical models grounded in behavioral theories, along with empirical studies from various geographic regions and stakeholder perspectives, have been most effective in advancing this research area.

### Top Cited Journals

In the Table 2, the productivity and impact indicators

Rank	Authors	Document Title	Document Category	Source	Year	Total Citations
1	Han H.; Hsu L.-T.(J.); Sheu C.	Application of the Theory of Planned Behavior to green hotel choice: Testing the effect of environmental friendly activities	Tourism Management	Research Article	2010	1037
2	Manaktola K.; Jauhari V.	Exploring consumer attitude and behavior towards green practices in the lodging industry in India	International Journal of Contemporary Hospitality Management	Research Article	2007	607
3	Han H.	Travelers' pro-environmental behavior in a green lodging context: Converging value-belief-norm theory and the theory of planned behavior	Tourism Management	Research Article	2015	556
4	Chou C.-J.	Hotels' environmental policies and employee personal environmental beliefs: Interactions and outcomes	Tourism Management	Research Article	2014	216
5	Wang J.; Wang S.; Xue H.; Wang Y.; Li J.	Green image and consumers' word-of-mouth intention in the green hotel industry: The moderating effect of Millennials	Journal of Cleaner Production	Research Article	2018	172
6	El Dief M.; Font X.	The determinants of hotels' marketing managers' green marketing behaviour	Journal of Sustainable Tourism	Research Article	2010	170
7	Mittal S.; Dhar R.L.	Effect of green transformational leadership on green creativity: A study of tourist hotels	Tourism Management	Research Article	2016	168
8	Miller D.; Merrilees B.; Coghlan A.	Sustainable urban tourism: understanding and developing visitor pro-environmental behaviours	Journal of Sustainable Tourism	Research Article	2015	164
9	Berezan O.; Raab C.; Yoo M.; Love C.	Sustainable hotel practices and nationality: The impact on guest satisfaction and guest intention to return	International Journal of Hospitality Management	Research Article	2013	162
10	Trung D.N.; Kumar S.	Resource use and waste management in Vietnam hotel industry	Journal of Cleaner Production	Research Article	2005	158

Source: Author

**Table 2 : Most Cited Journals**

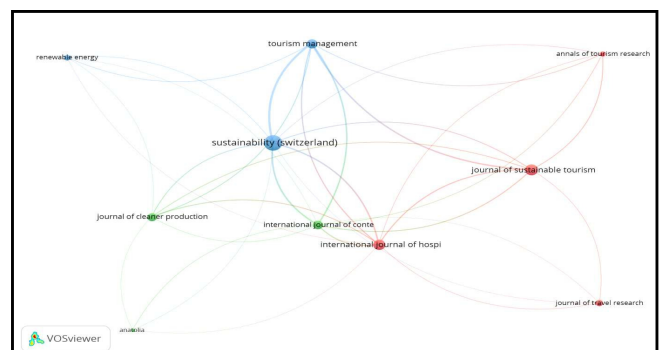
Source	Documents	Citations	Total link strength
Tourism Management	14	2701	88
International Journal of Contemporary Hospitality Management	12	1289	62
Journal of Sustainable Tourism	18	1022	52
Journal of Cleaner Production	11	733	28
International Journal of Hospitality Management	16	648	59
Sustainability (Switzerland)	38	489	84
Renewable Energy	5	359	8
Annals of Tourism Research	4	277	16
Journal of Travel Research	6	208	6
Anatolia	2	172	5

Source: Author

show a focused group of journals that lead discussions on eco-friendly and green accommodation. Tourism Management is the most influential outlet, with 14 documents and 2,701 citations, along with the highest total link strength of 88. This confirms its position as a top venue for theory-driven and empirical work on green hotels and sustainable lodging. Following closely in impact are the International Journal of Contemporary Hospitality Management, which has 12 documents and 1,289 citations, and the Journal of Sustainable Tourism, with 18 documents and 1,022 citations. Both provide specialized platforms that connect hospitality, tourism, and sustainability. Journals focused on environmental issues and operations, such as the Journal of Cleaner Production, with 11 documents and 733 citations, and the International Journal of Hospitality Management, with 16 documents and 648 citations and a link strength of 59, also significantly contribute to the field. This shows that research on green accommodation is not limited to core tourism journals but also covers broader sustainability and management areas. The presence of journals such as Sustainability (Switzerland), Renewable Energy, Annals of Tourism Research, Journal of Travel Research, and Anatolia in the list of top-cited works further highlights the multidisciplinary and international spread of this research area.

The VOSviewer journal co-citation map (Fig. 3) shows how the main sources are connected in the field of green accommodation research. In the network, Sustainability (Switzerland) and Tourism Management stand out as key hubs. They are linked by strong connections to tourism-focused journals like the Journal of Sustainable Tourism, Annals of Tourism Research, Journal of Travel Research, and Anatolia. They are also connected to sustainability journals such as the Journal

of Cleaner Production and Renewable Energy. This setup indicates that research on eco-friendly accommodations often connects tourism and environmental science, drawing on ideas from tourism management and discussions of renewable energy, resource efficiency, and sustainable production. The strong ties between hospitality journals like the International Journal of Contemporary Hospitality Management and the International Journal of Hospitality Management, and sustainability-focused outlets, demonstrate a shared knowledge base that combines operational, behavioral, and environmental viewpoints. Overall, the map shows that research on green accommodation is based in a small group of respected tourism and hospitality journals but is also linked to a broader body of sustainability literature.



Source : Author

**Fig. 3 : Journal Co-Citation Map**

**Top Cited Countries**

From the productivity and citation table, it is clear that research on eco-friendly accommodation is spread out across different regions, but is mainly led by a small group of countries. The United States ranks first in both output and impact, with 52 documents and 2,592 citations,

along with the highest total link strength of 312. This shows not only a large amount of work but also strong integration into the global collaboration network. South Korea, despite producing only 13 documents, has 2,062 citations and a very high link strength of 206. This reflects the significant influence of a few highly cited green hotel studies from this country. The United Kingdom (34 documents, 1,243 citations, link strength 211) and Australia (28 documents, 1,193 citations, link strength 139) also stand out as major contributors.

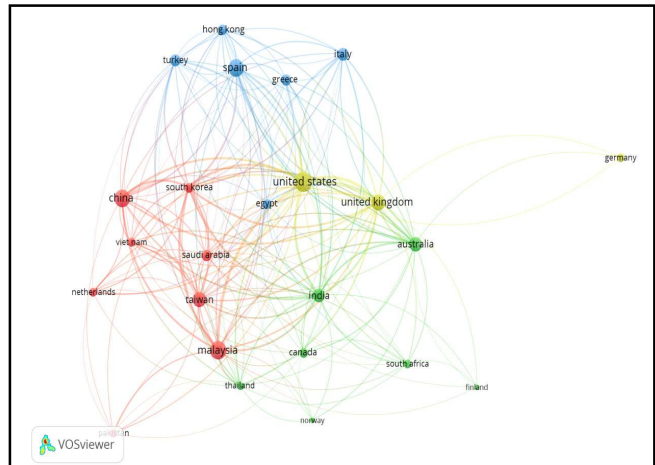
Meanwhile, India (25 documents, 1,172 citations, link strength 191) and China (40 documents, 1,064 citations, link strength 156) demonstrate the growing role of large Asian economies in advancing the green accommodation agenda. Malaysia, Spain, Taiwan, and Saudi Arabia round out the top ten list, each contributing between 16 and 46 documents and gathering 528 to 901 citations. This highlights the growing research interest in both developed and emerging tourism markets (Table 3).

Country	Documents	Citations	Total link strength
United States	52	2592	312
South Korea	13	2062	206
United Kingdom	34	1243	211
Australia	28	1193	139
India	25	1172	191
China	40	1064	156
Malaysia	46	901	198
Spain	39	767	139
Taiwan	32	628	119
Saudi Arabia	16	528	77

Source : Author

The VOSviewer country co-authorship map visually shows how leading countries connect in the international research network on eco-friendly accommodation. The United States and the United Kingdom hold central positions, linking closely with almost all other high-productivity countries. This confirms their role as key hubs for international collaboration. Australia, India, Malaysia, and China create another interconnected group with strong ties and many links to Western partners. This suggests that a lot of the literature comes from North-South and intra-Asian partnerships. European countries like Spain, Italy, Greece, and the Netherlands are closely tied to this core, while Germany seems more on the edge, with fewer collaboration lines. Overall, the network

indicates that research on green accommodation involves a diverse group of countries. It shows that intensive collaboration between North America, Europe, and Asia helps share ideas and methods across different regions (Fig. 4).



Source : Author

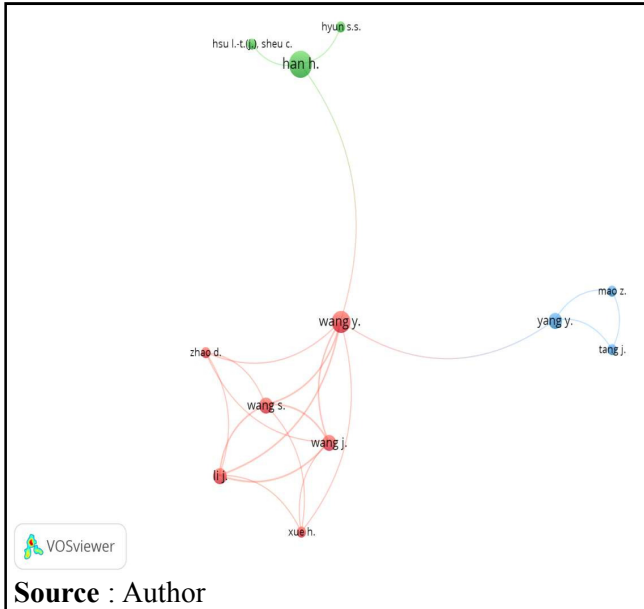
**Fig. 4 : Country Co-authorship Map**

**Co-authorship Analysis of authors**

The co-authorship network of leading authors in green accommodation research shows a small number of closely connected teams centered around a few key figures. Wang Y. holds the most important bridging role, working with Han H., Yang Y., Wang J., Wang S., Zhao D., Li J., and Xue H. This connects several otherwise separate author groups. One dense cluster includes Wang S., Wang J., Wang Y., Li J., Xue H., and Zhao D. Their strong mutual ties suggest ongoing teamwork on related subjects. Another cluster consists of Han H., Hyun S.S., and Hsu L-T. (J.), and Sheu C. They also connect with Wang Y. through joint publications. A third collaborative group features Yang Y., Mao Z., and Tang J. They, too, are linked to the wider network through co-authored papers with Wang Y. Overall, the map shows that co-authorship analysis is a helpful tool for visualizing patterns of scientific collaboration. Authors are shown as nodes and are linked when they co-author one or more papers. This helps identify central collaborators, cohesive research teams, and connect scholars in the field of eco-friendly accommodation (Fig. 5).

**Keyword Co-Occurrence Analysis**

The keyword frequency table reveals that research on eco-friendly accommodation is rooted in a broader



**Fig. 5 : Co-authorship Analysis of Authors**

conversation about sustainability and tourism, rather than being limited to hotel operations. Common terms like “tourism” (93 occurrences; total link strength 249), “hotel industry” (83; 225), and “sustainability” (82; 218) lead the list. They are followed by “sustainable development” (68; 224), “ecotourism” (65; 187), and “hotels” (62; 163). This shows that green accommodation studies are part of larger discussions on sustainable tourism development and nature-based tourism. More specific terms, such as “sustainable tourism,” “environmental management,” and “tourism development,” also appear frequently and have strong link strengths. This highlights the importance of environmental governance and planning at the destination level in this field. Direct mentions of “green hotel” and “green hotels” appear 34 times each, confirming that the green hotel segment is a clearly recognizable, thematically connected subset within the overall literature.

The remaining keywords in the Table 4, such as “environmental protection,” “environmental impact,” “tourist behavior,” “green practices,” “perception,” “green marketing,” “energy efficiency,” “leisure industry,” “hospitality industry,” “Malaysia,” and “China,” reveal the main analytical lenses and geographical focuses of prior studies. Together, they suggest that scholars have examined eco-friendly accommodations from both the supply and demand sides. They have examined environmental management systems, resource efficiency measures, and corporate green strategies, as well as guests’ attitudes, behavioral intentions, and destination

choices. The presence of country names such as Malaysia and China among the most frequent keywords underscores the importance of Asian case studies. The inclusion of “energy efficiency” and “environmental protection” underscores the centrality of climate and resource issues in shaping the research agenda.

**Table 4 : Keyword Co-Occurrence**

Keywords	Occurrences	Total Link Strength
Tourism	93	249
Hotel industry	83	225
Sustainability	82	218
Sustainable development	68	224
Ecotourism	65	187
Hotels	62	163
Sustainable tourism	51	121
Environmental management	40	131
Tourism development	39	123
Tourist destination	35	109
Green hotel	34	58
Green hotels	34	87
Tourism management	31	91
Environmental protection	28	90
Environmental impact	24	86
Hospitality	22	47
Tourist behavior	22	69
Environment	19	58
Green practices	19	41
Perception	19	52
Green marketing	17	30
Leisure industry	17	56
Malaysia	17	30
Article	16	57
China	16	42
Hospitality industry	16	52
Energy efficiency	15	52
Hotel	15	27

Source: Author

The VOSviewer keyword co-occurrence map helps clarify the structure of this field by organizing terms into three color-coded clusters. The first cluster, in red, includes keywords like “China”, “energy efficiency”, “environmental protection”, “environmental management”, “hotels”, “tourism”, and “sustainable development.” It focuses on environmental policy, resource-efficient operations, and the sustainability implications of the hotel and tourism industries, with many Chinese case studies. The second cluster, shown in green, features keywords such as “hotel industry”, “green hotel(s)”, “green practices”, “green marketing”,



assessments into tourism and hotel research. These patterns highlight the interdisciplinary nature of studies on green accommodation and the need for ongoing dialogue across tourism, hospitality, environmental science, and management research.

Country-level analysis shows that research on eco-friendly accommodation is geographically diverse but dominated by a multi-polar group of contributors. The United States leads in both output and citations. It serves as a major hub in the international co-authorship network, often collaborating with the United Kingdom, Australia, and partners in Asia. Asian countries, especially China, Malaysia, South Korea, India, and Taiwan, also play a significant role. This reflects the rapid expansion of hotel capacity and sustainability initiatives in these markets and aligns with other studies highlighting Asia as a key region for green hotel research. European countries like Spain and the Netherlands are well integrated into these collaboration clusters. At the same time, some major tourism destinations remain relatively under-represented. This indicates opportunities for more balanced geographical coverage. Future research could focus on regions in Africa, Latin America, the Middle East, and small-island developing states, where accommodation-related environmental pressures are significant but remain under-researched.

The co-authorship analysis reveals cohesive research teams and a few key authors who connect otherwise separate networks. Wang Y. appears as a central collaborator, linking groups led by Han H. and co-authors, Chinese teams focused on green hotel image, practices, and marketing, and a cluster of authors, such as Yang Y., Mao Z., and Tang J., who work on tourist responses to green initiatives. Han H. is particularly influential, not only as a highly cited author but also as a connection point between consumer behavior models and specific applications in green hotel and cruise contexts. This pattern also appears in other bibliometric mappings. Such collaboration structures are important because they facilitate knowledge exchange across theoretical, methodological, and regional boundaries. However, they also suggest that the field may be vulnerable to depending too heavily on a small number of frameworks and author networks.

The results of the keyword co-occurrence and clustering provide a clear picture of the conceptual framework of green accommodation research. The red cluster, which includes terms like “tourism,” “hotels,”

“China,” “environmental protection,” “energy efficiency,” and “environmental management,” shows a strong emphasis on environmental performance, resource use, and regulatory or policy contexts, often with case studies from Chinese and other Asian hotels. The green cluster, which contains “hotel industry,” “green hotel(s),” “green practices,” “green marketing,” “perception,” “sustainability,” and “Malaysia,” represents a rich area of work on adopting green practices, their marketing and branding, and guests’ perceptions of these initiatives, particularly in emerging Asian markets. The blue cluster, focused on “tourist behavior,” “ecotourism,” “tourist destination,” “tourism development,” and “sustainable tourism,” connects green accommodation with sustainability strategies at the destination level and pro-environmental tourist behavior more broadly. This three-cluster structure aligns with recent bibliometric studies that distinguish between research on willingness to pay for green hotels, the role of green hotels in sustainable tourism, and the broader gap between attitudes and behavior in green consumption.

Overall, these findings suggest that, by 2022, research on eco-friendly accommodation had developed a relatively mature but still growing profile, with clear thematic cores and strong theoretical foundations. However, several gaps and future research opportunities arise. First, many consumer behavior studies rely on the Theory of Planned Behavior and closely related models; more diverse theoretical approaches could be beneficial, integrating frameworks such as value-belief-norm, moral obligation, identity-based theories, or socio-technical transition ideas, which some recent work has begun to explore. Second, while numerous studies show positive links between green practices and guest intentions, satisfaction, or willingness to pay, relatively few rigorously assess long-term financial performance or cost-benefit trade-offs for accommodation providers, especially across different market segments and ownership structures. Third, the literature pays limited attention to the post-COVID context, where heightened health and safety concerns, changes in travel patterns, and increased interest in domestic and nature-based tourism may affect the demand for and perception of “green” accommodation. Future research could investigate how these changes interact with sustainability initiatives, including digitalization, contactless services, and new forms of certification.

From a practical view, this review emphasizes that

green accommodation is now a central element of efforts to make tourism more sustainable. Hotels that adopt credible environmental practices can achieve a dual benefit: improving resource efficiency and environmental performance while enhancing brand image and attracting eco-conscious guests. For policymakers and destination managers, the concentration of research and practice in specific regions and chains suggests where expertise can be utilized and where capacity-building and incentives are needed to spread green practices more widely. For researchers, the mapping establishes a foundation for future studies that target under-researched regions, diversify theoretical frameworks, use longitudinal and comparative designs, and better integrate the social, environmental, and economic aspects of sustainability.

### Conclusion:

In conclusion, this study shows that research on eco-friendly and green accommodation has grown quickly and formed a coherent structure, with well-defined themes, influential journals and authors, and extensive international collaboration. By documenting publication trends, leading contributions, journal and country profiles, collaboration networks, and conceptual structures up to 2022, the review provides a thorough knowledge map that can guide both research and practice in the post-COVID era. As tourism systems evolve to meet environmental challenges and changing tourist preferences, eco-friendly accommodation will remain a vital area for innovation and policy action. Ongoing bibliometric monitoring can help track how this changing research landscape supports the move towards more sustainable and resilient tourism.

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