

GREEN IN HOSPITALITY: A SCOPING REVIEW AND FUTURE RESEARCH AGENDA

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Abstract: Green hospitality refers to the industry's dedication to environmentally sustainable practices that minimize ecological impact, enhance energy efficiency, and encourage sustainable consumption among travelers. It encompasses eco-friendly operations from design to service delivery, with the goal of creating a positive industry impact. This shift is driven by growing environmental awareness and consumer demand for sustainable options, influencing patronage choices and perceived value of accommodations. The move towards sustainable hospitality involves key behaviors and considerations. This study aims to review current knowledge on green hospitality and propose new research directions for future exploration. This study provides a PRISMA based systematic review of green hospitality research, analyzing 48 articles from Scopus and Web of Science. It integrates bibliometric network and density visualization analyses to highlight key knowledge areas, emerging themes, and future research directions. The findings reveal that green hospitality has evolved into a multifaceted research field connecting environmental management, green hotels, sustainability, green brand authenticity, pro-environmental consumption, sustainable tourism, artificial intelligence, biodiversity conservation, energy transition, and decarbonization. The most prominent focus is on green hospitality, sustainability, green hotels, and consumer behavior, indicating that current studies primarily explore green practices, customer intentions, green purchasing, trust, loyalty, and authentic sustainability communication. Overall, the research shows a shift from isolated environmental actions to integrated, technology-driven, destination-focused sustainability systems within the hospitality and tourism industry. These insights support future theoretical development, managerial strategies, and policy planning for sustainability.

Keyword: green hospitality, green practices, PRISMA Methodology, scoping review

Introduction

Green hospitality has evolved from a mainly operational focus to a comprehensive sustainability framework that links environmental management, customer experience, employee behavior, destination attractiveness, and technological innovation. Early research regarded green hospitality as a response to excessive energy use, environmental harm, and the necessity for responsible tourism development (Thryambakam, 2014). More recent studies have expanded the concept to include green hotels and restaurants, eco-friendly buildings, sustainable luxury resorts, innovation in eco-processes, green certifications, regenerative design, and service informatics capabilities (Bouchon et al., 2025; Harazneh et al., 2026; Makprasert, 2022; Quratulain et al., 2026). This broader scope is significant because hotels and food-service providers operate at the intersection of resource-heavy service delivery and experience-based consumption, making it essential to embed sustainability both in back-of-house operations and in guest-facing value propositions.

The empirical studies indicate that green hospitality is not only an environmental agenda but also a market and organisational strategy. Green building and green management practices are associated in the dataset with customer attraction and business profitability, suggesting that environmental investments can support competitive advantage when guests recognise credible green value (Nigli & Gopi, 2025). Similarly, work on sustainable luxury hospitality argues that sustainability and luxury

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are not opposing concepts when resorts innovate around environmental management, social responsibility, and consumer preference (Bouchon et al., 2025). Research on hotel strategies in Albania and sustainable hospitality practices in North Pakistan also positions green measures as part of business adaptation to stakeholder pressure, destination sustainability, and local development needs (Gashi et al., 2025; Qasim et al., 2024).

Another key aspect of the literature is its focus on behavior. Numerous studies explore why guests plan to visit, buy, revisit, book, or engage with green hospitality brands. Theoretical frameworks include the Theory of Planned Behavior, Value Belief Norm theory, signalling theory, stakeholder theory, diffusion of innovation, and emerging hospitality-specific theories such as the green purchase behavior and repeat purchase behavior theories (Fang & Zaman, 2025; Han, 2020; Hasan, 2023; Li et al., 2026; Luong & Nguyen, 2025b; Sharma et al., 2024). These perspectives indicate that green hospitality consumption is influenced by environmental concern, perceived knowledge, green trust, social influence, personal norms, perceived value, emotional attachment, and past behavior. Thus, the literature views consumers not merely as passive recipients of sustainable practices but as active evaluators of authenticity, value, and credibility.

At the same time green hospitality cannot be limited to consumer demand. Employee capabilities, green human resource management, shared vision, autonomy, leadership support, and organisational learning are repeatedly recognized as mechanisms through which sustainability becomes embedded in-service delivery (Ansong et al., 2024; Arasli et al., 2020; Cabral & Chiappetta Jabbour, 2020; Kim et al., 2025). Recent work extends this organisational view by examining artificial intelligence, generative artificial intelligence, Industry 5.0, and AI-human collaboration as potential enablers of green creativity, operational resilience, environmental-economic synergies, and employee happiness (Acharya & Mahapatra, 2025; Chi & Vu, 2026; Harazneh et al., 2026; Robina-Ramírez et al., 2026). The field is therefore moving toward a socio-technical understanding in which sustainability depends on both human commitment and technology-supported capabilities.

Despite the increasing attention, there is a lack of bibliometric studies focused on green hospitality, especially systematic reviews using keyword co-occurrence analysis. Therefore, this paper aims to review the existing body of literature related to Green Hospitality.

Accordingly, this conceptual paper outlines the following research objectives:

1. To systematically review the existing literature related to “Green Hospitality”.
2. To explore future research opportunities related to “Green Hospitality”.

Review of Literature

Conceptual development of green hospitality

Literature suggests that green hospitality has evolved through at least three connected stages. The first stage emphasized environmental protection, energy conservation, and responsible tourism, motivated by concerns that tourism growth could lead to pollution, resource depletion, and ecological pressure (Thryambakam, 2014). The second stage expanded its focus to include green hotels, restaurants, and

sustainable hospitality products, with researchers examining guest motivations and purchasing behaviors based on established behavioral theories (Han, 2020; Han et al., 2020; Patwary et al., 2020). The latest, third phase, perceives green hospitality as a strategic, organizational, and technological capability, involving green intellectual capital, AI-driven service informatics, eco-innovations supported by leadership, and sustainable business results (Harazneh et al., 2026; Qoyyimah et al., 2025; Quratulain et al., 2026; Seow et al., 2025).

Consumer-oriented studies represent the most prominent theme within the scope. In Malaysia, Muniandy et al. (2019) and Patwary et al. (2020) investigated factors influencing the intention to visit green hotels, such as environmental knowledge, sense of responsibility, accessibility of green options, and behavioral attitudes. Han (2020) contributed to this area by proposing the theory of green purchase behavior, where personal norms are triggered by awareness of consequences, brand image, environmental values, social norms, and perceived responsibility. Similarly, Han et al. (2020) explored pro-environmental consumption in the context of green hotels and restaurants, emphasizing that sustainable hospitality practices are shaped by both rational assessments and normative motivations.

A key issue in green hospitality is the its impact on the environment. Since sustainability messages can sometimes be seen as symbolic or opportunistic, many studies highlight the importance of authenticity, trust, and certification. Gupta et al. (2019) emphasized that concerns about greenwashing make consumer trust vital for building relationships with hotel guests. Yu et al. (2024) demonstrated that authentic green branding can influence well-being, customer engagement, and positive behaviors toward eco-friendly hotels. Chua et al. (2024) added that authenticity and stereotypes shape how customers relate to green brands, suggesting that consumers evaluate green brands based on genuine commitment and pre-existing beliefs about environmentally responsible companies.

Operational studies in the corpus emphasize that practical infrastructure is supporting green hospitality. Nigli and Gopi (2025) found that green building practices such as solar energy, water conservation, and waste recycling can attract customers and enhance hotel performance. Štimac et al. (2023) studied hotel gas consumption and the feasibility of fuel switching in a Croatian coastal context, highlighting how energy-system decisions impact decarbonisation efforts in hospitality. Meanwhile, Makprasert (2022) took a broader operational view, including regenerative landscape design in Northern Thailand, and presented green hotel landscapes as integral to resilience, cultural identity, and circular local economies.

The human involvement in green hospitality is a vital aspect of the field. Cabral and Chiappetta Jabbour (2020) emphasized that green training boosts environmental performance by helping employees incorporate sustainability strategies into their everyday service routines. Similarly, Arasli et al. (2020) investigated green hotel service providers and discovered that human resource practices such as training, empowerment, and rewards enhance environmental dedication through resilience and work engagement. These findings suggest that sustainability in hospitality must go beyond technology or infrastructure alone; but it also depends on employee understanding, emotional investment, and perceived support from the organization.

Another growing and emerging theme in the dataset is the connection between technology and sustainable hospitality practices. Chi and Vu (2026) explored how AI adoption affects employee-driven green innovation, finding that AI can boost green creativity both directly and through proactive learning and concerns about job replacement. Robina-Ramírez et al. (2026) studied generative AI in

Spanish eco-hotels, linking technology use to increased awareness of sustainability metrics, environmental performance, process management, sustainability goals, and employee well-being. Harazneh et al. (2026) described AI-enabled green hospitality as a service-informatics capability that can generate environmental and economic benefits while raising questions about authenticity.

Methodology

The Systematic Literature Review (SLR) was conducted using the PRISMA framework, as referenced in Dogra and Priyashantha (2023). Using the keyword "Green Hospitality," a total of 48 papers were selected from the Scopus and Web of Science databases. The review methodology has been established in accordance with the PRISMA criteria. An analysis of keyword co-occurrence has been conducted using VOSviewer software (Version 1.6.20).

This investigation employed the PRISMA method and framework, as outlined by Dogra and Priyashantha (2023), to review and choose relevant publications. The aim was to examine existing literature on green hospitality and suggest future research directions. Early in the study, the PRISMA process was used to systematically organize the review, covering search terms, inclusion criteria, analysis tools, and reporting structure. Adopting the PRISMA guidelines is highly recommended for systematic reviews because it helps reduce bias during article selection, data analysis, and publication. The PRISMA flow diagram includes three key stages: "identification, screening, and inclusion." During the identification phase, selecting appropriate search terms, criteria, and databases is essential (Priyashantha et al., 2023a, Rajapaksha et al., 2025).

The PRISMA flow diagram for article selection comprises four distinct phases: identification, screening, eligibility, and inclusion. These stages guided the process of selecting relevant studies (Priyashantha et al., 2023b). The search was conducted using the term "Green Hospitality," and eligible articles were retrieved from the Web of Science and Scopus databases. A combination of automated and manual screening methods was employed to exclude irrelevant articles. This study focused exclusively on peer-reviewed journal articles published in English. Systematic reviews were particularly emphasized due to their recognized reliability and credibility in academic research (Priyashantha et al., 2023).

Article selection methodology and protocol

Table 1. Inclusion and exclusion criteria for Green Hospitality

Article selection method	PRISMA guidelines
Search strings	Green Hospitality
Inclusion criteria	1. Year range: 2014 - 2026 Search Date: 11-06-2026 2. Subject area: All 3. Language of article: English 4. Keywords: Author Keywrods

	5. Source type: Academic Journals
	6. Type of Study: Quantitative
	7. Methodological quality: Qualitative and Quantitative
Databases	Scopus and Web of Science
Analysis Method	Keyword co-occurrence analysis
Reporting structure	PRISMA guidelines
search criteria	“Green Hospitality”
Whom do the screening and eligibility checking?	Authors independently/ independent reviewers

Source: Authors Developed (2025)

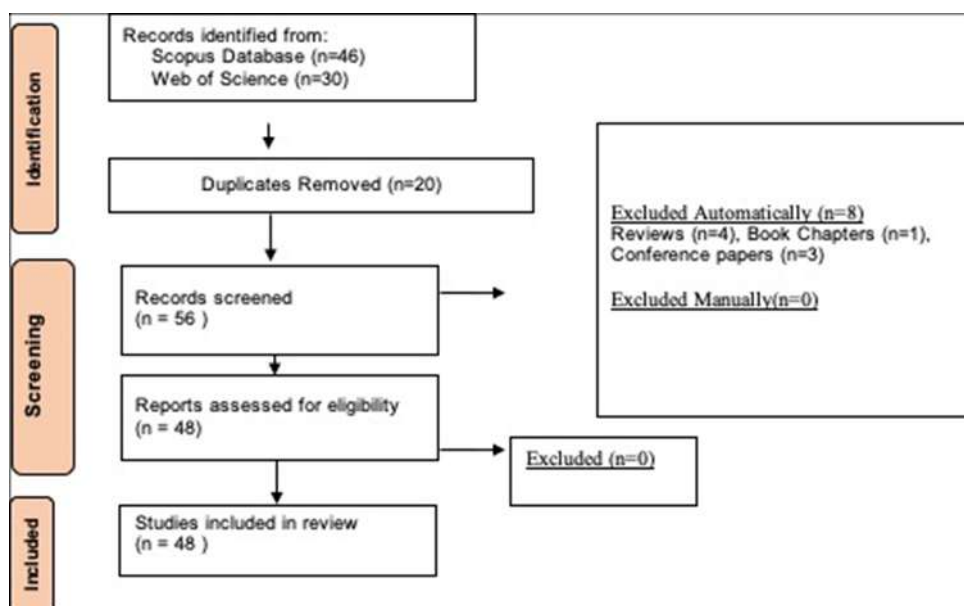


Figure 1. PRISMA Article Selection Flow Diagram

Source: Authors Developed (2025)

Data Analysis and Findings

VOSviewer software (version 1.6.20) was used with Keyword co-occurrence analysis to examine data from the Scopus data base. VOSviewer grouped keywords into 6 clusters based on their relationships. These clusters are visually marked by different colors, showing the connections between keywords within each cluster. The investigation used a bibliometric approach, employing VOSviewer software

(Version 1.6.20) to perform keyword co-occurrence analysis. The study also examined the relationships between phrases and visually display them using a method known as "keyword co-occurrence network visualization." Establishing a connection between phrases in this visualization could provide valuable insights into the text. VOSviewer software uses association strength normalization as its default setting and generates a network in two-dimensional space. In this space, nodes representing terms with strong connections are placed close to each other, while those with weaker connections are positioned farther apart. The software categorizes nodes into clusters within the network, grouping nodes that show significant correlation. VOSviewer uses colors to distinguish clusters, with each color representing a different group. Therefore, a cluster can serve as an indicator of a common theme (Dogra & Priyashantha, 2023).

To identify underexplored areas, VOSviewer software was used to create a density visualization map. The VOSviewer user manual states that the keyword density map has a preset color scheme ranging from blue to green to red. The intensity of the colors correlates with the number of keywords in the area. Blue indicates a lower frequency of keywords, while green indicates a moderate frequency. Therefore, sentences in blue and green areas were considered to be less common locations. Co-occurrence density visualization helps identify areas that need more research (Dogra & Priyashantha, 2023).

Discussion

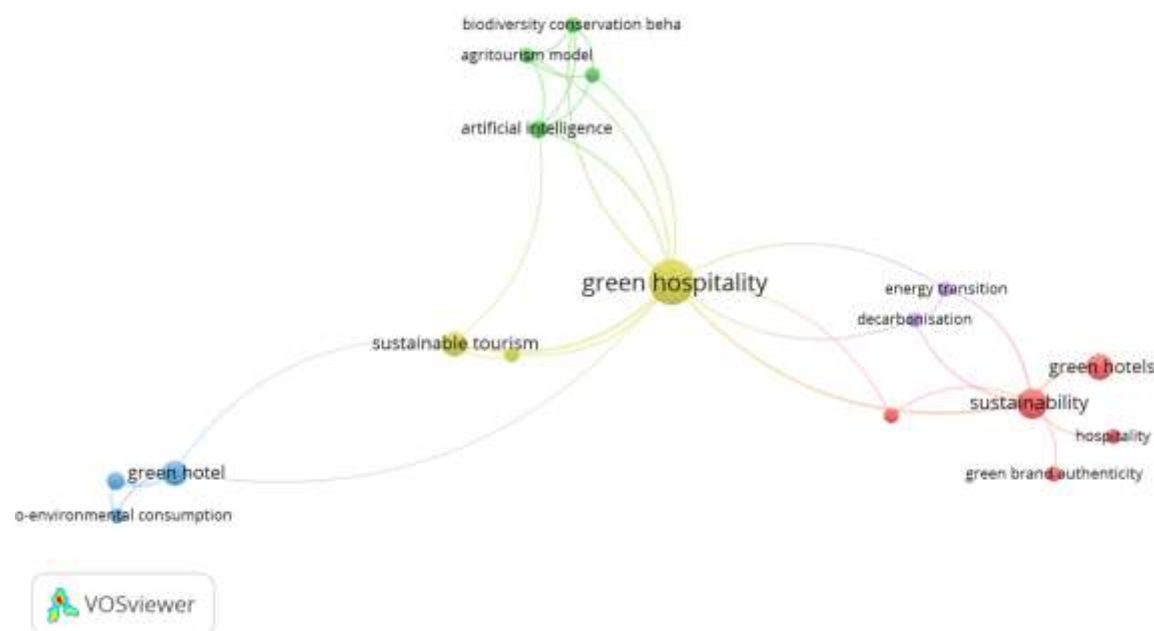


Figure 3. Keyword co-occurrence network visualization map

Source: VOSviewer output

The network visualization map (Figure 03) indicates the relationship between 6 clusters of keywords as indicated in the table 03. A cluster indicates a common theme.

Table 03: Clusters and Corresponding Keywords

Cluster	Keyword classification	Emerging theme
Cluster 1	Environmental management; green brand authenticity; green hotels; hospitality; sustainability	Sustainability management, authenticity, trust, and organisational green capability
Cluster 2	Agritourism model; artificial intelligence; biodiversity conservation; innovation	AI-enabled green innovation and biodiversity-oriented hospitality
Cluster 3	Green hotel; green restaurant; pro-environmental consumption	Consumer intention, green purchase behaviour, and loyalty
Cluster 4	Green hospitality; nature based tourism; sustainable tourism	Green hospitality as a pathway for sustainable tourism development
Cluster 5	Decarbonisation; energy transition	Energy efficiency, fuel switching, and low-carbon hotel operations

Source: Authors Compilation

Cluster 1: Environmental Management, Green Brand Authenticity, Green Hotels, Hospitality, and Sustainability

This cluster encompasses the broadest aspect of sustainability management within the network. The articles indicate that green hospitality is increasingly viewed as a strategic approach that combines environmental management, creating customer value, involving employees, green branding, and enhancing long-term business success. Sustainable building practices and initiatives are presented not only as environmental duties but also as tools to attract customers and boost hotel competitiveness (Nigli & Gopi, 2025). Similarly, research on sustainable luxury hospitality suggests that sustainability is no longer seen as incompatible with luxury; instead, it now acts as a driver of innovation, differentiation, and value generation in resort markets (Bouchon et al., 2025).

A key subtheme in this group is green brand authenticity. Customers increasingly scrutinize whether green claims are credible, consistent, and truly integrated into hospitality operations. Chua et al. (2024) reveal that functional quality and stakeholder involvement enhance perceived green brand authenticity, thereby strengthening customer-brand relationships. Additionally, Yu et al. (2024) show that green authenticity affects customer well-being, engagement, and approach behavior toward green hospitality brands. This suggests that sustainability communication should be backed by visible, trustworthy practices rather than superficial or symbolic environmental claims.

Overall, Cluster 1 suggests that green hospitality has moved beyond isolated environmental actions toward a more integrated model of sustainability management, where authenticity, employee capability, customer trust, certification, and competitive advantage interact to shape sustainable hotel performance (Chua et al., 2024; Seow et al., 2025; Sojib et al., 2026; Yu et al., 2024).

Cluster 2: Agritourism Model, Artificial Intelligence, Biodiversity Conservation, and Innovation

This cluster highlights an emerging technology-driven trend in green hospitality research. The most prominent keywords are artificial intelligence, green innovation, and biodiversity conservation. Chi and Vu (2026) demonstrate that AI adoption can enhance hospitality employees' green creativity and innovation, with pathways connected to biodiversity conservation behaviors. The mention of the

agritourism model indicates that AI-enabled green hospitality is linked with larger ecological and rural tourism systems, where innovation benefits both hospitality performance and environmental preservation.

AI is increasingly being examined as a capability that can enhance environmental and economic synergies. Harazneh et al. (2026) describe AI-enabled green hospitality as a service-informatics capability that can boost both environmental and economic results in tourism. Robina-Ramírez et al. (2026) add to this by demonstrating that generative AI can affect employee well-being, awareness of sustainability metrics, environmental performance, and sustainable hotel management. These findings indicate that AI serves not only as an operational tool but also as a means to reinforce sustainability-focused decision making.

Cluster 3: Green Hotel, Green Restaurant, and Pro-Environmental Consumption

Cluster 3 underpins the core consumer behavior in green hospitality research. It explores why consumers opt for green hotels and restaurants, how their green purchase intentions develop, and which factors promote repeat visits. Han (2020) introduces the Theory of Green Purchase Behavior to explain sustainable consumption patterns related to green hotel and restaurant products. Additionally, Han et al. (2020) demonstrate that pro-environmental consumption in these settings is influenced by cognitive, emotional, moral, and behavioral factors.

This cluster's green hotel literature often applies behavioral theories like the Theory of Planned Behaviour. Muniandy et al. (2019) investigate Malaysian customers' intentions to visit green hotels, while Patwary et al. (2020) develop a conceptual model identifying factors affecting consumer decisions to stay at green hotels. Luong and Nguyen (2025a) find that environmental concern, perceived green knowledge, green trust, and green motivation all impact the intention to visit green hotels. These results indicate that green consumption is influenced not only by environmental awareness but also by factors such as trust, motivation, perceived knowledge, and attitudes toward green hospitality services.

Overall, Cluster 3 shows that green hospitality consumption research is becoming more sophisticated. It has moved from basic intention models toward multidimensional explanations involving trust, perceived value, emotional attachment, green self-identity, generational differences, eco-innovation adoption, and customer loyalty (Han, 2020; Li et al., 2026; Sharma et al., 2024).

Cluster 4: Green Hospitality, Nature-Based Tourism, and Sustainable Tourism

Cluster 4 places green hospitality within the larger sustainable tourism framework. It demonstrates that green hospitality extends beyond just hotels to include destination sustainability, nature-based tourism, eco-tourism, and local development. Luong and Nguyen (2025b) note that green hospitality, nature-based tourism, and sustainable tourism are interconnected themes in Vietnam's eco-tourism research. Similarly, An et al. (2025) highlight that green consumer behavioral intentions are part of the broader sustainable hospitality and tourism industry.

This group also covers regional and destination-specific implementations of green hospitality. Qasim et al. (2024) explore sustainable tourism and green hospitality initiatives in Gilgit Baltistan, emphasizing that green management in hospitality establishments is crucial for sustainable tourism growth. Gashi et al. (2025) analyze ecological hotel practices in Albania and highlight environmental

responsibility and sustainability as key strategic priorities in the hotel sector. Thryambakam (2014) similarly discusses Indian tourism and hospitality's shift toward green tourism, eco-tourism, and environmental sustainability.

Cluster 5: Decarbonisation and Energy Transition

Cluster 5 is the most focused and technically oriented in the network, closely linked to energy transition, decarbonisation, fuel switching, gas use, and low-carbon hotel practices. Štimac et al. (2023) offer direct evidence through their analysis of hotel gas consumption along the Croatian Adriatic coast, exploring the potential to switch from LPG to natural gas. Their findings indicate that fuel switching can cut emissions and generate economic gains, demonstrating that energy transition is a viable approach to decarbonising hospitality operations.

Although only a few articles within the 48-article dataset directly mention decarbonisation and energy transition, many studies support this cluster indirectly by focusing on environmental management, green building practices, green certification, and operational sustainability. Nigli and Gopi (2025) highlight that green building practices are important for attracting customers and developing businesses, while Sojib et al. (2026) analyze hotel operators' awareness and adoption of green certification. These findings indicate that decarbonisation in the hospitality sector involves not just technical solutions but also managerial and institutional aspects.

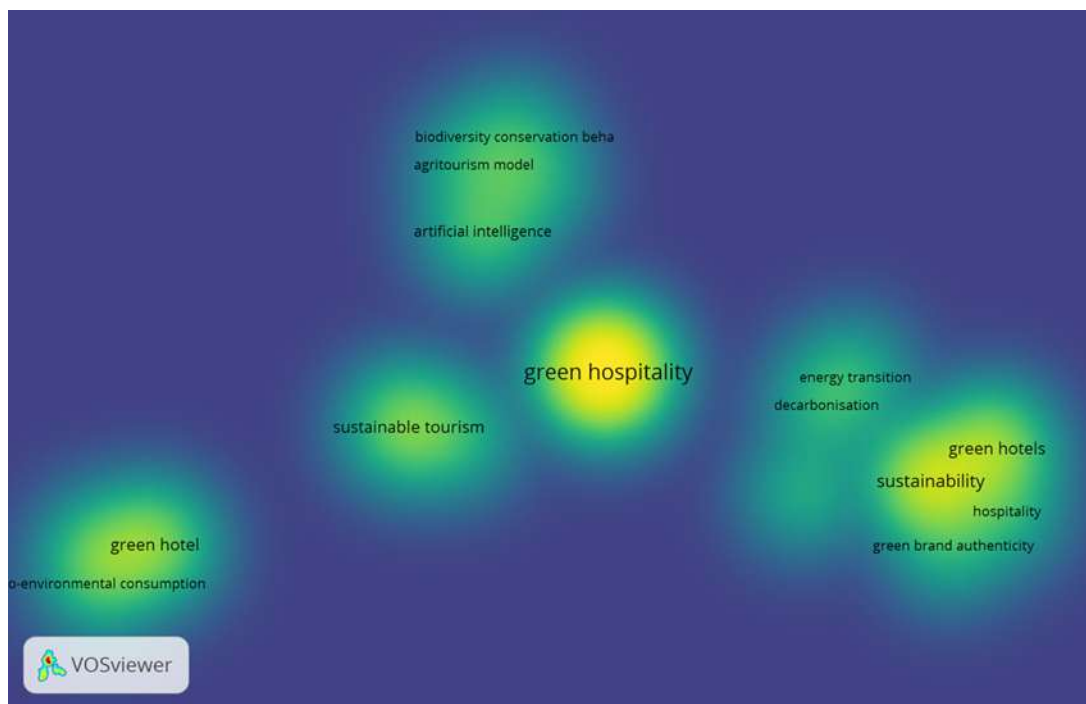


Figure 04 Density Visualisation Map of Keywords

Source: VOSviewer output

Density visualization analysis: Green hospitality

The density visualization indicates that “green hospitality” is the dominant intellectual hotspot in the map. Its bright yellow colour and central position suggest that it is the most frequently occurring and most strongly connected concept in the reviewed dataset. Around this central theme, the map shows several medium density and low density knowledge areas, including sustainability and green hotels,

green hotel/green restaurant consumption, sustainable tourism, AI and biodiversity conservation, and energy transition/decarbonisation.

Key insights from the density map

1. Green hospitality is the central integrating concept

The most prominent area centers on green hospitality, indicating that this term serves as the key concept linking various research directions. Within the 48-article dataset, green hospitality is characterized as a comprehensive sustainability-focused approach encompassing environmental management, green hotels, customer behavior, employee engagement, innovation, sustainable tourism, and low-carbon practices (Kim et al., 2025; Nigli & Gopi, 2025; Qoyyimah et al., 2025). This suggests that green hospitality has developed from a narrow operational concept into a broader research field that connects consumer behaviour, organisational sustainability, digital innovation, and destination-level tourism development.

2. Sustainability and green hotels form a strong secondary hotspot

The right side of the density map highlights a strong focus on sustainability, green hotels, hospitality, and authentic green branding. This suggests that a significant area of research centers on how hotels adopt sustainability measures and communicate them credibly to guests. Green brand authenticity is particularly crucial as customers increasingly doubt whether green claims are sincere or merely symbolic (Chua et al., 2024; Yu et al., 2024). This area also links with green certification, green building practices, sustainable business performance, and green human resource management, suggesting that sustainability in hotels requires both operational practices and credible brand positioning (Cabral & Chiappetta Jabbour, 2020; Seow et al., 2025; Sojib et al., 2026).

3. Green hotel and pro-environmental consumption represent a mature consumer-behaviour stream

The left side of the map highlights a dense concentration around the green hotel and pro-environmental consumption topics. This indicates that consumer behavior continues to be a core focus in green hospitality research. The dataset includes studies on green hotel visit intentions, green purchasing behavior, revisit intentions, loyalty, green trust, environmental concern, and customer motivation (Han, 2020; Han et al., 2020; Luong & Nguyen, 2025; Muniandy et al., 2019). However, this hotspot appears relatively separate from the decarbonisation and AI areas. This implies that much of the consumer-behaviour literature still focuses on intentions, perceptions, and attitudes, rather than directly linking consumer choices with measurable environmental outcomes.

4. Sustainable tourism is moderately connected but not yet the dominant hotspot

The term sustainable tourism appears as a medium-density area connected to green hospitality. This shows that the literature recognises green hospitality as part of the wider sustainable tourism system, especially in eco-tourism, nature-based tourism, and destination sustainability contexts (Luong & Nguyen, 2025; Qasim et al., 2024; Thryambakam, 2014). The moderate density suggests that this theme is important but still developing. Studies on regenerative hotel landscapes, ecological hotels, and sustainable luxury resorts show that green hospitality can support local development, cultural

landscapes, ecological protection, and destination resilience (Bouchon et al., 2025; Gashi et al., 2025; Makprasert, 2022).

Future research opportunities

Future research should go beyond just measuring intent to visit green hotels and explore whether customer actions truly lower environmental impacts. For instance, studies could link booking patterns, revisit intentions, and customer loyalty with hotel-specific indicators like energy consumption, water use, food waste, and carbon emissions. This approach would better clarify the connection between environmentally friendly behaviors and concrete sustainability outcomes (Han, 2020; Han et al., 2020; Sharma et al., 2024).

The map shows that green brand authenticity is becoming important, but future studies should investigate how customers identify authentic sustainability claims and how they respond to greenwashing. This is especially relevant for Generation Z, luxury hotels, and certified green hotels, where customers may expect stronger evidence of sustainability performance (Chua et al., 2024; Deshani et al., 2025; Jain et al., 2025; Vázquez et al., 2025).

The AI-related field remains in development, and future research should explore how AI can aid energy management, biodiversity monitoring, waste reduction, personalized green guest experiences, and employee green innovation. Additional empirical studies are required to determine whether AI-enabled green hospitality enhances both environmental and economic outcomes (Acharya & Mahapatra, 2025; Chi & Vu, 2026; Harazneh et al., 2026; Robina-Ramírez et al., 2026).

The presence of biodiversity conservation and agritourism suggests a promising future direction. Future research could explore how hotels, eco-lodges, agritourism operators, and nature-based destinations contribute to biodiversity conservation. This would expand green hospitality beyond hotel efficiency and connect it with ecosystem protection, local agriculture, regenerative tourism, and community-based sustainability (Chi & Vu, 2026; Luong & Nguyen, 2025; Makprasert, 2022).

Decarbonisation emerges as a low profile yet strategically vital theme. Future research should explore areas such as renewable energy adoption, fuel switching, smart energy systems, carbon accounting, green building retrofits, and life-cycle assessment specifically in hotels. This focus would advance green hospitality research from broad sustainability assertions to concrete low-carbon transformation metrics (Nigli & Gopi, 2025; Štimac et al., 2023).

Several articles show that employees are central to implementing green hospitality practices. Future research should examine how green training, green shared vision, green knowledge sharing, rewards, autonomy, and employee engagement influence sustainability outcomes. This is important because operational sustainability often depends on employees' daily decisions and behaviours (Ansong et al., 2024; Cabral & Chiappetta Jabbour, 2020; Kim et al., 2025; Nimri et al., 2026).

Limitations of the Study

This study has a few limitations. Firstly, it only considers 48 articles from Scopus and Web of Science, potentially excluding relevant studies from other sources like Google Scholar, ScienceDirect, Emerald, ProQuest, or regional journals. Secondly, the analysis relies on keywords, titles, and

abstracts in the chosen records, so some key themes might not have been prominently visible in the network if different terminology was used by authors.

Third, while bibliometric maps illustrate connections among keywords, they do not fully account for the quality, depth, or methodological rigor of individual articles. As a result, the density and network visualizations should be viewed as signs of thematic concentration rather than precise indicators of research significance. Fourth, emerging topics like artificial intelligence, biodiversity conservation, decarbonisation, and energy transition are present in the dataset but are still represented by fewer studies, which limits the ability to make broad generalizations. Lastly, since green hospitality is an evolving field, the findings may shift as new research becomes available, especially concerning AI-driven sustainability, carbon reduction, and regenerative tourism.

Conclusion

This review illustrates that green hospitality has become a multifaceted research area connecting environmental management, green hotels, customer behavior, sustainable tourism, innovation, and decarbonization. Network and density visualizations show that “green hospitality” is the key concept linking various research streams. The most prominent themes include sustainability, environmental management, green hotels, green brand authenticity, and pro-environmental consumption. These results indicate that current research mainly explores how hospitality businesses adopt green practices and how consumers react to green hotels and restaurants.

The analysis also reveals emerging themes in artificial intelligence, biodiversity conservation, agritourism, energy transition, and decarbonisation. These topics are less concentrated in the visualization, suggesting they are still evolving but hold significant potential for future research. Specifically, future work should explore how AI can promote green innovation, how hospitality businesses can aid biodiversity conservation, and how hotels can achieve tangible reductions in energy consumption and carbon emissions.

Overall, the findings indicate that green hospitality research is shifting from a limited focus on green consumer intentions to a wider sustainability agenda. This includes authentic green branding, employee engagement, digital innovation, sustainable tourism development, and low-carbon operations. Future studies should aim to enhance empirical evidence, examine different regional contexts, and connect green hospitality practices with tangible environmental, social, and economic results.

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