

Assessing Guest Knowledge and Awareness of Sustainable Practices in 5- Star Hotels: A Comprehensive Study

Arena Gulia

Assistant Lecturer, Institute of Hotel Management, Catering and Nutrition, Pusa, New Delhi

guliaarena@gmail.com

Abstract

Background: The hospitality industry's commitment to sustainability relies not only on implementation but also on guest awareness and engagement. This study evaluates the degree of guest knowledge about sustainable hotel practices and identifies which practices are most and least recognized. It further explores the sources through which guests learn about these initiatives and examines the correlation between their awareness and willingness to support such efforts. **Objectives:** The study aimed to assess guests' awareness of sustainable practices, determine the most and least known initiatives, identify key information sources, and analyse the relationship between knowledge and willingness to engage in sustainability. **Methodology:** A descriptive research design was employed using a structured questionnaire distributed via convenience sampling. Responses were collected from 385 hotel guests across India. Data analysis through SPSS included descriptive statistics, one-sample t-tests, and Spearman's rho correlation. **Results:** Recycling and waste management programs (mean=3.92) and the use of eco-friendly toiletries (mean=3.80) were the most recognized practices, while energy-efficient HVAC systems (mean=3.35), sewage treatment plants (mean=3.45), and towel reuse programs (mean=3.34) were least known. All practices showed statistically significant mean scores above the hypothesized moderate level of 3 ($p < 0.001$). Social media emerged as the most common information source, followed by hotel websites and in-room materials. However, 17.9% of respondents reported no awareness of any practices, and staff communication was the least reported source. A positive and statistically significant correlation ($p=0.499$, $p < 0.001$) was found between guest knowledge and their willingness to support sustainable initiatives. **Conclusion:** The study emphasizes the need for improved communication and educational strategies within hotels to bridge awareness gaps. Enhancing visibility of sustainability efforts through digital and direct engagement can boost guest participation and contribute to broader environmental goals.

Keywords: Guest knowledge, sustainable practices, hotel sustainability, guest awareness, environmental sustainability, hospitality industry, correlation analysis

Introduction

Sustainability has emerged as a defining element of strategic planning and operational excellence in the hospitality industry. With growing awareness of global environmental challenges, the hospitality sector faces increasing scrutiny for its significant ecological footprint. Hotels, as resource-intensive establishments, consume large amounts of energy, water, and raw materials while simultaneously generating

substantial waste and carbon emissions. As environmental concerns such as climate change, biodiversity loss, resource depletion, and pollution intensify, hotels are under mounting pressure to transition toward sustainable business models. These models seek to balance three interrelated dimensions: environmental preservation, social responsibility, and economic viability—collectively known as the triple bottom line (Bohdanowicz, 2006).

The push toward sustainability in hospitality is not only driven by ecological and ethical imperatives but also by market demand. Travelers today, especially younger generations, increasingly prefer eco-friendly accommodations and are willing to pay premiums for businesses that demonstrate commitment to sustainability (Kasim, 2009). Consumers expect hotels to integrate visible green practices into their operations and value transparency in corporate environmental responsibility (Rhou & Singal, 2020). Consequently, sustainability has evolved from being an optional practice to becoming a core part of business strategy. For many hotel brands, sustainability represents both a moral obligation and a source of competitive advantage, influencing consumer preferences, enhancing brand reputation, and securing long-term profitability (Jones et al., 2016; García-Pozo et al. 2022).

Common Sustainable Practices in Hotels: In response to these pressures, hotels worldwide have adopted a wide range of sustainable practices aimed at minimizing environmental impact. Energy efficiency remains a central focus, with initiatives such as energy-efficient lighting systems, smart thermostats, and motion sensor-controlled fixtures reducing consumption significantly. Water conservation is another priority, implemented through low-flow faucets, water-efficient toilets, and rainwater harvesting systems. Hotels also increasingly incorporate renewable energy sources, such as solar and wind, into their infrastructure (Han & Chan, 2013; Hossain et al., 2022).

Waste management represents another area of innovation. Many hotels are replacing single-use plastics with biodegradable alternatives, offering bulk amenities to minimize packaging, and encouraging recycling and composting programs (Mensah, 2006). Digital check-in systems and electronic billing reduce paper waste, aligning convenience with sustainability. Guest involvement is also a defining feature of sustainable hospitality. Practices such as towel and linen reuse programs, reminders to switch off lights and air-conditioning, and campaigns promoting mindful water consumption place sustainability directly into the guest experience (Han et al., 2011; Dube & Nhamo, 2021). Beyond environmental benefits, these practices often reduce operational costs while simultaneously improving guest perceptions of corporate responsibility.

Guest Awareness and Knowledge of Sustainable Practices: Although many hotels have made significant

progress in implementing sustainability initiatives, guest awareness and comprehension of these efforts remain uneven. Visible initiatives—such as recycling bins in guest rooms or linen reuse cards—are typically recognized and appreciated by guests. In contrast, less visible measures, including energy-efficient HVAC systems, sewage treatment plants, or back-end food waste reduction strategies, frequently go unnoticed unless explicitly communicated (Han et al., 2010). This discrepancy highlights a critical gap between implementation and perception.

Recent studies suggest that environmentally conscious guests not only notice sustainability practices but also factor them into their decision-making processes when selecting accommodations (Chung & Kim, 2021). Moreover, guests with higher environmental concern are more likely to reward hotels with loyalty and positive word-of-mouth. The COVID-19 pandemic has further reinforced the link between sustainability and health, as travellers increasingly associate eco-friendly hotels with hygiene, safety, and overall service quality (Rivera et al., 2022). However, the overall level of guest knowledge varies greatly depending on cultural context, previous experiences, and personal values.

Factors Influencing Guest Awareness: Guest awareness of sustainability initiatives is shaped by a complex interplay of demographic, cultural, and psychographic variables. Research indicates that younger generations—particularly Millennials and Generation Z—exhibit the strongest inclination toward sustainable consumption and eco-friendly travel behaviours (Li et al., 2021). Women, across various cultural contexts, consistently demonstrate higher levels of environmental concern and a greater willingness to engage with green initiatives than men (Han et al., 2019). Similarly, higher levels of education and income are often linked with greater environmental awareness and expectations of corporate sustainability (Dolnicar & Leisch, 2008; Laroche et al., 2001).

In addition to demographics, psychographic traits such as pro-environmental attitudes, ecological knowledge, and prior exposure to green practices strongly influence how guests perceive and engage with hotel initiatives. Equally significant is the role of communication. Hotels use a variety of strategies, including in-room signage, digital campaigns, eco-label certifications, and social media outreach, to raise awareness and encourage participation. Studies show that

effective communication enhances not only knowledge but also willingness to act in environmentally friendly ways (Suki & Suki, 2015; Xu & Gursoy, 2021).

Challenges in Educating and Engaging Guests: Despite growing awareness, several challenges persist in effectively educating and engaging guests about hotel sustainability initiatives. One of the main obstacles is the lack of standardization in eco-labels and certification programs. With a proliferation of schemes varying in scope and credibility, guests often find it difficult to differentiate between genuinely sustainable practices and superficial marketing claims, sometimes referred to as “greenwashing” (Font et al., 2012; Rahman et al., 2015).

Another barrier lies in the nature of travel itself. Many guests associate vacations with relaxation, indulgence, and freedom from responsibility, which may create resistance toward behaviours perceived as restrictive or effortful (Gössling, 2002). For example, some guests may resist towel reuse programs or energy conservation reminders, viewing them as inconveniences rather than opportunities to contribute to environmental preservation. Similarly, while digital communication is increasingly effective, hotels often underutilize frontline staff as direct communicators of sustainability. Training staff to confidently and consistently convey information about green practices could significantly improve guest engagement (Chan, 2020).

Additionally, hotels often implement sustainability measures without adequate promotion. Practices such as water recycling systems, food waste management, or eco-friendly supply chain sourcing are critical yet remain invisible to most guests. This lack of visibility not only limits guest appreciation but also reduces opportunities for hotels to strengthen their environmental reputation (García-Pozo et al., 2022).

While prior research highlights the growing importance of sustainability in hotel operations and the need for guest involvement, limited empirical work exists that systematically examines guest knowledge and awareness across specific sustainability domains. There is a lack of clarity on which practices are best understood by guests, which remain obscure, and how different information sources influence guest perception and behaviour. Moreover, while some studies have investigated factors influencing awareness, few

have quantitatively assessed the relationship between guest knowledge and their willingness to participate in sustainable initiatives. The situation is even less explored in the Indian context, where guest behaviour, cultural expectations, and awareness levels may differ from global patterns. This study seeks to bridge this gap by providing empirical insights into the level of guest awareness, sources of information, recognition of different practices, and the correlation between knowledge and behavioural intention in the context of hotel sustainability.

Objectives:

- To assess the degree of awareness and comprehension among guests regarding sustainable practices used by hotels.
- To identify the most known and least known sustainable practices among hotel guests and the sources from which they obtain information about hotel sustainability initiatives.
- To explore the correlation between guest knowledge of sustainable practices and their willingness to participate in or support these initiatives.

Methodology

Research Design: The study adopted a quantitative research design using a survey-based approach to evaluate hotel guests’ knowledge and awareness of sustainable practices. The research is descriptive in nature, aiming to measure and analyse guests’ familiarity with various sustainable activities implemented in hotels and their willingness to participate in them. The study also aimed to examine statistical relationships between levels of knowledge and behavioural intent toward sustainable participation.

Locale: The study was conducted in India, targeting guests who had stayed at 5-star hotels reputed for implementing sustainability practices. The inclusion of such guests ensured that participants had potential exposure to sustainable initiatives during their hotel experience, making them suitable respondents for assessing awareness and knowledge levels.

Sampling Design: A convenience sampling strategy was adopted to collect responses from hotel guests across India. Guests were approached via online platforms such as email, WhatsApp, LinkedIn, and Instagram, enabling access to a geographically diverse sample. A total of 385 hotel guests participated in the study. The sample size was determined

based on Cochran's formula, ensuring a statistically representative sample with a 5% margin of error at a 95% confidence level, suitable for generalizing results within the studied context.

Tools and Technique: Primary data were collected through a structured questionnaire developed in alignment with the research objectives and supported by insights from the literature review. The questionnaire was divided into several sections to capture a comprehensive understanding of guest perspectives. The first section focused on assessing guest knowledge of sustainable practices, with seven items addressing awareness of initiatives such as recycling, towel reuse, eco-friendly toiletries, sewage treatment, and energy-efficient systems. The second section explored sources of awareness by identifying where guests received sustainability-related information, including social media, in-room materials, staff interaction, and hotel websites. The third section measured willingness to participate, capturing guests' intentions to support or engage in sustainable behaviours during their stay. Another section examined the perceived importance of sustainability in shaping hotel experiences, while the final section gathered demographic details such as age, gender, frequency of travel, and prior exposure to sustainable practices. All responses were recorded on a 5-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The questionnaire was administered electronically via Google Forms, ensuring accessibility and ease of participation while maintaining anonymity. Ethical considerations were upheld by clearly informing participants about the purpose of the study and ensuring confidentiality of responses.

Data Analysis and Statistical Analysis: The collected data were analysed using SPSS, incorporating both descriptive and inferential statistical techniques to derive meaningful insights. Descriptive statistics were first employed to summarize guest responses through measures such as mean scores, standard deviations, frequencies, and percentages, thereby providing an overview of the dataset. To facilitate comparison and interpretation, composite indices were created by averaging responses within two key categories: knowledge of sustainable practices and willingness to participate in sustainability initiatives. Inferential statistical tests were then conducted to test the hypotheses and draw conclusions beyond descriptive analysis. A one-sample t-test was applied to examine whether the average guest

knowledge scores for each sustainable practice significantly differed from a hypothesized neutral value (mean = 3), which represented moderate awareness. Additionally, Spearman's rho analysis was used to assess the relationship between guests' level of knowledge about sustainability and their willingness to participate in hotel sustainability programs. A significance level of $p < 0.05$ was applied to ensure statistical reliability and validity of the findings.

Results and Discussion

Demographic profile of respondents: The study surveyed a total of 385 hotel guests. In terms of gender distribution, 56.1% of the respondents were male while 43.9% were female, indicating a slightly higher representation of male participants. Regarding the frequency of hotel stays per year, most guests (61.6%) reported staying in hotels 1–2 times annually. A smaller portion (30.9%) stayed 3–5 times per year, while only 7.5% reported staying more than 10 times annually. This suggests that most participants represent occasional leisure or business travellers, with a smaller segment consisting of frequent travellers. These demographics provide important context for interpreting guest awareness and knowledge of sustainable hotel practices, as travel frequency and gender may influence exposure to and perceptions of such initiatives.

Table 1: Demographic Profile of Respondents

Gender	Percentage	Frequency
Male	56.1%	216
Female	43.9%	169
Frequency of Hotel Stays (per year)	Percentage	Frequency
1-2 times	61.6%	237
3-5 times	30.9%	119
More than 10 times	7.5%	29

Degree of awareness and comprehension among guests regarding sustainable practices used by hotels: For this null hypothesis (H_0) was guests generally do not have a moderate level of knowledge and understanding of sustainable practices implemented in hotels. Alternative hypothesis (H_1) was guests generally have a moderate level of knowledge and understanding of sustainable practices implemented in hotels. These hypotheses aim to statistically test whether the average knowledge score of guests significantly differs from a hypothesized "moderate" level (typically represented by a score of 3 on a 5-point Likert scale). A one-sample t-test

was employed to determine if the observed mean guest knowledge score is significantly higher or lower than the neutral benchmark, thereby validating or rejecting the null hypothesis.

Table 2: One-Sample Test

One-Sample Test						
Test Value = 3						
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Towel and linen reuse programs	5.183	384	.000	.335	.21	.46
Energy-efficient lighting and appliances	12.425	384	.000	.717	.60	.83
Water-saving fixtures	15.034	384	.000	.717	.62	.81
Recycling and waste management programs	19.850	384	.000	.925	.83	1.02
Use of eco-friendly toiletries and cleaning products	14.189	384	.000	.803	.69	.91
Energy-efficient HVAC (Heating, Ventilation and AC) systems	5.126	384	.000	.353	.22	.49
Sewage treatment plant	6.202	384	.000	.447	.31	.59

For all seven sustainable practices tested, the results show that the mean guest knowledge score is significantly higher than the hypothesized “moderate” level of 3. This suggests that, on average, guests have a better-than-moderate understanding of these sustainable practices implemented in hotels. The p-values for all tests are below 0.001, indicating strong statistical significance. The confidence intervals do not cross 0, reinforcing that the differences from the test

value are not due to random chance. Thus, we reject the null hypothesis. Each practice’s mean difference shows how much higher the average knowledge score is compared to the moderate level, with “Recycling and Waste Management Programs” having the highest mean difference, suggesting it is the best-known practice among guests.

Identifying the most known and least known sustainable practices among hotel guests: To assess guest awareness, mean scores for various sustainable practices were calculated. Guests rated their awareness on a 5-point Likert scale, where 1 indicated low awareness and 5 indicated high awareness. The results reveal clear differences in knowledge across practices. The findings of the study reveal that guests are most aware of sustainable practices such as recycling and waste management programs (mean=3.92) and the use of eco-friendly toiletries and cleaning products (mean=3.80). These practices appear to be well-recognized due to their visibility and frequent communication within hotel operations. On the other hand, the least known practices include towel and linen reuse programs (mean=3.34), energy-efficient HVAC systems (mean=3.35), and the presence of a sewage treatment plant (mean=3.45). The lower awareness of these practices may be attributed to their less visible nature, as many of them operate behind the scenes, making it difficult for guests to directly perceive or engage with them.

Table 3: Awareness Levels of Sustainable Practices among Guests

Sustainable Practice	Mean ±S.E.
Towel and linen reuse programs	3.34 ±0.065
Energy-efficient lighting and appliances	3.72 ± 0.058
Water-saving fixtures	3.72 ± 0.048
Recycling and waste management programs	3.92 ± 0.047
Use of eco-friendly toiletries and cleaning products	3.80 ± 0.057
Energy-efficient HVAC (Heating, Ventilation and AC) systems	3.35±0.069
Sewage Treatment Plant	3.45±0.072

Sources from which guest obtain information about hotel sustainability initiatives: The responses were analysed to identify the most and least common channels through which guests learn about these initiatives. The findings show that social media emerged as the most common source of information about hotel sustainable practices, highlighting

the growing influence of digital platforms in shaping guest awareness. The hotel website and in-room informational materials together accounted for 38.5% of the sources, indicating that official and direct hotel communication channels also play a significant role. However, a notable 17.9% of respondents reported having no awareness of any sustainable practices in the hotels they visited, pointing to a gap in communication and guest engagement. Additionally, staff communication was the least cited source, with only 10.4% of respondents identifying it as their primary source of information, suggesting that hotels may not be fully leveraging interpersonal interactions to convey sustainability initiatives.

Table 4: Information about the Hotel's Sustainable Practices

			Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.	Hotel website	78	20.3	20.3	20.3
	2.	In-room informational materials	70	18.2	18.2	38.4
	3.	Not aware of any hotel sustainable practices	69	17.9	17.9	56.4
	4.	Social media	128	33.2	33.2	89.6
	5.	Staff communication	40	10.4	10.4	100.0
	Total		385	100.0	100.0	

Correlation between guest knowledge of sustainable practices and their willingness to participate in or support these initiatives: Null hypothesis (H_0) was that there is no positive correlation between the level of guest knowledge about sustainable practices and their willingness to participate in or support these initiatives. Alternative hypothesis (H_1) says that there is a positive correlation between the level of guest knowledge about sustainable practices and their willingness to participate in or support these initiatives.

To examine the relationship between guest knowledge of sustainable practices and their willingness to support or participate in such initiatives, a Spearman's rho test was conducted. The null hypothesis (H_0) assumes no positive correlation between the two variables, whereas the alternative hypothesis (H_1) posits a positive correlation.

Table 5: Correlation Test

			Knowledge	Willingness
Spearman's rho	Knowledge	Correlation Coefficient	1.000	.499**
		Sig. (2-tailed)	.	.000
		N	385	385
	Willingness	Correlation Coefficient	.499**	1.000
		Sig. (2-tailed)	.000	.
		N	385	385

The results of the correlation analysis revealed that Spearman's rho value of 0.499 indicates a moderate positive association between guests' knowledge of sustainable practices and their willingness to participate in or support such initiatives. This finding suggests that as guests' awareness of sustainability measures increases, their likelihood of engaging in eco-friendly behaviours also rises. Furthermore, the significance value ($p < 0.001$) confirms that this relationship is statistically significant, thereby leading to the rejection of the null hypothesis.

Importance of the hotel's sustainable practices: To understand guest perspectives, respondents were asked the specific question: "How important do you feel sustainable practices are in hotels?" measured on a 5-point Likert scale ranging from 1 (Not Important) to 5 (Extremely Important). The results indicate that guests generally view sustainable practices as highly important, with an overall mean score of 4.15. The standard deviation of 0.895 reflects moderate variability in responses, but the median value of 4.00 and the mode of 4 show a strong consensus that sustainability is valued by most participants. The distribution was slightly negatively skewed (skewness = -0.959), suggesting that a majority of respondents leaned toward higher importance ratings, while the kurtosis value of 0.248 indicates the data was close to normal. Reported ratings ranged from 2 to 5, which means that although a few respondents perceived sustainability as less important, the majority consistently evaluated it as very important to extremely important. Collectively, these results emphasize that sustainable practices are not viewed as peripheral initiatives but rather as integral to the hotel experience, shaping guest expectations and influencing overall satisfaction.

The results of this study provide valuable insights into hotel guests' knowledge, awareness, and perceptions of sustainable practices, as well as their willingness to participate

in such initiatives. The findings revealed that guests, on average, demonstrated a better-than-moderate awareness of sustainability measures, particularly those that are more visible such as recycling and waste management programs, and the use of eco-friendly toiletries and cleaning products. These results are consistent with previous studies by Han et al. (2011) and Dolnicar (2010), which emphasized that guests are more likely to recognize and engage with sustainability practices that are directly observable during their stay.

Conversely, the study found that less visible practices, such as energy-efficient HVAC systems, towel and linen reuse programs, and sewage treatment plants, were less known to guests. This aligns with the findings of Baker et al. (2014), who noted that back-of-house sustainability measures often go unnoticed by guests due to their operational rather than experiential nature. However, these results contradict studies such as Millar and Baloglu (2011), which suggested that towel and linen reuse programs are among the more familiar initiatives, given their prevalence in guest-facing communication. The lower recognition of such practices in this study may indicate gaps in how hotels in the sampled region communicate these initiatives.

In terms of sources of awareness, social media was identified as the most common channel through which guests learned about hotel sustainability practices, followed by hotel websites and in-room informational materials. This finding resonates with Rahman et al. (2012), who highlighted the increasing role of digital media in shaping guest perceptions of sustainability. However, the relatively low reliance on staff communication (10.4%) contradicts the work of Berezan et al. (2013), who emphasized that interpersonal interactions with employees can strongly influence guests' perceptions of hotel sustainability efforts. This suggests that hotels may not be fully utilizing their frontline staff as ambassadors of sustainability practices.

The correlation analysis revealed a statistically significant positive association between guest knowledge of sustainable practices and their willingness to participate in or support these initiatives. This supports the arguments of Han and Kim (2010) and Martínez García de Leaniz et al. (2017), who asserted that greater awareness and education enhance pro-environmental behavioural intentions among hotel guests. By contrast, some scholars, such as Nicholls and Kang (2012), have noted that awareness does not always

translate into action, highlighting the importance of designing initiatives that are both convenient and appealing to guests. Nonetheless, the present findings underscore the importance of guest education as a tool for driving behavioural change in the hospitality sector.

Finally, the results indicated that guests generally place a high level of importance on sustainability in their hotel experiences (mean=4.15), suggesting that environmental responsibility is becoming a significant factor in shaping guest expectations and choices. This finding is consistent with studies by Verma and Chandra (2018) and Bohdanowicz (2006), which observed that sustainability has evolved from a niche concern to a mainstream expectation in the hospitality industry.

Overall, the results both confirm and challenge existing literature, highlighting areas where hotel sustainability communication strategies align with global trends, and areas where further improvement is required—particularly in enhancing visibility and communication of less obvious but equally critical sustainable practices.

Conclusion

Based on the findings, the following recommendations are proposed for hotel practitioners and policymakers: Strengthen Communication Channels: Use visual displays, digital signage, and in-room materials to clearly communicate ongoing sustainability practices. Ensure information is concise, engaging, and available in multiple languages to cater to diverse guest demographics. Enhance Staff Training: Train frontline staff to inform and engage guests about sustainability initiatives during check-in or room orientation. Empower employees to answer guest queries confidently and promote eco-friendly behaviours. Leverage Digital Platforms: Integrate sustainability messages into hotel websites, mobile apps, and social media campaigns, as these are primary sources of guest information. Use guest booking confirmations and pre-arrival emails to introduce sustainability features and encourage participation. Highlight Back-of-House Sustainability: Educate guests about less visible practices like HVAC optimization, greywater recycling, and STP usage through behind-the-scenes videos or QR-code linked content. Consider offering eco-tours or sustainability walkthroughs to showcase these efforts. Personalize Sustainable Choices: Offer guests opt-in choices like reduced housekeeping, towel/linen reuse, and eco-

friendly amenities, making them feel part of the solution. Recognize and reward sustainable behaviours with loyalty points, discounts, or green certifications.

References

- Baker, M. A., Davis, E. A., & Weaver, P. A. (2014). Eco-friendly attitudes, barriers to participation, and differences in behavior at green hotels. *Cornell Hospitality Quarterly*, 55(1), 89–99. <https://doi.org/10.1177/1938965513504483>
- Berezan, O., Raab, C., Yoo, M., & Love, C. (2013). Sustainable hotel practices and nationality: The impact on guest satisfaction and guest intention to return. *International Journal of Hospitality Management*, 34, 227–233. <https://doi.org/10.1016/j.ijhm.2013.03.010>
- Bohdanowicz, P. (2006). Environmental awareness and initiatives in the European hospitality industry: The case of Poland. *International Journal of Hospitality Management*, 25(4), 662–682. <https://doi.org/10.1016/j.ijhm.2005.06.006>
- Chan, E. S. W. (2020). The mediating role of environmental communication in hotels: The impact of corporate environmental practices on customer satisfaction. *Journal of Hospitality and Tourism Management*, 44, 41–47. <https://doi.org/10.1016/j.jhtm.2020.04.002>
- Chung, N., & Kim, J. (2021). The impact of hotel sustainability practices on customer satisfaction and loyalty: Moderating role of green knowledge. *Journal of Sustainable Tourism*, 29(12), 1924–1943. <https://doi.org/10.1080/09669582.2020.1858094>
- Dolnicar, S. (2010). Identifying tourists with smaller environmental footprints. *Journal of Sustainable Tourism*, 18(6), 717–734. <https://doi.org/10.1080/09669581003668516>
- Dolnicar, S., & Leisch, F. (2008). Selective marketing for environmentally sustainable tourism. *Tourism Management*, 29(4), 672–680. <https://doi.org/10.1016/j.tourman.2007.07.010>
- Dube, K., & Nhamo, G. (2021). Green recovery strategies for tourism and hospitality post-COVID-19. *African Journal of Hospitality, Tourism and Leisure*, 10(1), 119–135. <https://doi.org/10.46222/ajhtl.19770720-85>
- Font, X., Walmsley, A., Cogotti, S., McCombes, L., & Häusler, N. (2012). Corporate social responsibility: The disclosure–performance gap. *Tourism Management*, 33(6), 1544–1553. <https://doi.org/10.1016/j.tourman.2012.02.012>
- García-Pozo, A., Mondéjar-Jiménez, J., & Sánchez-Ollero, J. L. (2022). Eco-innovation and sustainability in the hotel industry: Evidence from Spain. *International Journal of Hospitality Management*, 102, 103148. <https://doi.org/10.1016/j.ijhm.2022.103148>
- Gössling, S. (2002). Global environmental consequences of tourism. *Global Environmental Change*, 12(4), 283–302. [https://doi.org/10.1016/S0959-3780\(02\)00044-4](https://doi.org/10.1016/S0959-3780(02)00044-4)
- Han, H., & Chan, E. S. W. (2013). Perception of green hotel practices: A comparison between guests and managers. *International Journal of Hospitality Management*, 34, 141–151. <https://doi.org/10.1016/j.ijhm.2013.03.010>
- Han, H., & Hsu, L.-T. (Jane), & Sheu, C. (2010). Application of the theory of planned behavior to green hotel choice: Testing the effect of environmentally friendly activities. *Tourism Management*, 31(3), 325–334. <https://doi.org/10.1016/j.tourman.2009.03.013>
- Han, H., & Kim, Y. (2010). An investigation of green hotel customers' decision formation: Developing an extended model of the theory of planned behavior. *International Journal of Hospitality Management*, 29(4), 659–668. <https://doi.org/10.1016/j.ijhm.2010.01.001>
- Han, H., Hsu, L.-T. J., Lee, J.-S., & Sheu, C. (2011). Are lodging customers ready to go green? An examination of attitudes, demographics, and eco-friendly intentions. *International Journal of Hospitality Management*, 30(2), 345–355. <https://doi.org/10.1016/j.ijhm.2010.07.008>
- Han, H., Yu, J., Kim, W., & Kim, H. (2019). Impact of social value, environmental concern, and perceived health value on behavioral intention for green hotels: The moderating effect of gender. *Sustainability*, 11(13), 3667. <https://doi.org/10.3390/su11133667>
- Hossain, M., Akter, S., & Dwivedi, Y. K. (2022). Green innovation in hotels: Role of eco-technology adoption and environmental management. *Technological Forecasting and Social Change*, 180, 121693. <https://doi.org/10.1016/j.techfore.2022.121693>
- Jones, P., Hillier, D., & Comfort, D. (2016). Sustainability in the global hotel industry. *International Journal of Contemporary Hospitality Management*, 28(1), 36–67. <https://doi.org/10.1108/IJCHM-10-2014-0510>
- Kasim, A. (2009). Managerial attitudes towards environmental management among small and medium hotels in Kuala Lumpur. *Journal of Sustainable Tourism*, 17(6), 709–725. <https://doi.org/10.1080/09669580902928468>

- Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18(6), 503–520. <https://doi.org/10.1108/EUM000000000006155>
- Li, J., Yang, Y., & Ren, L. (2021). Understanding the green consumption behavior of Generation Z: Evidence from the hospitality industry. *Sustainability*, 13(9), 4827. <https://doi.org/10.3390/su13094827>
- Martínez García de Leaniz, P., Herrero Crespo, Á., & Gómez López, R. (2017). Customer responses to environmentally certified hotels: The moderating effect of environmental consciousness on the formation of behavioral intentions. *Journal of Sustainable Tourism*, 26(7), 1160–1177. <https://doi.org/10.1080/09669582.2017.1349775>
- Mensah, I. (2006). Environmental management practices among hotels in the Greater Accra region. *International Journal of Hospitality Management*, 25(3), 414–431. <https://doi.org/10.1016/j.ijhm.2005.02.003>
- Millar, M., & Baloglu, S. (2011). Hotel guests' preferences for green guest room attributes. *Cornell Hospitality Quarterly*, 52(3), 302–311. <https://doi.org/10.1177/1938965511409031>
- Nicholls, J. A. F., & Kang, S. (2012). Going green: The adoption of environmental initiatives in the hotel industry. *Journal of Hospitality Marketing & Management*, 21(6), 678–703. <https://doi.org/10.1080/19368623.2012.624294>
- Suki, N. M., & Suki N.M. (2015). Consumers' environmental behaviour towards staying at a green hotel: Moderation of green hotel knowledge. *Management of Environmental Quality: An International Journal*, 26 (1), 103–117. <https://doi.org/10.1108/MEQ-02-2014-0023>
- Rahman, I., Park, J., & Chi, C. G. (2015). Consequences of “greenwashing”: Consumers' reactions to hotels' green initiatives. *International Journal of Contemporary Hospitality Management*, 27(6), 1054–1081. <https://doi.org/10.1108/IJCHM-04-2014-0202>
- Rahman, I., Reynolds, D., & Svaren, S. (2012). How “green” are North American hotels? An exploration of low-cost adoption practices. *International Journal of Hospitality Management*, 31(3), 720–727. <https://doi.org/10.1016/j.ijhm.2011.09.008>
- Rhou, Y., & Singal, M. (2020). The influence of corporate social responsibility on hotel performance: Examining mediating mechanisms. *International Journal of Hospitality Management*, 87, 102382. <https://doi.org/10.1016/j.ijhm.2020.102382>
- Rivera, M., Croes, R., & Zhong, Y. (2022). Sustainability and post-COVID-19 tourism recovery: Building back better. *Tourism Management Perspectives*, 42, 100950. <https://doi.org/10.1016/j.tmp.2022.100950>
- Verma, V. K., & Chandra, B. (2018). An application of theory of planned behavior to predict young Indian consumers' green hotel visit intention. *Journal of Cleaner Production*, 172, 1152–1162. <https://doi.org/10.1016/j.jclepro.2017.10.047>
- Xu, S., & Gursoy, D. (2021). The influence of sustainable hospitality practices on customers' green behavioral intentions: The moderating role of customer awareness. *Tourism Management*, 85, 104284. <https://doi.org/10.1016/j.tourman.2021.104284>
- Suki, N. M., & Suki N.M. (2015). Consumers' environmental behaviour towards staying at a green hotel: Moderation of green hotel knowledge. *Management of Environmental Quality: An International Journal*, 26 (1), 103–117. <https://doi.org/10.1108/MEQ-02-2014-0023>