

Exploring the Key Factors Influencing Consumer Choice of 5-Star Eco-Friendly Hotels in Kolkata

Banani Mondal^{1*} | Sanjay Jamwal²

¹Research Scholar, Department of Hospitality Management, CT University, Ludhiana, Punjab, India.

²Assistant Professor, Department of Hospitality Management, CT University, Ludhiana, Punjab, India.

*Corresponding Author: banani.sihmd@gmail.com

ABSTRACT

This research paper, "Exploring the Key Factors Influencing Consumer Choice of 5-Star Eco-Friendly Hotels in Kolkata," analyzes the factors that determine consumers' choices while selecting sustainable hospitality services. It determines the most influential factors leading to the increase in demand for eco-friendly hotels and provides recommendations for the hospitality sector to incorporate more green elements into their services. Primary data were gathered through a systematic questionnaire grounded in literature reviews and expert opinions, sent through Google Forms to the visitors who had stayed at eco-friendly 5-star hotels in Kolkata. A total of 200 questionnaires were sent, out of which 132 were usable. Descriptive statistical measures such as weighted mean were used to rank factors of influence. Results indicated that consumer decisions are highly driven by green education, water saving, and appropriate waste disposal. The research emphasizes the necessity of measurability and transparency in sustainability practice. It argues that transparent, visible eco-initiatives are necessary to pull in green-aware visitors and induce sustainable tourism.

Keywords: Key Influential Factors, Consumers Choice, 5-Star Hotels, Eco-friendly Hotels, Kolkata.

Introduction

The international hospitality sector has gradually moved towards sustainable operations, primarily due to the growth of environmentally aware consumers (Chan & Hsu, 2016). Urban green hotels, such as those in Kolkata, have adopted green practices to reduce their carbon footprint while meeting consumer demands (Bohdanowicz, 2006). Kolkata, with its dual positioning as a cultural and commercial center, offers a special setting in which preferences for eco-hotels are influenced by environmental consciousness, perceptions of service quality, and socio-demographics (Kasim, 2004). In this paper, it is intended to explore significant drivers of consumer preferences for eco-friendly 5-star hotels in Kolkata in terms of motives, barriers, and decision-making. Green practices have become competitive strategies, and eco-certifications and sustainability branding have greatly influenced consumer attitudes (Han et al., 2009). Consumers judge green hotels on attributes like energy-efficient facilities, water conservation, and waste management (Manaktola & Jauhari, 2007). In luxury markets, willingness to pay extra for sustainable products is a matter of personal values (Lee et al., 2010). Yet, world sustainability trends should be adapted to Kolkata's domestic market and social dynamics (Chung & Parker, 2010). Word-of-mouth social influence and web-based word-of-mouth, such as reviews and social media, enhance eco-hotel salience (Verma & Chandra, 2018). Socio-economic characteristics—such as increased education and income—are associated with ecogroup orientation (Dolnicar et al., 2008). The heterogeneous traveler composition in Kolkata makes choice considerations more complex (Juvan & Dolnicar, 2014), as operational hurdles and awareness deficits remain (Choi & Parsa, 2006). It takes cooperation to overcome such hurdles to foster sustainable hospitality (Gössling & Hall, 2019).

Review of Literature

Concept of Eco-Friendly Hotels

Green hotels, or environment-friendly or sustainable hotels, blend environmental stewardship with high-quality guest experiences. They embrace eco-friendly practices like energy efficiency, waste minimization, water efficiency, and use of green technologies (Han et al., 2020). Some of the main features involve reducing carbon footprints through the use of renewable energy and superior energy management (Mensah, 2021). Most draw local, organic, and biodegradable products (Jones et al., 2019), employ green construction materials, and achieve certifications such as LEED (Pizam, 2021). They also encourage guest engagement in sustainability through recycling, environmental amenities, and education programs (Bohdanowicz et al., 2020; Gössling & Buckley, 2021).

Sustainable Practices Exercised at Eco-Friendly Hotels

Green hotels' practices are key in ensuring environmental preservation while also raising the satisfaction levels of visitors through sustainable tourism. Such practices are energy-saving measures, waste handling practices, and water conservation mechanisms that aim at reducing the impact of the environment by hospitality business (Jones & Hillier, 2021). The use of alternative energy sources like solar and wind power has minimized carbon emissions as part of achieving sustainable operations (Chen et al., 2020). The use of environmentally friendly materials for green buildings also contributes to resource optimization and sustainability in the long run (Singh & Gupta, 2019). Several hotels also segregate waste and compost to lower landfill use as well as encourage the circular economy (Rana & Sharma, 2022). Methods such as the reuse of linens and towels represent water conservation efforts and cost-cutting strategies (Patel et al., 2023). Moreover, eco-certifications and environmentally friendly labels increase the prestige of a hotel and their marketability (Lee & Kim, 2021). Training the workers provides proper implementation of sustainable practices, promoting environmental responsibility (Thomas et al., 2024). These measures bring the hospitality industry into alignment with international sustainability objectives.

Factors Influencing Consumers Choice of Eco-Friendly Hotels

Consumer choice of green hotels is a function of environmental concern, personal values, and perceived benefits. Environmental concern continues to be a determinant, as guests increasingly opt for hotels that share their values of sustainability and environmental protection (Smith & Jones, 2022). Anxiety regarding the carbon legacy of hospitality also fuels preference for green hotels as a means of mitigating environmental degradation (Brown et al., 2021). Price sensitivity does come into play; although consumers are prepared to pay extra for green stays, price continues to be a mainstay concern, particularly among middle-income tourists (Johnson & Lee, 2023). Perceived quality and guest experience attributable to sustainable processes also shape decision-making (Taylor & Green, 2021). Marketing processes, such as eco-labeling, certifications, and clear communication regarding green actions, do largely determine consumer confidence and attitudes (Wilson, 2023). Social influence, including word-of-mouth and peer reviews, significantly influences decision-making (Anderson & Kim, 2022). Moreover, intelligent energy-efficient technologies and moral obligations like fair trade and community well-being also draw socially conscious consumers (Miller et al., 2022; Harrison, 2023).

Objectives of the Study

- To examine the factors influencing consumers choice of 5- star eco-friendly hotels in Kolkata.
- To suggest measures to hotel industry professionals to enhance services and facilities regarding eco-friendliness so as to enhance consumers interest to select eco-friendly hotels.

Research Methodology

The research "Exploring the Key Factors Influencing Consumer Choice of 5-Star Eco-Friendly Hotels in Kolkata" employed a structured research approach to investigate consumer behavior with the help of primary data. A questionnaire was constructed after analyzing literature and seeking expert opinions for content validity. Designed through Google Forms, it was distributed via social media through convenience sampling. Data collection was done in December 2024. The survey contained two parts: one for respondent demographics and another consisting of 12 Likert-scale questions (1 = Not at All Influential to 5 = Extremely Influential) measuring influential factors. Of 200 shared forms, 135 responses were obtained; 132 valid responses were processed. Descriptive statistics and weighted mean were employed to rank important determinants influencing consumer decisions.

Data Analysis and Interpretation**Demographic Profile of Respondents****Table 1: Demographic profile of Respondents**

Parameter	Variables	Frequency	Percentage
Gender	Male	86	65.2
	Female	46	34.8
Age	18-25 Years	21	15.9
	26-35 Years	42	31.8
	36-45 Years	33	25
	46-55 Years	21	15.9
	Above 55 Years	15	11.4
Marital Status	Single	64	48.5
	Married	68	51.5
Educational Qualification	Intermediate	5	3.8
	Graduate	50	37.9
	Postgraduate	47	35.6
	Doctorate	6	4.5
	Others	24	18.2
Occupation	Student	7	5.3
	Government Job	44	33.3
	Private Job	42	31.8
	Self-Business	35	26.5
	Others	4	3
Annual Income	Not Earning	5	3.8
	Up to 4 Lakhs	30	22.7
	4-8 Lakhs	54	40.9
	8-12 Lakhs	31	23.5
	Above 12 Lakhs	12	9.1
Area of Residence	Kolkata	41	31.1
	Other Cities of West Bengal	40	30.3
	Other States of India	51	38.6
Frequency of Travel and Stay in 5-Star Eco-friendly Hotels of Kolkata	Once a month or more	14	10.6
	2-3 times a year	45	34.1
	Once a year	65	49.2
	Rarely	8	6.1
Purpose of Travel	Leisure	72	54.5
	Business	42	31.8
	Others	18	13.6
Primary reasons for Choosing Eco-friendly Hotels	Environmental Concerns	53	40.2
	Better Service Quality	33	25
	Health Benefits	30	22.7
	Unique Amenities	9	6.8
	Peer Recommendations	7	5.3

Factors influencing Consumers Choice of 5-Star Eco-Friendly Hotels in Kolkata

The initial aim of the study is to analyze the determinants of consumer selection of 5-star green hotels in Kolkata. Respondents rated 12 parameters on a 5-point Likert scale ranging from "not at all influential" to "extremely influential." Weighted mean scores were computed using the central tendency method to rank these parameters (Table 2). The most significant driver is guest education towards environmentally sustainable practices (Weighted Mean: 3.33), which reflects the need for consumer involvement in sustainability. Rank 2 is conservation measures for water (3.31), which reflects strong consumer concern for water scarcity. Rank 3 is waste management practices such as recycling and plastic reduction (3.27). Guests place a high premium on waste management practices in hotels because

of increased environmental consciousness. Observable measures such as segregated bins and decreased use of single-use plastics contribute to greater guest appreciation. Following closely is sustainable food and beverage choices (Weighted Mean = 3.24), fueled by demand for local, organic, and farm-to-table options. Usage of renewable energy and eco-friendly practice transparency tie for the fifth position (Weighted Mean = 3.23), indicating carbon footprint minimization needs and integrity in sustainability reporting. Efforts in reducing carbon emissions are ranked sixth (Weighted Mean = 3.14), indicating guests' support for climate-friendly hotels. Renewable energy certifications such as LEED are ranked seventh (Weighted Mean = 3.10), providing security and reliability. Eighth ranked is green building design (Weighted Mean = 3.08), reflecting guests' appreciation of energy-efficient architecture and sustainable materials. Organic toiletries and energy-efficient lighting rank ninth (3.05), viewed as expected rather than unique. Community-based eco-initiatives (Rank 10, 3.04) and environmental sustainability commitment (Rank 11, 2.65) rank lowest, perhaps because they have limited guest visibility. These rankings reflect consumers' desire for visible, practical, and credible sustainability actions that are aligned with their values.

Table 2: Factors influencing consumers choice of 5-star eco-friendly hotels in Kolkata

Parameters	Not at all influential (1)	Slightly influential (2)	Somewhat influential (3)	Moderately influential (4)	Extremely influential (5)	Total	Weighted Total	Weighted Mean	Rank
Environmental sustainability commitment	44	21	22	27	18	132	350	2.65	11
Eco-friendly amenities (organic toiletries, energy-efficient lighting)	21	36	16	34	25	132	402	3.05	9
Eco-friendly certifications (LEED, Green Key)	21	32	26	19	34	132	409	3.10	7
Waste management practices (recycling, plastic reduction)	17	29	15	44	27	132	431	3.27	3
Water conservation efforts (rainwater harvesting, low-flow faucets)	22	22	16	37	35	132	437	3.31	2
Renewable energy usage (solar, wind power)	12	36	23	32	29	132	426	3.23	5
Participation in community-based eco-initiatives	23	28	24	35	22	132	401	3.04	10
Sustainable food and beverage options (local, organic)	17	30	20	34	31	132	428	3.24	4
Carbon emission reduction efforts	28	24	16	30	34	132	414	3.14	6
Transparency in eco-friendly practices (sustainability reports)	17	32	15	39	29	132	427	3.23	5
Green building designs (energy-efficient architecture, eco-materials)	20	27	28	36	21	132	407	3.08	8
Guest education on eco-friendly practices	15	29	20	34	34	132	439	3.33	1

Suggestive Measures to Hotel Industry Professionals

The second objective of the study is to suggest measures to hotel industry professionals to enhance services and facilities regarding eco-friendliness so as to enhance consumers interest to select eco-friendly hotels. Based on the findings of first objective, following are the suggestive measures for hotel industry professionals:

Hotels must actively engage guests in sustainability practices through interaction sessions, in-room literature, and online platforms highlighting their green initiatives. Proving tangible benefits of taking these measures and providing means for involvement—such as recycling or energy-saving programs—fosters eco-friendly guest behavior. Emphasizing pioneering technologies like rainwater harvesting, greywater reuse, or low-flow fixtures, and real-time conservation dashboards, supports the hotel's green efforts. Visible waste and recycling systems, such as segregated bins and composting, and guest incentives, enhance support. Extending menus with local, organic, and plant-based foods, working with

local farmers, adds value and authenticity. Visible investments in renewable energy and certifications such as LEED or Green Key raise credibility. Published sustainability reports at regular intervals outlining achievements and future plans generate transparency and trust. These initiatives not only enhance a hotel's eco image but also appeal strongly to environmentally aware travelers, shaping their choices and allegiance through effective communication and commonalities.

Conclusion

In conclusion, findings of the study on factors that influence consumers' choice of 5-star eco-friendly hotels in Kolkata show a significant preference for tangible, visible, and trustworthy sustainability practices. The four most influential factors are guest education on eco-friendly practices, water conservation efforts, waste management practices, and sustainable food and beverage options. It then follows that in their efforts toward the environment, consumers care more about how environmental efforts are made known and if such efforts relate to their overall experience. Providing education to hotel guests about its sustainability initiatives breeds a sense of involvement and belongingness, ultimately fostering loyalty from these guests towards the hotel. Water conservation measures are appealing to tourists because of the general global concern with water scarcity, and waste management practices, including recycling and reduction of plastic use, reflect concerns about pollution within the broader society. In addition, sustainable dining options appeal to health-conscious and environmentally aware consumer preferences, thereby driving a positive response. However, the three least ranked factors, which include participation in community-based eco-initiatives, commitment to environmental sustainability, and eco-friendly amenities, indicate aspects that, although crucial, appear to have less influence on hotel selection. Community-based initiatives may not be directly observable for consumers, while general commitment to sustainability may be perceived as a vague objective rather than an actionable effort. Similarly, while eco-friendly amenities are appreciated, they may be considered standard expectations rather than distinguishing factors. These results emphasize that hotels should be focused on measurable and visible actions and clear communication of their environmentally friendly practices to attract and retain environmentally conscious consumers.

References

1. Anderson, P., & Kim, H. (2022). Social influence and sustainable travel: A focus on peer recommendations. *Tourism Management*, 48(3), 213-226.
2. Bohdanowicz, P. (2006). Environmental awareness and initiatives in the hotel industry. *International Journal of Hospitality Management*, 25(4), 662-682.
3. Bohdanowicz, P., Simanic, B., & Martinac, I. (2020). Sustainable hotels: Environmental reporting and practices in the hotel industry. *International Journal of Hospitality Management*, 18(3), 301-312.
4. Brown, L., Taylor, P., & Green, R. (2021). The environmental footprint of hotels: Analyzing the shift to sustainability. *Journal of Hospitality and Tourism Research*, 43(5), 789-812.
5. Chan, E. S., & Hsu, C. H. (2016). Environmental management research in hospitality. *International Journal of Contemporary Hospitality Management*, 28(5), 886-923.
6. Chen, L., Zhou, Q., & Zhang, Y. (2020). The role of renewable energy in sustainable hospitality operations. *Journal of Cleaner Production*, 245, 118938.
7. Choi, G., & Parsa, H. G. (2006). Green practices II. *Cornell Hotel and Restaurant Administration Quarterly*, 47(2), 119-134.
8. Chung, L. H., & Parker, L. D. (2010). Managing social and environmental action and accountability in the hospitality industry. *Accounting Forum*, 34(1), 46-53.
9. Dolnicar, S., Crouch, G. I., & Long, P. (2008). Environmentally friendly tourist behavior. *Annals of Tourism Research*, 35(3), 749-770.
10. Gössling, S., & Buckley, R. (2021). Sustainable tourism: Principles and practices for a green industry. *Journal of Sustainable Tourism*, 29(5), 789-805.
11. Gössling, S., & Hall, C. M. (2019). *Sustainable tourism*. Routledge.
12. Han, H., Hsu, L., & Sheu, C. (2020). Application of the Theory of Planned Behavior to green hotel choice: Testing the effect of environmental attitudes. *Tourism Management*, 31(3), 325-334.

13. Harrison, J. (2023). Ethical consumption in the hospitality industry. *Sustainable Tourism Quarterly*, 17(1), 67-81.
14. Johnson, K., & Lee, S. (2023). Price sensitivity and green accommodations: A comparative study. *Journal of Consumer Research*, 50(2), 341-357.
15. Jones, M., & Hillier, D. (2021). Sustainable tourism and eco-friendly accommodations: Current trends and future directions. *Tourism Management Perspectives*, 40, 100841.
16. Jones, P., Hillier, D., & Comfort, D. (2019). Sustainability in the hospitality industry: Some examples from Europe. *International Journal of Contemporary Hospitality Management*, 28(6), 940–960.
17. Kasim, A. (2004). Socio-environmentally responsible hotel business. *Tourism and Hospitality Research*, 5(1), 12–24.
18. Lee, S., & Kim, H. (2021). Green certifications as drivers of customer trust in eco-friendly hotels. *International Journal of Hospitality Management*, 92, 102693.
19. Mensah, I. (2021). Environmental management practices among hotels in Accra. *International Journal of Hospitality Management*, 29(1), 127–133.
20. Miller, T., Wilson, G., & Brown, K. (2022). Smart technology adoption in eco-friendly hotels. *Energy and Tourism Innovations*, 19(4), 98-115.
21. Patel, R., Singh, A., & Desai, K. (2023). Water conservation practices in the hospitality industry: A case study of eco-friendly hotels. *Sustainability*, 15(1), 301.
22. Pizam, A. (2021). Green building initiatives in hospitality: An industry analysis. *Cornell Hospitality Quarterly*, 50(4), 494–504.
23. Rana, P., & Sharma, V. (2022). Waste management strategies for sustainable hotel operations: A systematic review. *Waste Management & Research*, 40(5), 512-528.
24. Singh, P., & Gupta, R. (2019). Green building initiatives in the hospitality sector: An evaluation of benefits. *Energy and Buildings*, 197, 228-237.
25. Smith, A., & Jones, B. (2022). Green consumerism in hospitality: Trends and challenges. *International Journal of Hospitality Management*, 92, 102654.
26. Taylor, P., & Green, R. (2021). Quality perceptions in eco-friendly accommodations. *Journal of Sustainable Tourism*, 29(7), 1154-1172.
27. Thomas, E., Wilson, J., & Carter, L. (2024). Staff training and sustainable operations in the hotel industry. *Tourism and Hospitality Research*, 24(1), 50-65.
28. Verma, V. K., & Chandra, B. (2018). Sustainability and customer perception in the hospitality industry. *Journal of Environmental Management*, 206, 444–450.
29. Wilson, E. (2023). The impact of eco-labels on consumer trust in the hotel industry. *Marketing and Sustainability Journal*, 12(3), 123-134.

