

Green Service and Customer Satisfaction in the Nepalese Hotel Industry: A Path to Sustainable Hospitality

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Abstract

Sustainable practices in the hospitality industry are increasingly recognized as key drivers of customer satisfaction and loyalty, yet in Nepal empirical evidence on how green service practices shape guest experiences in hotels remains limited. This study aims to examine the perceptions of foreign customers regarding green service initiatives in major Kathmandu hotels and to analyze the relationship between green service and customer satisfaction. Employing a descriptive and causal-comparative design, data were collected from 73 foreign guests using structured questionnaires. The findings indicate that guests perceive green service initiatives, such as the use of sustainable materials, energy-efficient operations, waste management practices, and locally sourced ingredients—positively, and overall customer satisfaction was high, with most respondents expressing intentions to revisit and recommend the hotels. Statistical analyses revealed a significant positive relationship between green service and satisfaction (Kendall's $\tau = .334$, $p < .01$), and regression results confirmed that green service significantly predicts customer satisfaction ($\beta = .378$, $p = .001$), explaining 24.3% of the variance. The study concludes that green service practices constitute an important driver of customer satisfaction in Nepalese hotels, enhancing guest experiences while supporting sustainable hospitality development, and provides

early empirical evidence in the Nepalese context to inform hotel managers seeking to integrate sustainability with service excellence.

Keywords: Green Service Practices; Customer Satisfaction; Hotels; Nepal; Sustainable Hospitality.

INTRODUCTION

Sustainability has emerged as a central concern in the global hospitality industry, driven by increasing awareness of environmental issues and growing consumer demand for responsible business practices (Mironova et al., 2025). Hotels, as key players in tourism, face mounting pressure to implement green service initiatives including energy-efficient technologies, waste management systems, sustainable materials, and the use of locally sourced ingredients to reduce their environmental footprint while enhancing operational efficiency (Sirivadhanawaravachara, 2025). These initiatives are not only critical for environmental stewardship but also contribute to enhancing the overall guest experience. Previous research suggests that customers tend to value hotels that demonstrate a commitment to sustainability, and such practices can positively influence customer perceptions, satisfaction, and loyalty (Thai et al., 2022; Zareh et al., 2023; Gli et al., 2025).

Customer satisfaction is a fundamental determinant of business success in the hospitality sector. Satisfied customers are more likely to revisit, provide positive recommendations, and develop loyalty toward the hotel, all of which contribute to long-term profitability (Nobar & Rostamzadeh, 2018). Integrating green practices into service delivery can strengthen customer satisfaction by signaling a hotel's commitment to social responsibility and by creating a sense of value among environmentally conscious guests (Chang et al., 2024). Moreover, green service initiatives can serve as differentiation strategies, allowing hotels to compete in an increasingly crowded market by offering unique experiences that align with contemporary consumer values (Panwar et al., 2016).

In Nepal, the hospitality industry plays a pivotal role in supporting tourism and contributing to economic growth. The Kathmandu Valley, in particular, hosts several leading hotels that cater to both domestic and international visitors. While the global hospitality literature has extensively explored the effects of green practices on customer satisfaction, there remains a lack of empirical studies focusing on the Nepalese context. Understanding

how foreign customers perceive green service initiatives and how these initiatives influence their satisfaction is critical for hotel managers seeking to enhance service quality while promoting sustainability.

The current study addresses this gap by assessing the perceptions of foreign customers regarding green service practices in leading hotels of Kathmandu Valley, including Kathmandu Marriott Hotel, Hotel Himalaya, Radisson Hotel Kathmandu, and The Dwarika's. By examining the relationship between green service and customer satisfaction, the study aims to provide empirical evidence on how environmentally friendly practices influence guest experiences in Nepalese hotels.

METHODS

This study adopted a descriptive and causal-comparative research design to examine the relationship between green service practices and customer satisfaction in the Nepalese hotel industry. The research was conducted in Kathmandu Valley, targeting four major hotels: Kathmandu Marriott Hotel, Hotel Himalaya, Radisson Hotel Kathmandu, and The Dwarika's. A total of 73 foreign customers participated in the study, selected using a convenience sampling technique due to their accessibility and availability during the data collection period. Prior to data collection, formal permission was obtained from the management of each hotel, and individual informed consent was secured from all respondents to ensure ethical compliance. Data were collected using structured questionnaires based on a 5-point Likert scale to capture perceptions of green service and customer satisfaction. For data analysis, SPSS software was used. Both descriptive statistics (such as frequency, percentage, mean, and standard deviation) and inferential statistics (including correlation and regression analysis) were employed to examine the patterns, relationships, and impact of green service on customer satisfaction. The combined approach allowed the study to describe the respondents' perceptions, assess the strength and direction of relationships, and determine the predictive influence of green service practices on customer satisfaction.

RESULTS

The Results section presents the study's key findings, including demographic characteristics of the respondents, which provide context for interpreting the data. It also details the relationship between green service and customer satisfaction through correlation analysis and examines the impact of green service on satisfaction using regression analysis.

Demographic Information

Table 1: Gender

Gender	Frequency	Percent
Male	43	58.9
Female	24	32.9
Prefer not to say	6	8.2
Total	73	100.0

Field Survey, 2025

The gender distribution of the respondents shows that a majority were male, accounting for 58.9% of the total sample. Female participants made up 32.9%, representing nearly one-third of the respondents. Additionally, 8.2% of the participants chose not to disclose their gender. With a total sample size of 73, the data indicates that male respondents were more prominently represented compared to other groups, while a smaller yet notable proportion preferred not to reveal their gender.

Table 2: Education

Level	Frequency	Percent
Less than High School	7	9.6
High School Graduate	22	30.1
Bachelor Degree	32	43.8
Master Degree or +	12	16.4
Total	73	100.0

Field Survey, 2025

The educational background of the respondents shows that the largest proportion, 43.8%, had completed a Bachelor's degree, making it the most common qualification in the sample. This is followed by 30.1% who were high school graduates. A smaller but notable

group, 16.4%, had earned a Master’s degree or higher, reflecting a segment with advanced education. Additionally, 9.6% of the respondents had an education level below high school. Overall, with a total of 73 participants, the sample is dominated by individuals with undergraduate education, while participants with lower or higher educational attainment form smaller portions of the group.

Table 3: Nationality

Nationality	Frequency	Percentage
India	13	17.8%
Australia	10	13.7%
China	10	13.7%
USA	7	9.6%
Thailand	5	6.8%
UK	5	6.8%
Japan	4	5.5%
Poland	4	5.5%
Bangladesh	3	4.1%
Italy	3	4.1%
Other*	10	13.7%
Total	73	100.0%
<i>Other*' category combines nationalities with 2 or fewer respondents: Germany (3), Uganda (2), Jordan (1), Indonesia (1), Portugal (1), and Spain (1).</i>		

Field Survey, 2025

The nationality distribution of the 73 respondents reflects a diverse international sample. The largest group came from India (17.8%), followed by participants from Australia (13.7%), China (13.7%), and the other category (13.7%), which combines several nationalities with smaller representation. Respondents from the USA accounted for 9.6%, while Thailand and the UK each contributed 6.8%. Smaller proportions were observed from Japan (5.5%), Poland (5.5%), Bangladesh (4.1%), and Italy (4.1%). The “Other” category includes nationalities with two or fewer respondents, such as Germany, Uganda, Jordan, Indonesia, Portugal, and Spain. Overall, the data indicates substantial international diversity, with no single country dominating the sample overwhelmingly.

Table 4: Occupation

Occupation	Frequency	Percentage
Business	15	20.5%
Traveller	9	12.3%
Service	8	11.0%
Students	8	11.0%
Banker	5	6.8%
IT	5	6.8%
Teacher	4	5.5%
Artist	3	4.1%
Engineer	3	4.1%
Nurse	2	2.7%
Other*	15	20.5%
Total	73	100.0%

*The "Other" category combines 15 occupations with only 1 respondent each (e.g., Chef, Professor, Shopkeeper, Entrepreneur, etc.).

Field Survey, 2025

The occupation distribution of the 73 respondents shows a wide variety of professional backgrounds. The largest groups were Business professionals (20.5%) and individuals categorized under other (20.5%), the latter representing fifteen different single-respondent occupations such as chef, professor, shopkeeper, and entrepreneur. Travellers made up 12.3%, while both the Service sector and Students each accounted for 11.0% of the sample. Smaller but notable groups included Bankers (6.8%), IT professionals (6.8%), and Teachers (5.5%). A few respondents identified as Artists (4.1%), Engineers (4.1%), and Nurses (2.7%). Overall, the results indicate a highly diverse occupational mix, with no single profession dominating the sample, reflecting a wide range of perspectives from various fields.

Table 5: Age

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Age	73	21.00	69.00	38.3151	10.44014

Field Survey, 2025

The descriptive statistics for age show that the 73 respondents ranged widely in age, with the youngest being 21 years old and the oldest 69 years old. The average (mean) age of the participants was 38.32 years, indicating that the sample consists mostly of middle-aged individuals. The standard deviation of 10.44 suggests a moderate level of age variation within the group, meaning the respondents' ages were spread out across different age groups rather than clustered closely around the mean. Overall, the age distribution reflects a diverse mix of younger, middle-aged, and older participants.

Perception

Table 6: Perception on Green Service

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
S44: The hotel's restaurant makes use of environmentally friendly materials.	1 (1.4%)	1 (1.4%)	20 (27.4%)	38 (52.1%)	13 (17.8%)
S47: The employees here handle food waste in an appropriate and sustainable way.	1 (1.4%)	3 (4.1%)	21 (28.8%)	36 (49.3%)	12 (16.4%)
S46: This hotel encourages the use of locally produced ingredients.	2 (2.7%)	4 (5.5%)	13 (17.8%)	28 (38.4%)	26 (35.6%)
S43: The restaurant operates with energy-efficient appliances.	1 (1.4%)	5 (6.8%)	19 (26.0%)	28 (38.4%)	20 (27.4%)
S45: The staff inform guests about their eco-friendly practices.	1 (1.4%)	2 (2.7%)	18 (24.7%)	32 (43.8%)	20 (27.4%)
S48: The hotel's menu features seasonal items sourced from the local area.	1 (1.4%)	12 (16.4%)	17 (23.3%)	27 (37.0%)	16 (21.9%)

Field Survey, 2025

The descriptive results for Green Service indicate generally positive perceptions among guests regarding the hotel's environmentally friendly practices. Across all six statements, the majority of respondents selected Agree or Strongly Agree, reflecting a strong level of satisfaction with the hotel's green initiatives. For example, more than two-thirds of participants agreed that the restaurant uses environmentally friendly materials (69.9%) and that employees manage food waste sustainably (65.7%). Similarly, a high proportion believed the hotel encourages locally produced ingredients, with 74% expressing agreement. Respondents also held favorable views regarding the use of energy-efficient appliances

(65.8%), staff willingness to explain eco-friendly practices (71.2%), and the inclusion of seasonal local items on the menu (58.9%). Neutral responses ranged from roughly 18% to 28%, while disagreement levels remained very low across all items. Overall, the findings suggest that guests perceive the hotel as actively implementing a variety of green service practices.

Table 7: Perception on Customer Satisfaction

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
C52I am pleased with the meals provided at this hotel.	1 (1.4%)	1 (1.4%)	10 (13.7%)	30 (41.1%)	31 (42.5%)
C51: I am satisfied with the level of service offered here.	1 (1.4%)	3 (4.1%)	9 (12.3%)	29 (39.7%)	31 (42.5%)
C50: I intend to return to this hotel's restaurant in the future.	0	5 (6.8%)	7 (9.6%)	34 (46.6%)	27 (37.0%)
C54: I would recommend this hotel's restaurant to other people.	0	5 (6.8%)	12 (16.4%)	24 (32.9%)	32 (43.8%)
C53: My stay at this hotel lived up to what I expected.	0	5 (6.8%)	15 (20.5%)	23 (31.5%)	30 (41.1%)
C49: I feel that the money I spent at this hotel was worth it.	0	2 (2.7%)	18 (24.7%)	25 (34.2%)	28 (38.4%)

Field Survey, 2025

The results for Customer Satisfaction reveal a highly positive overall guest experience at the hotel. Across all six statements, a large majority of respondents selected Agree or Strongly Agree, indicating strong satisfaction with the meals, service quality, value, and overall stay. Notably, 83.6% of guests agreed or strongly agreed that they were pleased with the meals, and a similar 82.2% expressed satisfaction with the service quality. Guests also showed strong loyalty intentions, with 83.6% planning to revisit the restaurant and 76.7% willing to recommend it to others. Furthermore, 72.6% felt that their stay met their expectations, and 72.6% believed that the money spent was worthwhile. Neutral responses ranged from about 9% to 25%, while disagreement levels remained very low across all items, and no respondents strongly disagreed with most of the statements. Overall, the findings suggest that customers are highly satisfied with their experience at the hotel, indicating strong performance in key service areas.

Relationship between Green Service and Customer Satisfaction

Table 8: Correlations

	Green Service	Green Service	Satisfaction
Kendall's tau_b	Correlation Coefficient	1.000	.334**
	Sig. (2-tailed)	.	.000
	N	73	73

** . Correlation is significant at the 0.01 level (2-tailed).

Field Survey, 2025

The correlation analysis between Green Service and Customer Satisfaction indicates a positive and statistically significant relationship. Using Kendall’s tau-b, the correlation coefficient was found to be 0.334 with a significance level of 0.000, which is below the 0.01 threshold. This suggests that as the hotel’s green service practices improve, customer satisfaction tends to increase correspondingly. In other words, environmentally friendly initiatives such as using sustainable materials, managing food waste properly, and promoting locally sourced ingredients are positively associated with guests’ overall satisfaction, highlighting the importance of green practices in enhancing the customer experience in the hotel industry.

Green Service Impact Customer Satisfaction

Table 9: Regression Analysis

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.378 ^a	.243	.231	.55270		
a. Predictors: (Constant), Green Service						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.608	1	3.608	11.811	.001 ^b
	Residual	21.689	71	.305		
	Total	25.297	72			
a. Dependent Variable: Green Service						
b. Predictors: (Constant), Green Service						
Coefficients ^a						

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.698	.424		6.370	.000
	Green Service	.376	.109	.378	3.437	.001

a. Dependent Variable: Satisfaction

Field Survey, 2025

The regression analysis examines the impact of Green Service on Customer Satisfaction and indicates a significant positive effect. The model summary shows an R value of 0.378 and an R² of 0.243, suggesting that approximately 24.3% of the variance in customer satisfaction can be explained by the hotel's green service practices. The adjusted R² of 0.231 confirms the model's explanatory power while accounting for the sample size.

The ANOVA results show that the regression model is statistically significant ($F = 11.811$, $p = 0.001$), indicating that Green Service reliably predicts Customer Satisfaction.

The coefficients table reveals that Green Service has a positive effect on Customer Satisfaction, with an unstandardized coefficient ($B = 0.376$, $p = 0.001$) and a standardized coefficient (Beta = 0.378). This means that for every one-unit increase in Green Service practices, Customer Satisfaction increases by 0.376 units.

Overall, the results demonstrate that implementing environmentally friendly practices in hotels positively impacts guests' satisfaction, emphasizing the importance of green initiatives in promoting sustainable and customer-focused hospitality.

DISCUSSION

This study revealed green service and customer satisfaction of Nepalese hotel industry in three section as below:

Perceptions of Green Service and Customer Satisfaction

The findings show that guests generally hold positive perceptions of green service practices in the hotel. Most respondents agreed that the hotel uses environmentally friendly materials, manages food waste properly, promotes locally grown ingredients, and incorporates energy-efficient appliances. These results align with Chang et al. (2024), who found that customers in eco-friendly hotels strongly appreciate visible and well-

communicated green initiatives. Similarly, Bakshi and Singh (2024) noted that sustainable dining, energy savings, and responsible waste handling significantly enhance guests' perception of service quality.

Customer satisfaction was also high, with a majority of guests reporting satisfaction with meals, service quality, the value for money, and their overall experience. These findings support Sivesan (2018), who reported that guests tend to be more satisfied when hotels integrate green practices with consistent service performance. Together, the results suggest that guests in Nepalese hotels not only notice green efforts but also translate these observations into positive evaluations of their stay.

Relationship between Green Service and Customer Satisfaction

A significant and positive relationship was found between green service and customer satisfaction (Kendall's $\tau = .334$, $p < .01$). This indicates that higher perceptions of green practices are associated with higher levels of satisfaction. This result corroborates previous research; for instance, Chang et al. (2024) confirmed that green practices and environmental value significantly influence satisfaction and loyalty in eco-friendly hotels. Similarly, Sivesan (2018) reported a stronger positive correlation ($r = .645$) between green marketing activities and customer satisfaction in Sri Lankan hotels.

Although the correlation strength in this study is moderate, it reinforces the idea that green service is an important dimension of service quality. However, consistent with Bakshi and Singh (2024), green practices alone do not dominate guest satisfaction; rather, they complement core service features such as reliability, responsiveness, and comfort.

Impact of Green Service on Customer Satisfaction

Regression results revealed that green service has a significant positive impact on customer satisfaction ($\beta = .378$, $p = .001$). The model explained 24.3% of the variance in satisfaction, showing that green practices meaningfully contribute to customers' overall evaluation, though they are not the sole determinant. This supports findings by Chang et al. (2024), who identified green practices as a strong predictor of perceived value and satisfaction in sustainable hotels. It also aligns with Sivesan (2018), who demonstrated that sustainable initiatives lead to higher customer satisfaction when customers notice and appreciate these efforts.

However, the moderate R^2 value suggests that while green service is influential, other service dimensions such as cleanliness, staff behavior, comfort, and affordability likely play larger roles in shaping satisfaction. This aligns with Bakshi and Singh's (2024) argument that green initiatives enhance satisfaction only when supported by strong fundamental service performance.

CONCLUSION

This study demonstrates that green service practices significantly influence customer satisfaction in the Nepalese hotel industry. Guests positively perceive environmentally friendly initiatives, including sustainable materials, energy-efficient appliances, waste management, and locally sourced ingredients, which enhance their overall experience. The findings reveal a moderate but significant positive relationship between green service and satisfaction, with green practices explaining 24.3% of the variance in customer satisfaction. While green service is not the sole determinant of satisfaction, it acts as an important driver that complements core service quality. Implementing and communicating sustainable practices can therefore promote both guest satisfaction and sustainable hospitality.

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