

Assessing the Impact of Green Practices on Customer Satisfaction in Hotels of the Kashmir Valley, India

Suhail Majid Shah¹, Gauri Rajput², Dr. Ajaz Ahmad Dar^{3*}, Dr. Mo. Maharaj⁴

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Abstract

This study examines the impact of green practices on customer satisfaction in hotels located in the Kashmir Valley, India, with particular emphasis on energy and water conservation, waste management, and eco-friendly initiatives. Primary data were collected from 250 hotel guests using a structured questionnaire. The data were analyzed using reliability analysis, exploratory factor analysis, correlation analysis, regression analysis, and an independent samples t-test to examine the relationship between green practices and customer satisfaction. The findings reveal that green practices have a significant positive impact on customer satisfaction, explaining 24% of the variation in customer satisfaction. Furthermore, no statistically significant difference was found between male and female respondents regarding their perceptions of green practices and customer satisfaction. The study concludes that the adoption of green practices enhances customer satisfaction and contributes to sustainable hotel management in the Kashmir Valley, India. These findings provide practical insights for hotel managers and policymakers seeking to strengthen environmentally responsible practices while improving guest experiences and promoting sustainable tourism development.

Keywords: Green practices; Customer satisfaction; Sustainable hospitality; Environmental sustainability; Hotel industry; Kashmir Valley, India.

¹ KC College of Hotel Management, Punjab, India; Assistant Professor, ORCID:0009-0001-7586-1134

² Indira Gandhi National Open University (IGNOU), New Delhi, India; Research Scholar; ORCID:0009-0002-2350-1986

³ Government Degree College Hadipora, Baramulla, Jammu & Kashmir, India, ORCID:0009-0007-1667-4359

Corresponding author: ajazdar.scholar@bgsbu.ac.in

⁴ Maharishi Markandeswar (Deemed to be University), Mullana, Ambala, HR, India, Associate Professor, ORCID: 0009-0003-9770-7300

Introduction

In recent years, environmental sustainability has emerged as a key concern in the hospitality industry. Hotels worldwide are increasingly adopting green practices to reduce their environmental impact while maintaining quality service for guests (Mbasera et al., 2016; Merli et al., 2019). These practices often include conserving energy and water, managing waste responsibly and using eco-friendly products. Beyond protecting the environment such initiatives shape tourists' perceptions of a hotel's responsibility and commitment to quality, which can significantly influence their satisfaction (Wang, 2012; Robinot & Giannelloni, 2010; Gunduz Songur et al., 2023). As tourists grow more conscious of environmental issues hotels are challenged to align their operations with sustainable practices to meet expectations and remain competitive (Deraman et al., 2017; Khalil et al., 2024).

Customer satisfaction is central to a hotel's success. It is influenced not only by traditional service factors such as comfort and staff behavior but increasingly by a hotel's environmental performance (Sharma & Srivastava, 2018; Sim et al., 2006). Guests often perceive energy-efficient systems, water-saving measures, and eco-friendly amenities as added value, enhancing their overall experience (Salehi et al., 2021; Han & Hyun, 2018). Hotels that successfully implement these practices can differentiate themselves in the market, foster customer loyalty, and improve operational efficiency (Bohdanowicz et al., 2001; Teng et al., 2012; Ali & Anjum, 2024).

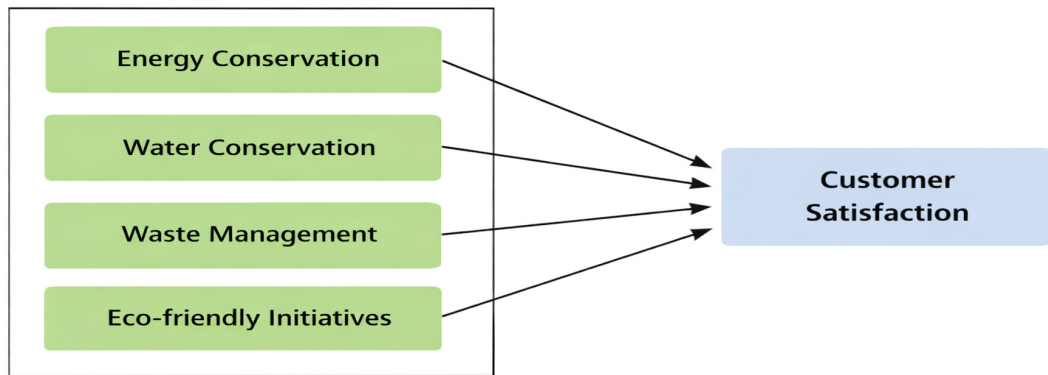
The Kashmir Valley, located in the Union Territory of Jammu and Kashmir in northern India, is a Himalayan region renowned for its snow-capped mountains, lakes, gardens, rich cultural heritage, and tourism potential. Over the past decade, it has experienced rapid growth in tourism, attracting both domestic and international visitors. This growth has placed significant pressure on local ecosystems and resources, making sustainable hospitality practices increasingly important (Aslam et al., 2018; Jeelani & Shah, 2024). Hotels in the region are slowly integrating green practices to reduce environmental impacts while maintaining high-quality guest services (Dar et al., 2024; Parray et al., 2023). Despite these efforts, there is limited research on how such practices influence customer satisfaction in the Valley's hotels (Malik & Bhat, 2015; Wani et al., 2021). Understanding this relationship is crucial for both improving guest experiences and supporting environmentally responsible tourism.

Research indicates that green practices have a positive effect on guest satisfaction and loyalty. Measures such as energy and water conservation, proper waste management, and eco-friendly amenities are associated with higher levels of guest satisfaction and repeated visits (Han et al., 2010; Omidiani & HashemiHezaveh, 2016). Demographic factors, such as gender can also influence how guests respond to sustainable initiatives with women often showing greater sensitivity toward environmentally friendly practices (Moise et al., 2021; Casado-Díaz et al., 2023). Technological innovations have further supported eco-friendly operations, improving both efficiency and the overall guest experience (Mandal et al., 2025; Rehman et al., 2023).

Although green hotel practices have been widely studied globally the Kashmir Valley presents a unique context due to its ecological sensitivity and cultural significance. Examining how sustainable initiatives impact customer satisfaction in this region can provide valuable insights for hoteliers and policymakers (Dar et al., 2014; Majeed et al., 2026; Lagun, 2023). Such knowledge can guide the development of strategies that balance high-quality guest experiences with environmentally responsible operations, ultimately promoting sustainable tourism development in the Valley (Dar et al., 2024; Parray et al., 2023; Jeelani & Shah, 2024).

In essence, this study aims to explore the impact of green practices on customer satisfaction in hotels of the Kashmir Valley. By focusing on energy and water conservation, waste management, and eco-friendly initiatives, the research seeks to provide actionable insights for hotel managers and stakeholders, highlighting ways to enhance guest satisfaction while fostering environmentally responsible hospitality practices.

The present study investigates how green practices implemented by hotels shape customer satisfaction.



Source: Developed by the author based on Theory of Planned Behavior (TPB), Social Exchange Theory (SET), and Stakeholder Theory.

Figure 1

As the hospitality industry faces growing environmental challenges, hotels are increasingly adopting sustainable practices such as energy and water conservation, waste management, and the use of eco-friendly products (Bohdanowicz et al., 2001; Ayoub et al., 2014; Han et al., 2018). These practices not only reduce the ecological footprint of hotels but also influence guests' perceptions of service quality and organizational responsibility (Talukder, 2025; Lagun, 2023). The study is grounded in the Theory of Planned Behavior (TPB), which posits that individuals' attitudes and perceptions guide their intentions and behaviors (Ulker-Demirel & Ciftci, 2020; Han et al., 2010). In the context of hotels, when guests observe environmentally responsible initiatives, such as energy-efficient systems or water-saving measures, they are likely to form positive evaluations that enhance their satisfaction (Meng et al., 2022; Yeh et al., 2021). Social Exchange Theory (SET) further explains how guests assess experiences based on perceived benefits (Nunkoo, 2016; Ward & Berno, 2011). Environmentally sustainable practices provide additional value by offering a healthier and more responsible environment. Guests who perceive these benefits are more likely to report satisfaction and a favorable attitude toward the hotel (Özel & Kozak, 2017; Rasoolimanesh et al., 2015).

Finally, the Stakeholder Theory highlights the importance of responding to the expectations of key stakeholders, including customers (Farmaki, 2019; Barakat & Wada, 2021). Hotels that implement green practices demonstrate commitment to stakeholder interests, enhancing trust and positive perceptions among guests (Lo, 2013; Teng et al., 2015; Farmaki & Farmakis, 2018). Drawing on these theories, the conceptual framework emphasizes that green practices comprising energy conservation, water management waste reduction and eco-friendly initiatives serve as key drivers of customer satisfaction. By aligning environmental responsibility with guest expectations, hotels can strengthen positive perceptions loyalty and overall satisfaction (Céspedes-Lorente et al., 2003; Ghosh & Jhamb, 2022).

Research Objectives

1. To identify the key dimensions of green practices adopted by hotels.
2. To examine the relationship between green practices and customer satisfaction in hotels.
3. To determine the impact of green practices on customer satisfaction.

Hypotheses

H1: Green practices implemented by hotels have a significant relationship with customer satisfaction.

H2: Green practices have a significant positive impact on customer satisfaction.

H3: Green practices and customer satisfaction significantly vary across gender.

Literature Review

Sustainability has become an essential focus for hotels around the world, as they increasingly adopt measures like eco-friendly sourcing, energy reduction, and waste minimization (Al-Aomar & Hussain, 2017; Xess et al., 2021). Advancements in technology, such as smart energy systems and digital monitoring of resource consumption, have made it easier for hotels to operate efficiently without compromising service quality (Li et al., 2020). Research suggests that hotels embracing proactive environmental strategies not only improve their operational efficiency but also enhance their brand image and reputation among guests (Rao & Sahu, 2013; Costa et al., 2004; Santamouris et al., 1996). Talukder (2025) and Lagun (2023) further argue that these practices foster a culture of environmental responsibility, reducing costs and supporting long-term sustainability.

While traditional service factors such as staff behavior, cleanliness and comfort continue to shape guest satisfaction, sustainable practices are becoming increasingly important. Hotels that incorporate environmentally responsible initiatives tend to enhance overall guest experience and loyalty (Mihalič, 2000; Patterson et al., 2008). Adaptive management strategies where hotels proactively adjust their operations to meet environmental standards—have been shown to positively affect guest perceptions (Jeelani & Shah, 2024; Majeed et al., 2026). Demographic characteristics such as gender can also influence how guests respond to sustainability initiatives with women generally showing higher awareness and sensitivity toward eco-friendly practices (Aslam et al., 2018; Casado-Díaz et al., 2023). In this way green practices are not just operational decisions but also a tool to enrich guests' experiences and strengthen loyalty.

Energy and water conservation remain key pillars of sustainable hotel management. The adoption of energy efficient lighting, HVAC retrofits, and water-saving fixtures has been proven to reduce environmental impact while enhancing operational efficiency (Santamouris et al., 1996; Dinarès & Saurí, 2015; Pirani & Arafat, 2014). Hotels that actively monitor resource use and implement adaptive strategies not only demonstrate environmental responsibility but also positively influence guest satisfaction (Mensah, 2020; Salehi et al., 2021). In regions like the Kashmir Valley where water scarcity is a pressing concern, measures such as linen reuse and low-flow installations benefit both the environment and the guest experience (Dinarès & Saurí, 2015; Pirani & Arafat, 2014).

Hotels' approach to waste management including segregation, recycling, and responsible disposal plays a significant role in shaping guests' perceptions of sustainability (Omidiani & Hashemi Hezaveh, 2016; Pirani & Arafat, 2014; Mensah, 2020). Guests tend to view hotels with structured waste management practices as more socially responsible, which enhances satisfaction and loyalty (Menget al., 2021; Coul-

son et al., 2014). Moreover, sustainable waste practices reinforce the hotel's commitment to environmental stewardship, influencing eco-conscious tourists evaluation of service quality (Ghosh & Jhamb, 2022; Farmaki, 2019).

The Kashmir Valley, with its fragile ecosystems and rich cultural heritage, faces unique challenges due to rapid tourism growth. Hotels in the region are gradually adopting sustainable practices, such as energy and water conservation and waste management, to mitigate the environmental pressures caused by tourism (Aslam et al., 2018; Malik & Bhat, 2015; Wani et al., 2021; Parray et al., 2023). However, there is limited research exploring how these practices influence guest satisfaction in the Valley's hotels leaving a gap in understanding the region-specific impacts (Dar et al., 2014; Jeelani & Shah, 2024; Majeed et al., 2026). Insights into this relationship are crucial for guiding hotels to balance high quality guest experiences with environmentally responsible operations.

Although global studies have shown a positive link between green practices and guest satisfaction, the Kashmir Valley remains underexplored. Empirical research on local adaptations of sustainability initiatives, demographic influences, and the role of technology is sparse (Dar et al., 2014; Jeelani & Shah, 2024; Majeed et al., 2026). Addressing these gaps will help hotels develop strategies that improve guest satisfaction while ensuring ecological sustainability.

Methods and Data

This study adopted a quantitative approach to examine how green practices in hotels affect customer satisfaction in the Kashmir Valley. A descriptive and correlational design was used to explore the relationships between sustainable initiatives and guest experiences.

Population and Sample

The study focused on hotel guests in the Kashmir Valley who had direct experience with eco-friendly services. Using purposive sampling 250 respondents were selected to ensure that participants were knowledgeable about the hotel's green practices, providing relevant insights into their perceptions and satisfaction levels.

Data Collection

The required data were collected through a structured survey questionnaire consisting of items related to energy conservation, water-saving practices, waste management, eco-friendly initiatives, and overall customer satisfaction. The questionnaire was prepared by adapting measures from earlier validated studies on green hotel practices and customer satisfaction, with necessary contextual changes made for the Kashmir Valley setting (Han et al., 2010; Salehi et al., 2021; Wang, 2012). A five-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree," was used to record respondents' opinions. Data collection took place between December 2025 and February 2026.

Data Analysis

The responses were analyzed using IBM SPSS version 27. The reliability of the scale was checked using Cronbach's alpha, while sampling adequacy was confirmed through the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's Test of Sphericity. Exploratory factor analysis (EFA) was used to identify the main dimensions of green practices and satisfaction. Pearson correlation and regression analyses examined the relationships between variables, and independent samples t-tests were conducted to explore gender differences.

Ethical Considerations

Participation was voluntary, and respondents were assured of complete confidentiality and anonymity. Informed consent was obtained before the survey was administered.

Methods and Data

Table 1. *Demographic Profile of Respondents (N= 250)*

Variables	Category	Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	125	50.0	50.0	50.0
	Female	125	50.0	50.0	100.0
Age	Below 25	50	20.0	20.0	20.0
	26–35	50	20.0	20.0	40.0
	36–45	50	20.0	20.0	60.0
	46–55	50	20.0	20.0	80.0
	Above 55	50	20.0	20.0	100.0
Education	High School	60	24.0	24.0	24.0
	Undergraduate	80	32.0	32.0	56.0
	Postgraduate	80	32.0	32.0	88.0
	Other	30	12.0	12.0	100.0
Tourist Type	Domestic	175	70.0	70.0	70.0
	International	75	30.0	30.0	100.0
Purpose of Visit	Leisure	150	60.0	60.0	60.0
	Business	60	24.0	24.0	84.0
	Other	40	16.0	16.0	100.0

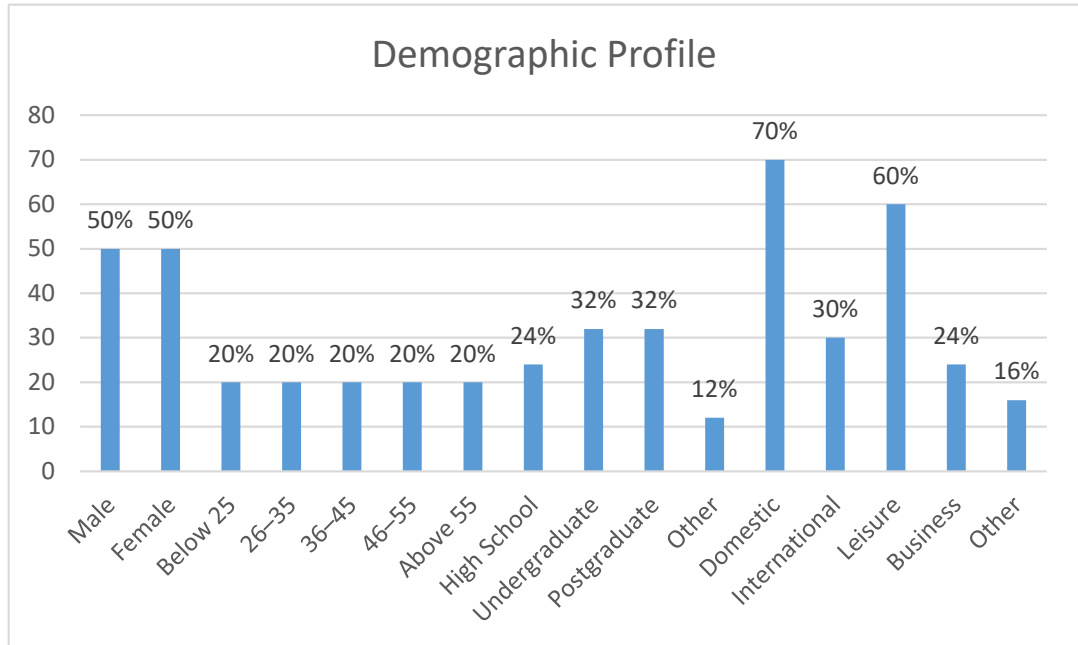


Figure 2

Table 1 shows the demographic characteristics of the respondents included in the study (N = 250). Regarding gender, the sample is evenly distributed between males and females. Out of the total respondents, 125 (50%) are male and 125 (50%) are female, indicating a balanced representation of both genders in the study. In terms of age, the respondents are equally distributed across all age groups. Each age category below 25, 26–35, 36–45, 46–55, and above 55 includes 50 respondents, representing 20% of the total sample in each group. This balanced distribution suggests that the study captures the views of individuals from a wide range of age groups.

Looking at educational background, the results indicate that a large proportion of respondents are relatively well educated. Both undergraduate and postgraduate degree holders represent the highest share, with 80 respondents each (32%). In addition, 60 respondents (24%) have completed high school education, while 30 respondents (12%) fall under the 'other' category of education. With respect to tourist type, the majority of the respondents are domestic tourists. Specifically, 175 respondents (70%) belong to the domestic category, while 75 respondents (30%) are international tourists. This indicates that domestic tourists form the dominant group in the sample. Finally, when considering the purpose of visit, most respondents reported leisure as their main reason for travelling. A total of 150 respondents (60%) visited for leisure purposes, followed by 60 respondents (24%) who travelled for business purposes, and 40 respondents (16%) who indicated other purposes of visit.

Table 2. *Reliability Analysis*

Case Processing Summary		
		N
Cases	Valid	250
	Excluded ^a	0
	Total	250
Reliability Statistics		
Cronbach's Alpha		N of Items
.902		25

Table 2 shows the results of the reliability analysis conducted to assess the internal consistency of the measurement scale. The findings indicate a Cronbach's alpha value of 0.902 for the 25 items which reflects a very high level of reliability. All 250 responses were valid, with no cases excluded from the analysis. Since the alpha value is well above the acceptable threshold of 0.70, the scale used in the study is considered highly reliable and suitable for further analysis.

Table 3. *KMO and Bartlett's Test*

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.895
Bartlett's Test of Sphericity	Approx. Chi-Square	2748.306
	Df	300
	Sig.	.000

Table 3 presents the results of the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's Test of Sphericity to evaluate whether the data is suitable for exploratory factor analysis. The KMO value of 0.895 indicates a very good level of sampling adequacy, suggesting that the sample is appropriate for further analysis. In addition, Bartlett's Test of Sphericity is statistically significant ($\chi^2 = 2748.306$, $df = 300$, $p < 0.001$), which shows that the variables are sufficiently correlated with each other. These results indicate that the dataset is suitable for conducting exploratory factor analysis.

Table 4. *Total variance explained (Green Practices and Customer Satisfaction)*

Factors / Items	Factor Loading	Eigenvalue	% of Variance	Cumulative %
Factor 1: Energy Conservation Practices		7.463	29.85	29.85
EC1	0.789			
EC2	0.801			
EC3	0.786			

EC4	0.768			
EC5	0.706			
Factor 2: Water Conservation Practices		2.503	10.01	39.87
WC1	0.794			
WC2	0.743			
WC3	0.774			
WC4	0.774			
WC5	0.746			
Factor 3: Customer Satisfaction		2.138	8.55	48.42
CS1	0.697			
CS2	0.771			
CS3	0.739			
CS4	0.769			
CS5	0.792			
Factor 4: Eco-friendly Products and Environmental Initiatives		1.865	7.46	55.88
EF1	0.773			
EF2	0.720			
EF3	0.739			
EF4	0.726			
EF5	0.691			
Factor 5: Waste Management Practices		1.815	7.26	63.14
WM1	0.730			
WM2	0.729			
WM3	0.725			
WM4	0.739			
WM5	0.717			
Total Variance extracted %	63.14			

Table 4 presents the results of the exploratory factor analysis conducted to examine the underlying dimensions of green practices and customer satisfaction. The analysis identified five factors with eigenvalues greater than 1, which together explain 63.14% of the total variance indicating an acceptable level of variance explained. The first factor, Energy Conservation Practices, explains 29.85% of the variance with factor loadings ranging from 0.706 to 0.801 suggesting a strong representation of energy-saving measures. The second factor, Water Conservation Practices, accounts for 10.01% of the variance with loadings between 0.743 and 0.794. Customer Satisfaction emerged as the third factor, explaining 8.55% of the variance while Eco-friendly Products and Environmental Initiatives and Waste Management Practices explain 7.46% and 7.26% of the variance respectively. Overall, the factor loadings exceed the

recommended threshold of 0.50 confirming that the items adequately represent their respective constructs and supporting the validity of the measurement structure used in this study.

Table 5. *Descriptive Statistics*

Energy Conservation Practices	N	Mean	Standard Deviation
The hotel uses energy-efficient lighting such as LED bulbs.	250	3.02	0.961
The hotel uses energy-saving appliances and equipment.	250	2.93	0.981
The hotel encourages guests to switch off lights and electrical devices when not in use.	250	2.96	0.985
The hotel takes measures to reduce overall energy consumption.	250	2.90	0.915
I notice that the hotel actively promotes energy conservation practices.	250	2.97	0.946

Table 5 presents the descriptive statistics for respondents' perceptions of energy conservation practices in the surveyed hotels. The mean scores ranged from 2.90 to 3.02, with standard deviations between 0.915 and 0.985, indicating a relatively consistent pattern of responses. The findings suggest that respondents generally acknowledged the presence of energy conservation practices in the surveyed hotels, although the level of agreement varied slightly across the measured aspects. The highest mean score was observed for the use of energy-efficient lighting ($M = 3.02$, $SD = 0.961$), whereas the lowest mean score was recorded for measures aimed at reducing overall energy consumption ($M = 2.90$, $SD = 0.915$). Overall, the narrow range of mean scores indicates that respondents held broadly similar perceptions regarding the implementation of energy conservation practices, reflecting a relatively uniform evaluation of these initiatives across the surveyed hotels.

Table 6. *Descriptive Statistics for Water Conservation Practices (N = 250)*

Water Conservation Practices	N	Mean	Standard Deviation
1. The hotel uses water-saving fixtures such as low-flow taps and showers.	250	3.02	1.006
2. The hotel encourages guests to reuse towels and linens to save water.	250	2.99	0.963
3. The hotel implements practices to minimize water wastage.	250	2.98	1.008
4. The hotel maintains systems that help conserve water resources.	250	3.04	0.979
5. I believe the hotel takes water conservation seriously.	250	3.07	0.961

Table 6 shows the descriptive statistics for respondents' perceptions of water conservation practices adopted by the surveyed hotels. The mean scores ranged from 2.98 to 3.07, while the standard deviations ranged from 0.961 to 1.008, indicating relatively consistent responses across all items. The highest mean score was obtained for the statement "*I believe the hotel takes water conservation seriously*" ($M = 3.07$, $SD = 0.961$), followed by the maintenance of systems that help conserve water resources ($M = 3.04$, $SD = 0.979$). In contrast, the implementation of practices to minimize water wastage recorded the lowest mean score ($M = 2.98$, $SD = 1.008$). Overall, the findings suggest that respondents perceived water conservation practices in the surveyed hotels in a fairly consistent manner, with only slight variations observed across the different aspects of water conservation.

Table 7. Descriptive Statistics for Waste Management Practices (N = 250)

Waste Management Practices	N	Mean	Standard Deviation
1. The hotel provides facilities for proper waste segregation.	250	2.92	0.924
2. The hotel follows recycling practices for waste materials.	250	2.95	0.982
3. The hotel minimizes the use of disposable or single-use products.	250	2.98	0.931
4. The hotel follows environmentally responsible waste disposal methods.	250	2.94	0.905
5. I observe that the hotel manages waste in an environmentally friendly manner.	250	2.89	0.850

Table 7 indicates that respondents reported relatively similar perceptions regarding waste management practices in the surveyed hotels. The mean scores ranged from 2.89 to 2.98, while the standard deviations varied between 0.850 and 0.982, indicating limited variation in responses. The highest mean score was obtained for the statement “The hotel minimizes the use of disposable or single-use products” ($M = 2.98$, $SD = 0.931$), whereas the lowest mean score was recorded for “I observe that the hotel manages waste in an environmentally friendly manner” ($M = 2.89$, $SD = 0.850$). The remaining statements also received closely comparable mean scores, suggesting that respondents expressed similar views regarding waste segregation, recycling practices, and environmentally responsible waste disposal methods. The narrow range of mean scores reflects a consistent pattern of responses across the different dimensions of waste management practices evaluated in this study.

Table 8. Descriptive Statistics for Eco-friendly Products and Environmental Initiatives

Eco-friendly Products and Environmental Initiatives	N	Mean	Standard Deviation
1. The hotel uses eco-friendly and biodegradable products.	250	2.98	.990
2. The hotel encourages guests to follow environmentally friendly practices.	250	2.96	.962
3. The hotel provides information about its environmental initiatives.	250	2.95	.926
4. The hotel supports environmentally responsible tourism practices.	250	2.88	.947
5. I believe the hotel is committed to protecting the natural environment.	250	3.01	.920

Table 8 presents the descriptive statistics for the Eco-friendly Products and Environmental Initiatives dimension. The mean scores range from 2.88 to 3.01, indicating that respondents generally expressed moderate agreement with the statements related to environmentally friendly practices adopted by hotels. Among the five statements, “I believe the hotel is committed to protecting the natural environment” received the highest mean score ($M = 3.01$, $SD = 0.920$), suggesting that guests generally perceive hotels as making an effort to protect the environment. This was closely followed by the statement, “The hotel uses eco-friendly and biodegradable products” ($M = 2.98$, $SD = 0.990$), reflecting a moderately positive perception of the use of sustainable products. Respondents also moderately agreed that hotels encourage environmentally friendly behaviour among guests ($M = 2.96$, $SD = 0.962$) and provide information about their environmental initiatives ($M = 2.95$, $SD = 0.926$). The statement, “The hotel supports environmentally responsible tourism practices,” recorded the lowest mean score ($M = 2.88$, $SD = 0.947$), indicating that this aspect was perceived less positively than the others. Overall, the relatively similar mean scores and standard deviation values suggest consistent responses among participants, indicating that while guests acknowledge hotels’ environmental efforts, there is still room to further strengthen and communicate sustainability initiatives.

Table 9. *Descriptive Statistics for Customer Satisfaction*

Customer Satisfaction	N	Mean	Standard Deviation
1. I am satisfied with my overall experience at this hotel.	250	3.09	.986
2. The services provided by the hotel meet my expectations.	250	3.08	.980
3. The hotel provides a pleasant and comfortable stay.	250	3.04	.952
4. I would choose this hotel again in the future.	250	3.01	.988
5. I would recommend this hotel to others.	250	2.99	.944

Table 9 shows the descriptive statistics for the Customer Satisfaction dimension. The mean scores range from 2.99 to 3.09, indicating that respondents were generally satisfied with their stay at the hotels. The highest mean score was recorded for the statement, “I am satisfied with my overall experience at this hotel” ($M = 3.09$, $SD = 0.986$), suggesting that guests had a favourable overall impression of their visit. This was followed by the statement, “The services provided by the hotel meet my expectations” ($M = 3.08$, $SD = 0.980$), reflecting a generally positive evaluation of the services received. Respondents also agreed that the hotel provided a pleasant and comfortable stay ($M = 3.04$, $SD = 0.952$). Comparatively lower mean scores were observed for the statements, “I would choose this hotel again in the future” ($M = 3.01$, $SD = 0.988$) and “I would recommend this hotel to others” ($M = 2.99$, $SD = 0.944$), indicating that although guests were reasonably satisfied with their experience, their intentions to revisit or recommend the hotel were slightly less strong. Overall, the relatively similar mean scores and standard deviation values suggest consistent responses among participants and reflect a moderate level of customer satisfaction across the surveyed hotels.

Table 10. *Correlation*

Variables	1	2	3	4	5
Energy Conservation Practices	1				
Water Conservation Practices	.310**	1			
Waste Management Practices	.308**	.358**	1		
Eco-friendly Products and Environmental Initiatives	.400**	.367**	.372**	1	
Customer Satisfaction	.396**	.260**	.347**	.369**	1

Table 10 shows the results of the Pearson correlation analysis examining the relationship between green practices implemented by hotels and customer satisfaction. The findings indicate that all variables are positively and significantly related at the 0.01 level. Energy conservation practices show a moderate positive relationship with customer satisfaction ($r = 0.396$, $p < 0.01$). Eco-friendly products and environmental initiatives ($r = 0.369$, $p < 0.01$) and waste management practices ($r = 0.347$, $p < 0.01$) are also positively associated with customer satisfaction. Water conservation practices demonstrate a weaker but still significant relationship with customer satisfaction ($r = 0.260$, $p < 0.01$). Overall, the results suggest that the greater the implementation of green practices in hotels the higher the level of customer satisfaction. Therefore, the hypothesis H1 stating that green practices implemented by hotels have a significant relationship with customer satisfaction is accepted.

Table 11. *T-test for Gender Differences in Green Practices and Customer Satisfaction*

Variable	Male Mean (SD)	Female Mean (SD)	t	df	p-value
Customer Satisfaction	15.57 (4.06)	14.86 (3.59)	1.453	248	0.148
Energy Conservation Practices	14.87 (3.90)	14.70 (3.89)	0.341	248	0.733
Water Conservation Practices	15.42 (4.09)	14.77 (3.74)	1.324	248	0.187
Waste Management Practices	14.72 (3.58)	14.65 (3.46)	0.162	248	0.872
Eco-friendly Products & Environmental Initiatives	15.06 (3.51)	14.48 (3.84)	1.255	248	0.211

Table 11 presents the results of the independent samples t-test conducted to examine whether green practices and customer satisfaction vary across gender. The results indicate that male respondents reported slightly higher mean scores than female respondents for customer satisfaction as well as for all dimensions of green practices. However, the differences are not statistically significant, as the p-values for customer satisfaction ($p = 0.148$) energy conservation practices ($p = 0.733$) water conservation practices ($p = 0.187$) waste management practices ($p = 0.872$) and eco-friendly products and environmental initiatives ($p = 0.211$) are all greater than the threshold value of 0.05. Thus, the results indicate that there is no significant variation in green practices and customer satisfaction across gender. Therefore, the hypothesis H3 stating that green practices and customer satisfaction significantly vary across gender is rejected.

Table 12. *Regression Analysis*

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.494 ^a	.244	.231	3.36598	
ANOVA ^a					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	894.531	4	223.633	19.738	.000 ^b
Residual	2775.805	245	11.330		
Total	3670.336	249			
Dependent Variable: CS					
Predictors: EC, WC, WM, EF					

Table 12 presents the results of the regression analysis examining the impact of green practices Energy Conservation (EC), Water Conservation (WC), Waste Management (WM), and Eco-friendly Products and Environmental Initiatives (EF) on customer satisfaction in hotels. The results indicate that these green practices together explain about 24% of the variation in customer satisfaction ($R^2 = 0.244$, Adjusted $R^2 = 0.231$). This suggests that while green initiatives play an important role in influencing customer satisfaction, other factors also contribute to guests' overall experience. The ANOVA results further show that the regression model is statistically significant ($F = 19.738$ $p < 0.001$) indicating that the combined effect of these green practices significantly influences customer satisfaction. In other words envi-

ronmentally responsible initiatives such as saving energy conserving water, managing waste effectively and providing eco-friendly products contribute to enhancing the satisfaction of hotel guests. Therefore, the hypothesis H2 stating that green practices have a significant positive impact on customer satisfaction is accepted.

Discussion

This study highlights that green practices play a significant role in shaping customer satisfaction in hotels of the Kashmir Valley. Measures such as energy conservation, water management, waste management, and the use of eco-friendly products were all positively linked to guest satisfaction, with energy-saving initiatives showing the strongest influence (Bohdanowicz et al., 2001; Salehi et al., 2021). These results suggest that when hotels visibly invest in sustainability, guests perceive higher service quality and a stronger commitment to responsibility. The regression analysis showed that green practices collectively account for 24% of the variation in customer satisfaction, indicating that sustainability is an important driver alongside traditional service factors like comfort, staff behavior, and amenities (Han & Hyun, 2018; Ali & Anjum, 2024). Gender differences were not significant, suggesting that both male and female guests appreciate eco-friendly initiatives in similar ways (Casado-Díaz et al., 2023). These findings align with the idea that guests who notice and value environmentally responsible actions are likely to form more positive evaluations of the hotel (Robinot & Giannelloni, 2010; Meng et al., 2022). In a sensitive region like the Kashmir Valley, implementing such sustainable measures is not only beneficial for the environment but also enhances the overall guest experience (Dar et al., 2024; Parray et al., 2023). From a practical standpoint hotels can gain a competitive edge by focusing on visible, high-impact green initiatives like energy efficient lighting water saving fixtures proper waste segregation and eco-friendly amenities and actively communicating these efforts to guests. Doing so can strengthen perceptions of quality foster loyalty and contribute to sustainable tourism development. Future studies could explore how green practices interact with traditional service elements or investigate differences between domestic and international tourists (Wani et al., 2021; Jeelani & Shah, 2024).

In essence this study confirms that green practices are a key factor in enhancing customer satisfaction in the Kashmir Valley. Hotels that strategically implement sustainability measures can simultaneously improve guest experiences and support environmentally responsible tourism.

Conclusion

This study examined the influence of green practices on customer satisfaction in hotels across the Kashmir Valley, with particular emphasis on energy conservation, water conservation, waste management, and eco-friendly products and environmental initiatives. The findings demonstrate that the adoption of sustainable practices enhances customer satisfaction, with energy conservation practices and eco-friendly initiatives emerging as the strongest contributors. These results highlight that environmental sustainability has become an important aspect of guests' overall hotel experience.

The study also evaluated the proposed hypotheses. H1, which proposed a significant relationship between green practices and customer satisfaction, was supported, as all dimensions of green practices showed significant positive correlations with customer satisfaction. H2, which proposed significant gender differences in green practices and customer satisfaction, was rejected, since no statistically significant differences were found between male and female respondents. H3, which proposed that green

practices have a significant positive impact on customer satisfaction, was supported, with the regression analysis confirming that green practices significantly predict customer satisfaction and explain 24.4% of its variance.

Overall, the findings suggest that integrating sustainable practices into hotel operations not only contributes to environmental conservation but also enhances guests' satisfaction and strengthens the competitiveness of hotels. For destinations such as the Kashmir Valley, where tourism is closely linked to the natural environment, adopting green practices can support both sustainable tourism development and long-term business success.

Although green practices significantly influence customer satisfaction, they represent only one aspect of the overall guest experience. Future research may examine additional factors, such as service quality, hotel image, staff behaviour, perceived value, and customer trust, while extending the study to other tourism destinations and larger samples to improve the generalisability of the findings.

Suggestions and Recommendations

The findings of this study highlight the positive impact of green practices on customer satisfaction in hotels. To further strengthen sustainability efforts and enhance guest experiences the following recommendations are proposed:

Strengthen Implementation of Green Practices: Hotels should prioritize energy saving technologies water conservation measures and the use of eco-friendly products. Visible efforts such as clear signage and guest participation initiatives can reinforce positive perceptions.

Employee Engagement and Training: Staff should be trained to actively promote sustainable practices and assist guests in adopting eco-friendly behaviors ensuring consistent and effective implementation.

Guest Awareness and Participation: Hoteliers can create simple awareness campaigns encouraging guests to participate in green initiatives such as reusing towels and minimizing waste, which enhances both environmental impact and guest satisfaction.

Supportive Policies and Incentives – Tourism authorities and local policymakers can encourage environmentally responsible operations by offering incentives or recognition to hotels that successfully implement sustainable practices fostering a culture of eco-friendly hospitality in the Kashmir Valley.

These recommendations aim to balance high-quality guest experiences with environmental responsibility contributing to sustainable tourism development in the region.

Limitations and Future Research

This study is limited to tourists in the Kashmir Valley so the findings may not apply to other regions. Data were self-reported which may introduce bias and the cross sectional design captures perceptions at one point in time. Future research could use longitudinal or comparative studies, include qualitative insights from hotel managers and tourists and explore the economic impact of green practices on hotel performance.

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