

Intention to Re-visit Sustainable Hotels: A Protection Motivation Perspective

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Abstract

The past few years have witnessed an increased interest among travelers in the Sustainable Hotel (SH) concept. However, re-visit intentions (RI) remain low. A tourist may not always opt for a sustainable accommodation over a traditional one. Given the resource-intensive nature of the hotel industry, making SHs a success is an urgent need. Accordingly, the study utilizes the Protection Motivation Theory (PMT), along with the cognitive construct Low-carbon Knowledge, to examine factors that determine RI towards SHs. Primary data were collected from 308 Indian travelers, and Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to test the model. Results revealed a significant impact of Low-carbon Knowledge, Self-efficacy, Response Efficacy, and Response Cost on RI. Further, Self-efficacy partially mediated between Response Efficacy and RI. The study offers insights for marketers, SH managers, and policymakers to better comprehend decision-making for SHs and enhance RI. This would contribute towards the achievement of India's Viksit Bharat Vision as well as the Sustainable Development Goals.

Keywords: Sustainable Hotel, Green Hotel, PLS-SEM, Protection Motivation Theory, Re-visit Intention, Sustainable Development

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1. Introduction

The hotel and tourism industry is a significant revenue generator for all nations worldwide (Dang-Van et al., 2023). It also makes a notable contribution to employment generation.

However, while the sector is expanding and booming, it is also extremely resource intensive, which has led to an increase in sustainability concerns. In recent years, Sustainable Hotels (SHs) have proliferated. These establishments focus on minimizing their carbon footprint, optimizing resource consumption, and possess eco-labels and certifications from recognized institutions. SHs comply with Environmental, Social, and Governance norms and accordingly organize sustainability awareness programs, along with supporting local entrepreneurs.

1.1.SHs in India

The hospitality and tourism sector plays a pivotal role in India's economic growth and GDP, making a contribution of 6.5% in 2023 (Government of India, 2024). With green consumption and lifestyles becoming the norm, SHs are increasingly in demand (Ray et al., 2024). Statista (2023) observed that 65% of affluent Indians had favorable attitudes toward the paying the premium rates charged by SHs. While the SH concept has gained prominence, an 'attitude-inclination-behavior' gap persists and needs attention (Kini et al., *in press*). Moreover, a large number of green hotels have now mushroomed in the country. Given the complexity associated with human decision-making, it is essential for hotel managers to develop an in-depth understanding of the factors determining re-visit intentions (RI) for SHs. It would foster uptake of SHs, contributing towards India's Viksit Bharat 2047 Vision. In addition, scarcely few studies in the past have focused on RI in an emerging country context (Sreen et al., 2024).

The current study utilizes the Protection Motivation Theory (PMT), along with the cognitive construct Low-carbon Knowledge (LCK), to identify antecedents to RI towards SHs. PMT model propounds the effect of 'fear-based' factors (emotional in nature) to motivate sustainable intentions. Simultaneously, LCK represents the rational dimension of behavior, and its role in opting for an SH over a traditional (non-sustainable) one.

2. Literature Review

Extant literature has registered an increasing number of studies focusing on drivers toward SH visit inclinations. Past articles have largely utilized the Theory of Planned Behavior, Consumption Values Theory, and Value-Belief-Norm model. While these account for a

significant number of constructs, there is a dearth of research that examines the impact of risk-related factors in this regard.

This paper is grounded in the Protection Motivation Theory (PMT) (Rogers, 1983), which analyses an individual's response to perceived threats. In the context of SHs, the current study uses PMT to explain how a traveler would respond to environmental crises caused due to the unsustainable practices of hotel operations. The model is further extended by incorporating Low-carbon Knowledge (LCK) and seeks to identify the predictors of re-visitation (RI). RI is considered as a measure of the extent to which a traveler would consistently choose an SH, rather than a conventional hotel. The proposed model is presented in **Figure 1**.

2.1.LCK

LCK is an individual's awareness and understanding of the concepts of global warming and carbon emissions. It also encompasses knowledge of green architecture and green energy. A traveler who scores high on LCK would surely be appreciative of the sustainable efforts and programs employed by SHs, and thus be motivated to re-visit. This leads to the hypothesis,

H1: Low-carbon knowledge has a positive influence on RI for SHs.

2.2.Self-efficacy (SE)

SE is defined as a traveler's confidence in his ability to make a decision regarding booking an SH. It comprises the belief that an individual is knowledgeable about SHs, can evaluate their pros and cons, and accordingly decide. Such a traveler would feel capable of advancing environmental sustainability by staying at an SH.

H2: Self-efficacy has a positive influence on RI for SHs.

2.3.Response Efficacy (RE)

RE is the conviction that SHs significantly contribute toward environmental cleanliness and preservation. It also includes the notion that by staying at SHs, an individual can motivate others to do the same. Thus, a traveler who is confident that SHs prevent the overuse of resources and help conserve the ecology would be driven to re-visit such an establishment.

H3: Response efficacy has a positive influence on RI for SHs.

Additionally, individuals with strong RE would believe SHs to be highly impactful and be stimulated to visit an SH. As a result, they may now perceive themselves as more capable of making this decision and support this environmental initiative. Accordingly, it is postulated,

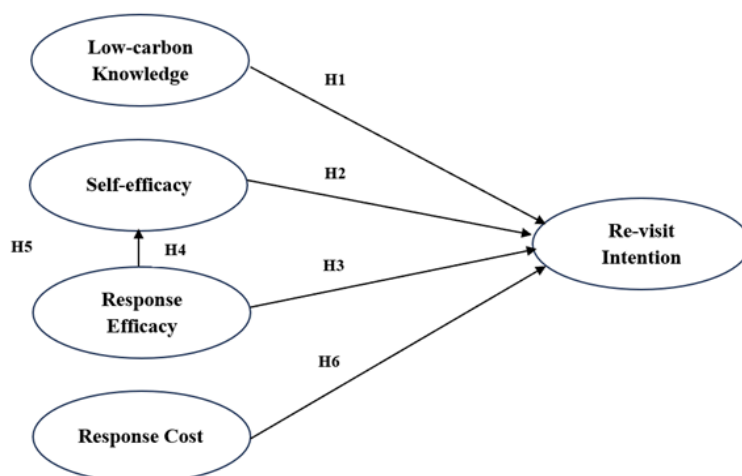
H4: Response efficacy has a positive influence on self-efficacy.

H5: Self-efficacy mediates the relationship between response efficacy and RI for SHs.

2.4. Response cost (RC)

RC is the expense associated with a stay at an SH. It comprises of the belief that these hotels charge premium rates and present limited availability. An individual who feels that adopting green practices at SHs is inconvenient and not worth the effort would score high on RC. Such a traveler would be discouraged from re-patronizing an SH. Thus, it is hypothesized,

H6: Response cost has a negative influence on RI for SHs.



3. Methodology

Given that the objective of the study is to explore antecedents of RI for SHs, purposive and snowball sampling were relied upon. The respondents were required to satisfy the criteria: (i) Indian resident, (ii) above 18 years in age, and (iii) have stayed at a certified SH in India in

the previous one year. Since there is no sampling frame available for this specific population, a non-probability design was deemed suitable (Wang & Wong, 2021).

The measurement scale was adapted from previous research (**refer Table 2**). Modifications were made to align it to the Indian context. A five-point Likert scale was utilized. Data collection was carried out between January-March 2025. Due informed consent was obtained from the participants at the time. The questionnaire was circulated using social media platforms such as WhatsApp and Instagram. Emphasis was also placed on disseminating the survey on LinkedIn groups related to ecotourism.

Data was initially collected from 317 participants. After data cleaning, 308 remained and were used for analysis. The final sample of 308 satisfied the minimum criteria of 200 respondents for PLS-SEM analysis, as specified by Hair et al. (2021).

4. Results

Table 1 presents the demographics of the respondents.

Table 1: Demographics

Parameter	Group	Number (percentage)
Gender	Male	171 (55.52%)
	Female	137 (44.48%)
Age	18-25	22 (7.14%)
	26-35	52 (16.88%)
	36-45	61 (19.81%)
	46-55	75 (24.35%)
	55 and above	98 (31.82%)
Family Income (monthly) (in INR or ₹)	Less than 1,00,000	0 (0%)
	1,00,000 – 3,00,000	91 (29.54%)
	3,00,000 – 5,00,000	171 (55.52%)
	Greater than 5,00,000	46 (14.94%)

SmartPLS was employed for conducting the analysis. Assessment of the measurement model was observed to be satisfactory as per the requirements set by (Hair et al., 2017) (**refer Tables 2 and 3**).

Table 2: Measurement Model

Variable (source)	Outer Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
LCK (Salem et al., 2022)		0.870	0.879	0.657
LCK1	0.776			
LCK2	0.789			
LCK3	0.807			
LCK4	0.830			
LCK5	0.848			
SE (Ibrahim et al., 2018)		0.796	0.801	0.710
SE1	0.854			
SE2	0.851			
SE3	0.823			
RE (Shafiei & Maleksaeidi, 2020)		0.864	0.866	0.712
RE1	0.838			
RE2	0.880			
RE3	0.874			
RE4	0.781			
RC (Deka et al., 2024)		0.869	0.903	0.713
RC1	0.874			
RC2	0.862			
RC3	0.869			
RC4	0.767			
RI (Ibrahim et al., 2018)		0.874	0.877	0.798
RI1	0.910			
RI2	0.902			
RI3	0.867			

Table 3: Fornell-Larcker (F-L) criterion and Heterotrait–Monotrait (HTMT) ratio

F-L					
	RI	LCK	RC	RE	SE
RI	0.893				

LCK	0.446	0.810			
RC	-0.310	-0.191	0.844		
RE	0.658	0.351	-0.193	0.844	
SE	0.602	0.385	-0.196	0.472	0.843
HTMT					
	RI	LCK	RC	RE	SE
RI					
LCK	0.499				
RC	0.330	0.202			
RE	0.757	0.397	0.212		
SE	0.718	0.449	0.228	0.567	

Next, the structural model was tested. A good model fit was established. Effect size figures exceeded 0.02 for all relationships. R^2 for Re-visit Intention (RI) was observed to be 0.581, signifying that the model explained 58.1% of variance in RI. The Q^2 values for RI and SE were greater than 0.

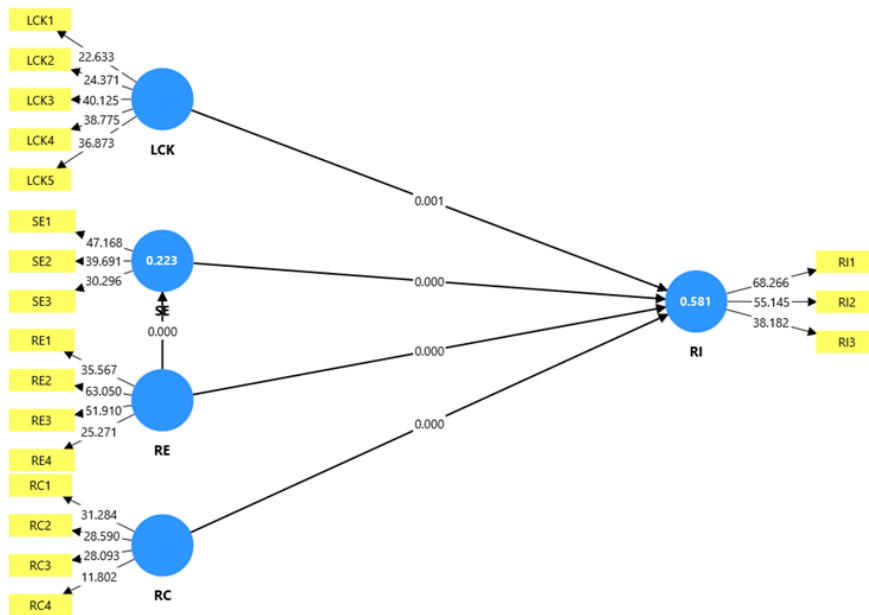
The results of hypothesis testing are shown in **Table 4 and Figure 2**. Findings revealed a significant impact of LCK, SE, RE, and RC on RI. Further, SE partially mediated between RE and RI. Thus, all hypotheses were accepted.

Table 4: Hypotheses Testing

Relationships	Beta	p value
H1: LCK à RI	0.148	0.001
H2: SE à RI	0.314	0.000
H3: RE à RI	0.431	0.000
H4: RE à SE	0.472	0.000
H5: RE à SE à RI	0.148	0.000
H6: RC à RI	-0.137	0.000

Note: Tested at 95% confidence level

Figure 2: Path model



5. Discussion and Conclusion

The research sought to examine re-visit intent (RI) forming factors for SHs. An extended PMT model was utilized to achieve this objective. The results reveal a positive effect of LCK on RI. This corroborates the study by Salem et al. (2022) and indicates that high LCK would enhance travelers' perception and understanding of green parameters employed by SHs. This would then facilitate re-visitation. Moreover, in conjunction with the findings of Deka et al. (2024), both SE and RE also influenced RI. This was supplemented by a partial mediation of SE in the link between RE and RI. Trust that the SH concept is preventing ecological deterioration, along with the role of collective efficacy, may impact travelers' SE. It suggests that high RE will reduce the complexity associated with SH decision-making, enhancing self-assurance, and ultimately contributing to RI. Furthermore, RC exerted a strong negative impact on RI. While this finding contradicts that of Ibrahim et al. (2018), it illustrates that with regard to hotel booking, travelers are more price sensitive and are unwilling to pay a

higher price at the cost of poor service quality. This also signifies the existence of the belief that adhering to green norms of SHs is uncomfortable and often not worthwhile.

5.1.Implications

This research proposes a theoretical lens that is grounded in the PMT framework, along with the cognition-based construct, LCK. The study thus adds to current knowledge: very few studies have explored LCK and its impact on embracing SHs. Applying PMT alongside LCK offers a comprehensive view of the psychological factors that shape green hotel decisions.

The study also offers implications for marketers, owners, and management of SHs. Hotels can highlight that the individual decision to book an SH is easy and meaningful, which will increase the perception of efficacy. Hotels may create guest experiences that are immersive by leveraging online technologies and virtual reality. Prominently displaying eco-certifications and educating the hotel staff to inform guests about carbon footprints and environmental programs would develop customer confidence and assurance. Employees should be trained to support guests in the implementation of green activities without hassle. Informing guests of the impact of their stay using in-room digital dashboards would improve response efficacy. Marketing materials must highlight personal benefits from an SH stay (e.g., fresh air, healthy food) so as to reduce response cost perceptions.

On the part of policymakers, tourism e-portals should incorporate a real-time list of certified SHs to make it easier for prospective patrons to identify them. Ultimately, the study will help pave the way for sustainable consumerism in India and help enhance the green tourism industry. It will be a step towards the Sustainable Development Goals as well as the Viksit Bharat vision of achieving developed economy status.

5.2.Limitations and future scope

While it offers several key insights, the study relied on judgment sampling and only on respondents from India, restricting the applicability of its findings. Since self-reported data was used, social desirability bias could arise. Future research could conduct longitudinal research to measure behavioral changes to fear-based stimuli over a period of time. The moderation effect of low-carbon knowledge on the linkages in the model may be tested.

Further, personality traits could also be used as moderators. Lastly, a cross-cultural comparison could be carried out to study how country culture impacts the uptake of SHs.

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