



From Understanding to Engagement: Advancing Smarter and Sustainable Tourism through Environmentally Responsible Travel Behaviour

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Abstract

Sustainable Tourism depends on how the tourists transform their knowledge and understanding of environmental concerns into travel intentions and actions. This article examines how the environmental awareness and personal values affect travel motivation and how it influences sustainable travel behavior. A quantitative research design was adopted and data were collected from 150 travellers using a structured questionnaire. The data were analyzed using descriptive statistics, reliability analysis, correlation, and regression techniques in SPSS. The findings show that environmental awareness and personal values have a significant positive influence on travel motivation. The findings also suggest that travel motivation plays an important role in encouraging travellers to adopt environmentally responsible and sustainable travel behavior. Overall, the study emphasizes a clear pathway from understanding to engagement in sustainable tourism. The findings offer practical insights for policymakers and tourism stakeholders to design appropriate strategies so as to promote smarter and more sustainable tourism development.

Keywords: *Sustainable Tourism; Environmental Awareness; Travel Motivation; Responsible Travel*

Introduction

Gone are the days when people are confined to their native places. Now-a-days with the advent of globalization and open economy, people travel far and wide for businesses or simply for tourist attractions. However, continuous exposure of these treasured tourist places causes environmental deterioration and degradation, which will have long term environmental problems. In these circumstances, it is imperative to protect our environment through sustainable tourism. Sustainable tourism increasingly emphasizes the role of tourists in supporting environmental conservation and destination sustainability. Ecotourism has been recognized as a form of responsible travel that promotes environmental protection, environmental education and benefits for local communities, highlighting the importance of tourists' awareness, attitudes and actions in achieving sustainable outcomes (Liu et al., 2018).



However, a gap often exists between environmental awareness and actual travel behaviour. Although environmental awareness and concern for environmental issues have increased, environmentally aware individuals may still engage in travel practices, which contribute to environmental impacts, indicating that awareness does not always translate into environmentally responsible behaviour (Wolf-Watz, 2014). This suggests that additional factors are needed to transform environmental understanding into responsible behaviour during travel.

Travel experiences and personal evaluations play an important role in encouraging environmentally responsible behaviour among tourists. Positive perceptions of value, satisfaction with travel experiences, and active involvement in ecotourism activities have been found to promote environmentally responsible behaviour, demonstrating that meaningful travel experiences can strengthen tourists' commitment to sustainable practices (Chiu et al., 2014). Therefore, understanding how environmental awareness and personal values contribute to travel motivation is important for fostering environmentally responsible and sustainable travel behaviour.

Sustainable tourism has progressed from a development – focused framework into a behavior driven perspective that places tourists at the center of achieving ecological, socio-cultural and economic sustainability (Butler, 1999; Curtin, 1999). While emerging sustainability frameworks focused planning and policy at the destination level, modern research reveals that the tourists daily decision such as resource use, waste management, transportation choice and respect for local ecosystem- carefully evaluates whether sustainability principles are translated into practice (Boes et al., 2016). The shift detects tourists as active agents whose behaviour directly shapes long-term destination viability.

Travel motivation, combined with enabling mechanism such as smart tourism tools and supportive destination contexts play a key role in bridging the gap between knowledge and behaviour (Shen et al., 2020; Li et al., 2023). Travellers motivated by learning, ethical responsibility or cultural appreciation are more likely to involve in environmentally sustainable practices, while those seeking relaxation or entertainment may view such behavior as inconvenient (Li et al., 2023). Integrating sustainability into enjoyable and meaningful travel experience is therefore essential for fostering lasting environmentally sustainable travel behaviour, supporting both destination sustainability and the quality of travellers experiences (Boes et al., 2016).

Sustainable Tourism and Responsible Travel Behaviour

Sustainable tourism has gradually moved from being a development-focused concept to a behaviour-driven paradigm, placing travellers' actions at the core of reaching environmental, socio-cultural, and economic sustainability at destinations (Butler, 1999; Curtin, 1999). Environmentally Responsible Travel Behaviour (ERTB) includes practices such as conserving resources, reducing waste, using energy efficiently, respecting local ecosystems, and engaging ethically with local population (Li et al., 2023; Shen et al., 2020). These behaviours not only minimize the negative impacts of tourism but also enhance tourist experiences and long-term destination endurance.

Tourism destinations operating within the smart tourism paradigm aim to ensure the efficient, responsible, and sustainable use of tourism resources. This objective can be achieved by encouraging tourists to actively participate as co-managers, co-designers, and co-creators of tourism experiences (Shen, Sotiriadis, & Zhou, 2020).

Ecotourism contributes to sustainable tourism development by enhancing visitors' environmental awareness through environmental education and encouraging responsible environmental actions that support local conservation and community well-being (Wang et al., 2021).

Despite increased levels of environmental awareness, tourists often fail to adopt responsible practices during travel, a phenomenon largely recognized as the attitude-behaviour gap (Dolnicar et al., 2019; Shen et al., 2020). Holidays are generally seen as a break from everyday responsibilities, leading to higher consumption, less environmental sensitivity, and limited adherence to sustainability practices (Curtin, 1999). This



highlights that knowledge alone is insufficient to drive responsible behaviour, necessitating strategies that embed sustainability into the travel experience rather than presenting it as an external obligation.

Travel motivation plays a critical role in transforming environmental understanding into action. Tourists motivated by learning, ethical responsibility, appreciation of nature, or cultural respect are more likely to engage in sustainable practices such as supporting local economies, conserving resources, and protecting cultural and ecological heritage (Shen et al., 2020; Li et al., 2023). Conversely, when relaxation and entertainment are the primary motivators, sustainable behaviour is often seen as inconvenient or restrictive. Thus, integrating sustainability into meaningful and enjoyable experiences is essential to encourage lasting behaviour change.

Smart tourism frameworks provide practical mechanisms to bridge this gap between knowledge, motivation, and action. Destinations that leverage digital technologies, mobile applications, and interactive platforms can guide tourists to make responsible choices throughout the travel journey (Boes et al., 2016; Shen et al., 2020). Features such as personalised nudges, real-time environmental feedback, gamified sustainability challenges, and post-trip reflection encourage tourists to internalize sustainability values, transforming them from passive consumers into active co-creators of sustainable experiences.

Finally, behavioural engagement is strengthened by enabling contexts and infrastructure. Tourists are more likely to practice responsible behaviour when sustainable facilities are convenient, information is clear, and environmental impacts are made visible (Dolnicar et al., 2019). Participatory approaches, including eco-labels, community-based tourism, and visible sustainability initiatives, reinforce accountability and personal contribution, making environmentally responsible behaviour intuitive and rewarding (Li et al., 2023; Boes et al., 2016). By integrating awareness, motivation, smart tourism tools, and supportive contexts, destinations can progress from understanding to engagement, fostering long-term environmentally responsible travel practices that benefit tourists, communities, and the environment alike (Curtin, 1999; Dolnicar et al., 2019).

Environmental Behavior and Sustainable Travel

Environmental awareness plays a significant role in encouraging sustainable travel behavior. Tourists who understand environmental issues are more likely to recognize the consequences of their actions and adopt responsible practices during their trips. Environmental education not only increases knowledge about environmental protection but also motivates individuals to make informed decisions that support sustainability (Wang et al., 2024).

Research shows that environmental education positively influences tourists' attitudes, habits, and intentions toward responsible environmental behavior. Tourists who receive environmental education, either in their daily lives or at tourism destinations, are more likely to engage in environmentally responsible actions such as protecting natural resources, reducing waste, and respecting destination environments. These behaviors contribute directly to the achievement of sustainable tourism goals (Wang et al., 2024).

Environmental awareness also supports sustainable tourism by encouraging environment friendly choices among tourists and tourism stakeholders. In Bali, tourist awareness and preferences were found to significantly influence sustainable tourism development through support for environment friendly products, services, resource management practices, and environmental preservation initiatives. Increased awareness helps reduce environmental impacts while promoting the long-term sustainability of tourism destinations (Mananda & Sudiarta, 2024).

Furthermore, environmental awareness extends beyond tourists to tourism employees and local communities. In the hospitality sector, employees' environmental awareness strengthens sustainable tourism by promoting environmentally responsible practices and supporting green initiatives within tourism businesses. Similarly, awareness among local communities enhances support for environmental protection measures and sustainable tourism development, contributing to the preservation of natural and cultural resources for future generations (El-Tahhan, 2024; Ravikumar et al., 2022).



Review of Literature

Sustainable tourism increasingly depends on tourists' behaviour, as visitor actions are major contributors to environmental and social pressures at destinations. Despite expressing concern for sustainability, research consistently identifies an attitude-behaviour gap, where environmental awareness does not automatically translate into responsible travel practices (Shen et al., 2020; Dolnicar et al., 2019). Tourists often perceive holidays as a break from everyday responsibilities, leading to higher resource consumption and reduced environmental sensitivity (Curtin, 1999).

Travel motivation plays a key role in converting environmental understanding into environmentally responsible behaviour. Tourists motivated by learning, cultural respect, and ethical responsibility are more likely to adopt sustainable practices, such as conserving resources, respecting local communities, and supporting local economies (Shen et al., 2020; Li et al., 2023). Conversely, when motivation is dominated by relaxation and enjoyment, sustainable practices are often perceived as inconvenient (Li et al., 2023). This highlights the importance of integrating sustainability into meaningful and enjoyable tourism experiences.

Smart tourism provides a framework to transform responsible intentions into sustained engagement. Smart tourism destinations leverage digital technologies, real-time information, and interactive platforms to guide tourists toward informed and responsible choices, reduce behavioural barriers, and encourage post-trip reflection (Boes et al., 2016; Shen et al., 2020). Technology serves as an enabler, requiring active participation from both tourists and stakeholders. Behavioural engagement is further supported by situational and structural factors, such as accessible infrastructure, clear communication, and convenient sustainable options, which enhance tourists' sense of involvement and accountability (Dolnicar et al., 2019).

Recent systematic reviews indicate that environmental knowledge alone is insufficient to foster sustainable behaviour. Cognitive understanding of environmental issues forms a necessary foundation, but behavioural engagement is more strongly influenced by psychological factors, including environmental attitudes, moral norms, perceived responsibility, and emotional connection to destinations (Li et al., 2023). The persistent attitude-behaviour gap underscores the need for interventions that combine personal norms, motivational factors, and situational cues to encourage responsible travel behaviour (Dolnicar et al., 2019; Li et al., 2023).

However, there remains a lack of proper empirical studies examining the combined influence of environmental awareness and personal values on travel motivation and how this motivation subsequently translates into environmentally responsible and sustainable travel behaviour.

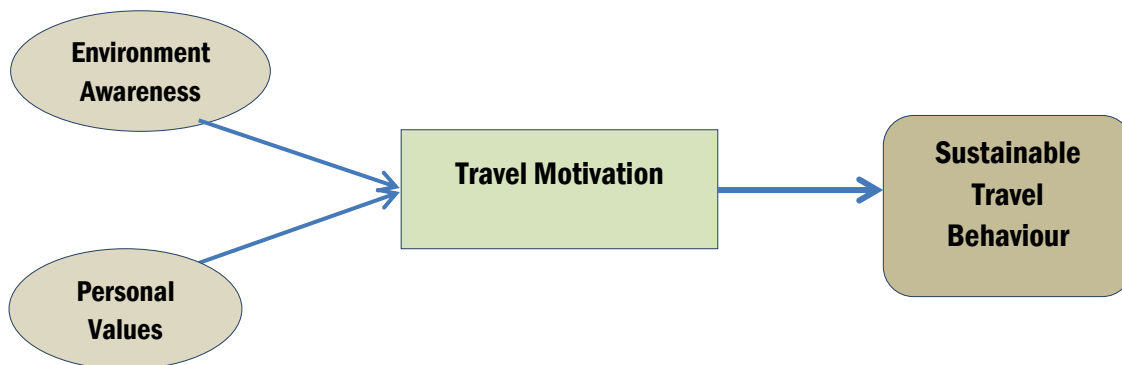
To address the research objectives and bridge the identified gap in the literature, the study seeks to answer the following research question: How do environmental awareness and personal values influence tourists' travel motivation, and how does this motivation help environmentally responsible and sustainable travel behaviour?

This study aims to examine the influence of environmental awareness and personal values on sustainable travel motivation and to analyze how travel motivation effects environmentally responsible and sustainable travel behaviour.

Although awareness and knowledge of environmental issues are important, tourists often struggle to turn understanding into action due to motivational and contextual factors. Sustainable tourism requires strategies that actively engage tourists as co-creators of responsible experiences, encouraging long-term environmentally responsible behaviour.



Conceptual Framework



Methodology

This study adopts a quantitative research approach to examine the influence of environmental awareness and personal values on travel motivation, and the subsequent effect of travel motivation on environmentally responsible and sustainable travel behaviour. A structured questionnaire was developed to collect primary data from tourists, focusing on variables such as environmental awareness, personal values, travel motivation, and sustainable travel behaviour. The study targeted domestic and international tourists visiting ecotourism destinations, and a total of 150 respondents participated using a purposive sampling technique to ensure relevance to sustainable travel contexts.

The collected data were analysed using descriptive statistics to understand respondents' profiles and travel patterns, while inferential statistics, including correlation, regression analysis, and one-sample t-tests, were employed to examine the relationships between variables. Reliability and validity of the measurement scales were established through Cronbach's alpha and exploratory factor analysis. The descriptive statistics revealed that respondents demonstrate a strong inclination toward sustainable tourism. Additionally, the study assessed the attitude-behaviour gap by examining how environmental awareness and personal values translate into travel motivation and sustainable travel behaviour. Findings from this methodology provide insights into mechanisms that can enhance tourists' engagement in environmentally responsible practices.

Results and Discussions

Profile of the Respondents

Table 1: Demographic Profile of the Respondents

Demographics	Category	Frequency	Percentage (%)
Gender	Male	69	46.0
	Female	81	54.0
	Total	150	100
Age Group	18–30 years	78	52.0
	31–45 years	50	33.3
	Above 45 years	22	14.7
	Total	150	100
Educational Qualification	Plus Two or Below	16	10.7
	Undergraduate	56	37.3
	Postgraduate & Above	78	52.0
	Total	150	100
Employment Status	Student / Unemployed	38	25.3
	Private Employed	70	46.7
	Government Employed	34	22.7
	Self-Employed	8	5.3
	Total	150	100
Monthly Income	Below ₹25,000	32	21.3



	₹25,001–₹50,000	71	47.3
	Above ₹50,000	47	31.3
	Total	150	100
Marital Status	Single	54	36.0
	Married	96	64.0
	Total	150	100

Table 1 presents the demographic composition of the respondents. The gender distribution indicates that females (54%) slightly outnumber males (46%), showing balanced representation. A majority of respondents (52%) belongs to 18–30 years' age group, followed by 31–45 years (33.3%), reflecting that the study is largely youth-oriented.

In terms of education, over half of the participants (52%) possesses postgraduate qualification or above, indicating a highly educated sample. Employment status shows that private employees form the largest group (46.7%), while students/unemployed respondents account for 25.3%, suggesting that both professionals and young individuals are well represented.

Regarding income, nearly half (47.3%) earns between ₹25,001–₹50,000 per month, reflecting a middle-income profile. Marital status data shows that 64% are married. Overall, the sample largely represents young to middle-aged, educated, and economically sound individuals, making it suitable for examining sustainable tourism awareness and behaviour.

Descriptive Statistics of Study Variables

Table 2: Descriptive Statistics

Variable	Mean	Std. Deviation	Level
Environmental Awareness	4.01	0.64	Very High
Personal Values	3.95	0.70	High
Travel Motivations	3.88	0.66	High
Sustainable Travel Behavior	4.08	0.61	Very High

The descriptive statistics show that respondents demonstrate a strong inclination towards sustainable tourism. Environmental awareness and sustainable travel behavior recorded very high mean scores, while personal values, travel motivations, eco-tourism practices, and travel behavior also show similar high level. This indicates that participants possess positive sustainability-oriented attitudes and practices.

H1: Respondents demonstrate a significantly higher level of sustainable tourism-related attitudes and behaviors than the neutral point, reflecting strong engagement in environmentally responsible travel practices.

H1a: Respondents exhibit a significantly higher level of Travel Behavior than the neutral point, indicating an active engagement in tourism activities.

H1b: Respondents demonstrate a significantly higher level of Environmental Awareness, reflecting strong consciousness of ecological and sustainability issues in travel.

H1c: Respondents hold significantly higher Personal Values orientation towards sustainability, suggesting that personal beliefs support environmentally responsible tourism.

H1d: Respondents show significantly higher Travel Motivation, implying that their motivations align with positive and sustainable tourism experiences.



H1e: Respondents engage in significantly higher Ecotourism Practices, reflecting adoption of environmentally friendly tourism behaviors.

Table 3: One-Sample Test Results for Tourism Constructs

Construct	Mean	Std. Dev	t	df	Sig. (2-tailed)	Mean Diff	95% CI of Diff (Lower Upper)
Travel Behavior	20.24	5.52	38.23	149	.000	17.24	16.35 – 18.13
Environmental Awareness	17.98	3.35	54.72	149	.000	14.98	14.44 – 15.52
Personal Values	19.65	3.54	57.61	149	.000	16.65	16.08 – 17.22
Travel Motivation	17.48	3.48	50.92	149	.000	14.48	13.92 – 15.04
Ecotourism Practices	18.37	3.42	54.99	149	.000	15.37	14.82 – 15.93

The one-sample t-test results confirm that the mean scores for all tourism-related constructs are significantly higher than the neutral value of 3 ($p < 0.001$). Participants reported high levels of travel behavior, environmental awareness, personal values, travel motivation and ecotourism practices. This suggests a strong inclination towards environmentally responsible and sustainable tourism practices among the respondents.

Objective 1: To examine the influence of environmental awareness and personal values on sustainable travel motivation.

H2: Environmental awareness has a significant positive influence on travel motivation.

H3: Personal values have a significant positive influence on travel motivation.

Table 4: Multiple Regression Table

Predictors	B	Std. Error	Beta	T	Sig.	R ²	Adj. R ²	F	VIF
Environment Awareness	0.607	0.070	0.585	8.691	0.000				1.262
Personal Values	0.180	0.066	0.183	2.718	0.007	0.473	0.466	65.929	1.262
Constant	3.022	1.351	–	2.238	0.027				–

The results of the multiple regression analysis support both hypotheses. Environmental awareness has a significant positive influence on travel motivation ($\beta = 0.585$, $p < 0.001$), confirming H1. Personal values also show a significant positive influence on travel motivation ($\beta = 0.183$, $p = 0.007$), supporting H3. The overall model is significant ($F(2,147) = 65.93$, $p < 0.001$) and explains 47.3% of the variance in travel motivation ($R^2 = 0.473$, $Adj. R^2 = 0.466$). Collinearity statistics indicate no multi-collinearity issues ($VIF < 2$), suggesting that both predictors independently contribute to motivating travel behavior.

Environmental awareness and personal values play a crucial role in shaping travel motivation, suggesting that psychological and ethical orientations of tourists influence their motivational drivers toward travel decisions.

Objective 2: To analyze the effect of travel motivation on environmentally responsible and sustainable travel behaviour.

H4: Travel motivation has a significant positive effect on environmentally responsible and sustainable travel behaviour.

**Table 5: Simple Regression Table**

Predictor	B	Std. Error	Beta	t	Sig.	R ²	Adj. R	F	VIF
Travel Motivation	0.765	0.065	0.695	11.751	0.000	0.483	0.479	138.235	1.000
Constant	4.110	1.159	–	3.545	0.000				–

Travel motivation has a significant positive influence on sustainable travel behaviour ($\beta = 0.695$, $p < 0.001$). The model explains 48.3% of the variance in sustainable travel behaviour ($R^2 = 0.483$, $F(1,148) = 138.235$, $p < 0.001$), indicating that higher travel motivation is strongly associated with greater engagement in sustainable travel practices. No multi-collinearity issues were observed ($VIF = 1.000$).

Higher travel motivation significantly enhances sustainable travel behaviour, indicating that motivated tourists are more likely to engage in environmentally responsible practices.

Key Findings

The study revealed that tourists demonstrate a strong orientation toward sustainable tourism. Respondents exhibited high levels of environmental awareness and personal values, indicating that they are conscious of the ecological and social impacts of their travel choices. These attitudes suggest that tourists are not only informed about sustainability issues but also care about integrating ethical considerations into their travel decisions. The findings highlight that awareness and values form the foundation for responsible tourism behaviour.

Travel motivation emerged as a key factor linking tourists' values and awareness to their travel behaviour. Individuals with stronger personal values and greater environmental consciousness were more likely to be motivated to engage in meaningful and responsible travel experiences. This suggests that motivation serves as a bridge between attitude and action, helping tourists transform their awareness and values into intentional travel choices. High motivation also reflects the importance of intrinsic drivers, such as enjoyment, personal growth, and ethical satisfaction, in shaping travel decisions.

The study further found that motivated tourists are more likely to adopt sustainable travel practices. Travel motivation translated into concrete behaviours, including choosing environmentally friendly options, respecting local cultures, and minimizing negative impacts on destinations. Overall, the findings indicate that tourists' ethical values, environmental awareness, and motivation collectively support responsible travel behaviour, emphasizing the need for tourism strategies that foster motivation and embed sustainability into the travel experience.

Conclusion

The study concludes that tourists exhibit high levels of environmental awareness and personal values, which strongly influence their travel motivation and, in turn, their engagement in sustainable travel behaviour. Environmental awareness and personal values were found to act as key ethical and psychological drivers, shaping the intentions and choices of tourists. Travel motivation emerged as a central factor that bridges the gap between attitudes and actual behaviour, demonstrating that motivated tourists are more likely to translate their awareness and values into responsible travel practices.

The findings highlight that the commonly cited attitude–behaviour gap in sustainable tourism can be mitigated when tourists' motivations align with their personal values and environmental consciousness. Tourists who are motivated not only seek enjoyable experiences but also consider the ethical and ecological



implications of their travel, making informed decisions that minimize negative impacts on destinations and local communities.

Overall, the study underscores the importance of strategies that go beyond awareness-raising. Tourism planners and stakeholders should focus on enhancing tourists' motivation and embedding sustainable practices into travel experiences, creating meaningful opportunities for responsible engagement. By fostering an environment where awareness, values, and motivation work together, destinations can encourage consistent sustainable behaviour, contributing to long-term tourism sustainability and the preservation of natural and cultural resources.

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