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Drivers of Eco-Responsible Tourism: The Role of Green Tourism Perception and Environmental Awareness

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Abstract

This study aims to provide valuable insights into the relationship between green tourism perception, environmental awareness, and responsible tourism behaviour among tourists visiting ecotourism destinations in East Java, Indonesia. As the importance of environmental preservation grows, it is crucial to understand the factors that drive tourists towards sustainable tourism practices. This study employs quantitative research methods, with data collected through questionnaire surveys from tourists at ecotourism destinations who demonstrate an inclination towards sustainable practices. The collected data were analysed using path analysis to test several hypotheses. The findings reveal that environmental awareness and green tourism perception significantly influence responsible tourism behaviour. Notably, environmental awareness is found to mediate the relationship between green tourism perception and responsible tourism behaviour. Positive perceptions of green tourism, accompanied by increased environmental awareness, can lead to sustainable tourism practices that reduce the negative impacts of the tourism sector on the environment. Therefore, it is crucial for tourism stakeholders, including government and industry, to develop strategies and promote sustainable tourism.

Keywords: Green tourism perception, environmental awareness, responsible tourism behaviour, sustainable tourism

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Introduction

In recent years, there has been an increase in interest in green or eco-friendly tourism activities due to the growing global awareness of tourism's detrimental effects on the environment (Meirejeki et al., 2022). There is also an increased awareness of how tourists can help mitigate the negative effects of tourism. When tourists select destinations, lodging, and experiences that follow sustainability principles, they directly participate in environmental preservation and support local communities (Alves et al., 2020; Expósito & Sánchez, 2020; Sarwar, 2022; Sungkawati & Uthman, 2024). Active participation of tourists in green tourism, including minimising plastic use, supporting conservation initiatives, or using environmentally friendly transportation, can reduce pressure on natural resources and help protect biodiversity (Kang et al., 2019; Labib et al., 2020). Conventional tourism substantially contributes to environmental degradation, increasing carbon emissions from travel, damaging ecosystems through infrastructure development, and polluting the environment with tourist waste (Rawanoko et al., 2023). Many popular destinations experience environmental degradation, such as damaged coral reefs due to irresponsible snorkelling or diving activities and wildlife habitats disrupted by urbanisation and tourism infrastructure (Habib et al., 2020; Muangmee et al., 2021; Rawanoko et al., 2023). In addition, excessive energy and water consumption in luxury hotels, as well as the use of single-use plastics in tourist attractions, further exacerbate the problem (Chung, 2020; Floričić, 2020). Hence, environmental considerations are paramount (Sunargo, 2022; Sungkawati, 2024). Tourists also need to be aware and embrace more responsible practices, such as choosing environmentally sound transport, supporting local conservation efforts, and minimising waste by bringing reusable water bottles and avoiding single-use plastics (Floričić, 2020; Habib et al., 2020). This minimises the adverse effects of tourism on natural ecosystems, ensuring their preservation for future generations (Baloch et al., 2023; Genoveva & Tanardi, 2022).

Green tourism, which focuses on sustainability and environmental preservation, is becoming a viable alternative to traditional tourism (Dewi et al., 2023). Zhicao & Yashu (2024) also state that this trend facilitates the development of the tourism sector by introducing eco-friendly goods and services in response to the global demand for responsible tourism. While green tourism stands to make strides globally, tourists' comprehension of sustainable practices and their role in increasing participation is also necessary (Nita et al., 2023). Observations about the increasing interest of travellers in greening tourist attractions in different countries indicate that green tourism is a global trend that is steadily developing among environmentally conscious travellers (Hanan et al., 2021; Lehnert et al., 2021). This trend is witnessed in almost all countries throughout the world. In 2023, 79% of global tourists expressed willingness to pay a standard increased rate of 10% for eco-tourism products and services, such as tree planting initiatives and clean environments (Euromonitor International, 2023). Commitment from tourists towards green tourism activities is essential for promoting environmental conservation and the welfare of local communities (Li et al., 2020; Whitfield et al., 2022). Through sustainable tourism activities, tourists can also help preserve resources, improve local businesses, and enhance community environmental awareness. Furthermore, it is crucial to shift people's perceptions and behaviours when there is a growing concern about climate change and its effects on daily life (Hasbiah, 2015; Logayah, 2021). Individuals with heightened environmental protection awareness are better able to contribute to ecosystem protection and advance sustainability (Lalinde et al., 2019; Lehnert et al., 2021; Sungkawati, 2024). Increasing

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tourist participation in green tourism allows them to enjoy the beautiful environment while simultaneously acting as its custodians for future generations (Nita et al., 2023). In an era where environmental issues are increasingly pressing, an understanding of how perceptions of green tourism can shape environmentally conscious behaviour is crucial for promoting destinations that are not only attractive but also sustainable (Idris et al., 2022). In tourism sustainability, the tangible impact of green tourism perceptions on environmentally conscious behaviour is steadily on the rise. Many studies show that positive perceptions of green tourism can increase tourists' awareness to behave more environmentally friendly during their trips (Alvianna et al., 2022; Dornan et al., 2018). A thorough analysis is needed regarding the influence of environmental awareness on eco-friendly tourism behaviour. In addition, perceptions of green tourism also influence tourists' thoughts and behaviours while travelling.

Literature review

Green tourism

Green tourism could be described as a way of living, a way of engaging with nature, and collaborating with it (Hasan, 2021; Meirejeki et al., 2022). Sustainability is the essence of green tourism, and the environment must be conserved to ensure sustainable tourism for future generations (Elfis et al., 2020). Green tourism or eco-tourism is a sub-sector of tourism that offers tourists environmentally sensitive holidays with the aim of supporting nature conservation and empowering local communities. As people become more conscious of their global environmental impact, eco-tourism has emerged as one of the most popular forms of tourism. This protects the environment and promotes the economic prospects of the surrounding communities at the same time (Sungkawati, 2024). Green tourism encompasses sustainable practices that promote efficient energy consumption, waste management, and reduced carbon emissions (Sunargo, 2022; Sungkawati & Uthman, 2024). For instance, eco-friendly hotels use green energy sources (solar, wind, etc.) to minimise energy consumption, conserve water, and recycle waste. In addition, green tourism also promotes responsible environmental behaviour among tourists, encouraging them to respect and preserve the surrounding ecosystems by refraining from littering or harming local flora and fauna (Kementerian Pariwisata [Ministry of Tourism], 2015). These practices help green tourism promote environmental sustainability and reduce the environmental impact caused by tourism.

Green tourism perception

The increasing global awareness regarding the finite nature of natural resources and the detrimental environmental consequences due to unsustainable tourism practices forms a critical backdrop for understanding individual perceptions of green tourism (Roblek et al., 2021). These perceptions are multifaceted, encompassing a spectrum of influences including personal attitudes towards environmental management, observed personal behaviours reflecting sustainable choices, the broad impact of social norms and community values, as well as the fundamental level of individual environmental awareness and knowledge (Ameen, 2019; Szabo & Webster, 2021). These interconnected aspects intricately shape how individuals perceive and interact with the principles of green tourism, ultimately influencing their travel-related decisions and behaviours. A significant component of this perception is rooted in tourists' awareness and understanding of pressing global environmental challenges, particularly climate change.

Environmental awareness

Environmental awareness encompasses public understanding of global ecological problems and their impact on consumer behaviour. A notable aspect is its connection with environmental education and evolving concerns about sustainability. A deep connection to nature influences human interactions with it, fostering environmental sensitivity and aiding in conservation efforts. Understanding the inherent connection between humanity and nature can act as a significant impetus for promoting environmental conservation initiatives (Salsabil & Roostika, 2024). Environmental awareness pertains to individuals' concern and understanding of environmental issues and their impact on behaviour (Aytekin et al., 2023). Typically, an individual's emotional response to environmental challenges intensifies as their concern grows. This concept also encompasses favourable and unfavourable perceptions regarding issues such as climate change and biodiversity loss (Genoveva & Tanardi, 2022; Habib et al., 2020). Several studies highlight the importance of ecotourism and environmental sustainability (Alves et al., 2020; Alvianna et al., 2022). Many studies have indicated environmental awareness as an important explanatory variable for people's engagement in environmentally conscious behaviours (Ahmad et al., 2022).

Responsible tourism behaviour

Responsible Tourism is a concept that has evolved from environmentally friendly tourism and sustainable tourism (Tlali & Musi, 2022). The goal of this concept is to educate the public on how to minimise the negative environmental, social, cultural, and economic impacts of tourism while maximising its positive effects (Balyali, 2023; Rawanoko et al., 2023). Responsible tourism encourages every traveller and tourism service provider to commit to reducing the negative impacts of tourism activities and supporting conservation efforts in Indonesia. It is also essential that tourism and new investments do not harm the environment and can coexist harmoniously with nature, maximising positive outcomes while minimising negative ones (Alvianna et al., 2022; Ayad et al., 2023). Responsible Tourism Behaviour refers to the conscious actions and choices undertaken by tourists to minimise negative impacts and maximise positive contributions to the environmental, social, and economic well-being of destinations and local communities they visit. It goes beyond simply being a tourist and embodies a proactive approach towards sustainability in travel.

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Conceptual framework and hypothesis

Therefore, the present study is important for investigating the relationships between green tourism perceptions, environmental awareness, and responsible tourism behaviours. In investigating these factors, this research seeks to understand how tourists' attitudes and knowledge influence their decisions and actions when engaging in tourism activities. The objective is to establish the relationship between green tourism perception, environmental awareness, and responsible tourism behaviour. Figure 1 shows the study's conceptual framework as follows.

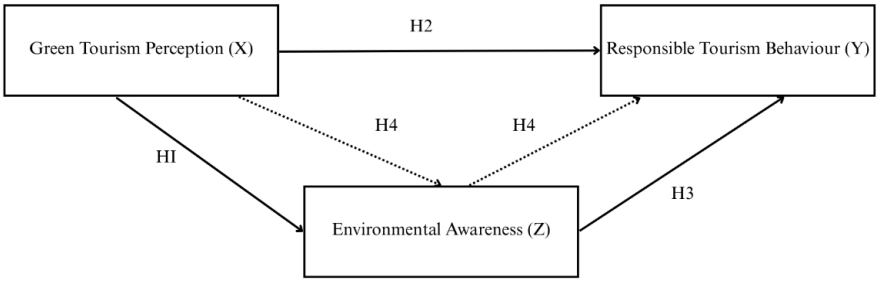

Figure 1. Path analysis

After that, to ascertain the direct and indirect correlations among the variables in this study, the research hypothesis is articulated as follows:

H1: Green tourism perception positively impacts environmental awareness.
H2: Green tourism perception significantly influences tourists' engagement in responsible tourism practices.
H3: Environmental awareness directly and significantly influences responsible tourism behaviour.
H4: Environmental awareness mediates the relationship between green tourism perception and responsible tourism behaviour.

Research method

The explanatory pattern (degree of explanation) used in this study tries to describe the patterns of impact or link between two or more variables by the research topic and objectives (Bentouhami et al., 2021). These relationships can be symmetrical, causal, or reciprocal. This research was conducted at ecotourism destinations in East Java, Indonesia. The study's target audience comprises 500 visitors visiting ecotourism sites in East Java. The population was randomly sampled from visitors at the ecotourism destination to find results that can be generalised (Yuniasih et al., 2023). Data was collected through questionnaires designed to measure perceptions of green tourism, environmental awareness, and responsible tourism behaviour. This study used Path Analysis to examine the data. route analysis, a kind of multiple regression, uses route diagrams to evaluate intricate hypotheses (Harris & Gleason, 2022). This methodology may evaluate both direct and indirect impacts. The employed path analysis model is a mediation model, whereby the presence of variable Z (Environmental Awareness as a mediating variable) modifies the impact of variable X (Green Tourism Perception) on variable Y (Responsible Tourism Behaviour). This impact may either diminish or amplify, and the direct effect is evaluated for significance by the t-test (Picauly et al., 2023). At a significance level of $\alpha = 5\%$, the criteria for the acceptance or rejection of hypotheses one, two, and three are as follows: if the likelihood is less than 5%, then H0 is rejected and H1 is accepted; conversely, if the probability exceeds 5%, then H0 is accepted and H1 is rejected. A comparison is made between the total impact and the direct effect to ascertain if environmental awareness mediates the association between green tourism perception and responsible tourist behaviour. If the cumulative impact of environmental awareness exceeds the direct influence of green tourism perception, it indicates that environmental awareness mediates the interaction between these two variables.

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Results

The results portion of the study delineates the findings from the path analysis about the correlation between responsible tourist behaviour and two contributing factors: environmental awareness and green tourism perception. The direct impact of green tourism perception on responsible tourist behaviour is a causal relationship, excluding environmental knowledge as a mediating variable. The indirect impact refers to a theoretical causal effect of green tourism perception on responsible tourist behaviour mediated by environmental awareness.

Respondent description

The results of the respondents' characteristics used in the study can be seen in Table 1. The table summarises the characteristics of the 500 respondents in this survey, providing useful insights into the demographic profile of ecotourists in East Java. The gender distribution indicates a notable trend, with female visitors representing 57% of the sample, whilst male visitors constitute 43%. This suggests a potential inclination or increased opportunity for females to participate in ecotourism activities in the

area. The age distribution indicates a pronounced interest in ecotourism among younger demographics, with the 21-25 age group being the biggest section of visitors at 33% (165 persons). This indicates that ecotourism in East Java is very attractive to the young. Students are the predominant demographic among visitors, with 32% (160 persons) of the total responses. This underscores the notion that ecotourism in East Java significantly attracts the youth and student demographic, likely attributable to factors such as educational interest, the cost-effectiveness of certain ecotourism alternatives, or heightened awareness and concern for environmental issues within this group. The demographic factors provide essential background for comprehending views and behaviours associated with green tourism in this research.

Table 1: Description of research respondents

Item	Optional	Frequency	%
Gender	Male	285	43
	Female	215	57
Occupation	Civil Servant	80	16
	Private Employee	120	24
	Self-employed	140	28
	Student	160	32
Age	21 -25	165	33
	26 - 30	145	29
	31 - 35	85	17
	36 - 40	60	12
	40	45	9

Combined pathway analysis and hypothesis results

This study employs path analysis using a two-model regression approach. The first model examines the individual path values of the influence between independent variables and the intervening variable. Subsequently, the second regression model is used to assess the influence of both independent and intervening variables on the dependent variable. The findings of the conducted tests are summarised in Tables 2 and 3:

Table 2: Result path coefficients and mediating effects

Hypothesis	Paths	β	*P-Value*	Result
Hypothesis 1	Green Tourism Perception → Environmental Awareness	0,523	0.000	Significant
Hypothesis 2	Green Tourism Perception → Responsible Tourism Behaviour	0,478	0,000	Significant
Hypothesis 3	Environmental Awareness → Responsible Tourism Behaviour	0.306	0.001	Significant

Table 3: Summary of the mediation results

Hypothesis 4	Paths	β	*P-Value*	Result
Total Effect	Green Tourism Perception → Responsible Tourism Behaviour	0,249	0.000	
Total Indirect	Green Tourism Perception → Responsible Tourism Behaviour	0.478	0,000	
Specific Indirect Effect	Green Tourism Perception → Environmental Awareness → Responsible Tourism Behaviour	0.772	0.000	Significant

The results shown in Tables 2 and 3 indicate a relationship between the three variables discussed in the research. The path analysis model can be illustrated in Figure 2 through a diagram showing the relationship between the three variables as follows.

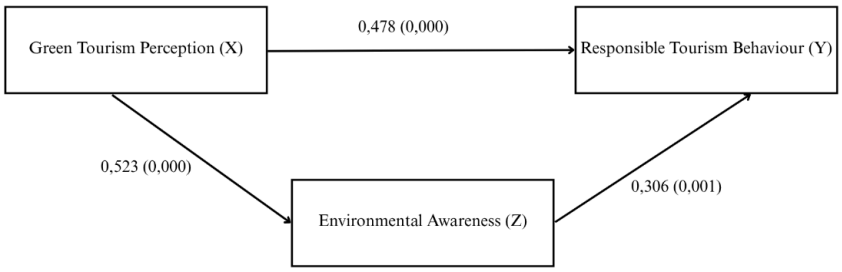

Figure 2. Variable relational model

The path diagram in Figure 2 articulates the hypothetical relationship between three key variables in tourism. Basically, Green Tourism Perception (X) represents the opinion where travellers understand and evaluate the principles and practices related to eco-friendly travel. Summarising their understanding of what green tourism is, its potential benefits, and its relevance to their travel experiences. Related to this is Environmental Awareness (Z), which indicates the general level of understanding and awareness among travellers about broader environmental issues and challenges. This awareness includes their knowledge of ecological issues, the impact of human activities on the environment, and the importance of conservation efforts. Finally, Responsible Tourism Behaviour (Y) means concrete actions and decisions taken by tourists with the explicit aim of minimising the negative impacts that their travels may have on the natural environment and the local culture of their destinations. The flowchart shows the directed flow of influence between these variables, implying that tourists' perceptions of green tourism and their underlying environmental awareness play a crucial role in the adoption of responsible tourism behaviour. The path analysis results demonstrate a direct correlation between Green Tourism Perception (X) and Responsible Tourism Behaviour (Y), measured at 0.478. A p-value of 0.000 indicates a statistically significant positive correlation between perceptions of green tourism and responsible tourist behaviour. This suggests that as visitors' perceptions of green tourism improve, their likelihood

of participating in responsible tourism behaviour rises. A correlation coefficient of 0.523 and a p-value of 0.000 indicate a statistically significant positive relationship between green tourism perception (X) and environmental consciousness (Z). This outcome suggests that a positive perception of green tourism increases environmental awareness among visitors. The correlation coefficient between Environmental Awareness (Z) and Responsible Tourism Behaviour (Y) is 0.306, accompanied by a p-value of 0.001, signifying a statistically significant positive relationship between the two variables. The total indirect effect, facilitated by environmental knowledge, strengthens the relationship between green tourism perception and responsible tourist behaviour by 0.772. Increased environmental knowledge among tourists is associated with a greater likelihood of responsible behaviour during travel. The results of this study suggest that the primary hypothesis is as follows.

H1: Green tourism perception has a direct influence on environmental awareness.
H2: Green tourism perception has a direct influence on responsible tourism behaviour
H3: Environmental awareness has a direct influence on responsible tourism behaviour
H4: Environmental awareness mediates the relationship between green tourism perception and responsible tourism behaviour

Discussion

The statistical analysis of this research unequivocally reveals a strong and positive relationship between environmental awareness and green tourism perception. The hypothesis positing a positive association between these two variables is robustly supported by the extremely significant p-value of 0.000 and a Pearson correlation coefficient of 0.523. This compelling evidence strongly suggests that individuals with a greater understanding and awareness of environmental issues are significantly more likely to hold a more positive and comprehensive perception of green tourism. This perception, encompassing tourists' views on measures aimed at the conservation of nature, the preservation of cultural heritage, and the generation of benefits for local communities, is likely to be substantially shaped by individuals' pre-existing levels of environmental knowledge (Thang & Thanh, 2023). Individuals possessing a deeper understanding of ecological principles and environmental challenges are generally more receptive and hold a more optimistic outlook towards the objectives and activities associated with green tourism. This favourable predisposition can significantly motivate them to actively select eco-friendly tourist products and services and endorse sustainable practices throughout their travel experiences. Conversely, the experiences and knowledge directly acquired through engagement in green tourism activities can, in turn, significantly enhance an individual's environmental consciousness. Direct interaction with pristine natural environments, gaining firsthand understanding of the conservation initiatives implemented at a specific location, and engaging with local communities who possess valuable ecological knowledge (Molnár & Babai, 2021) can broaden perspectives and cultivate a deeper sense of respect for the critical importance of environmental preservation. Furthermore, educational components frequently integrated into the green tourism experience play a vital role in significantly enhancing tourists' comprehension of both global and localised environmental challenges (Ibnou-Laaroussi et al., 2020). Therefore, the relationship between the concept of green tourism and environmental consciousness is not unidirectional but rather dynamic and mutually reinforcing. Positive perceptions of green tourism often stem from a pre-existing foundation of environmental awareness, while active participation in green tourism experiences can simultaneously enhance and broaden an individual's understanding and appreciation of environmental issues. Cultivating and enhancing environmental understanding among tourists can lead to a deeper appreciation for the values and principles of green tourism, which, in turn, may serve as a powerful catalyst for elevating overall environmental care and stewardship (Üzülmez et al., 2023).

The hypothesis test results show that there is a significant positive and moderate relationship between responsible tourism behaviour and green tourism perception. Green tourism perception has a positive correlation towards responsible tourism behaviour at a p-value of 0.048 with a coefficient of 0.478; thus, it can be said that responsible tourism behaviours can be greatly influenced by green tourism perception. This suggests that an increase in good perceptions of green tourism leads to an increase in participation in responsible tourism behaviours. When tourists possess a comprehensive understanding and favourable perception of green tourism, defined as travel that is environmentally sustainable, culturally respectful, and economically beneficial to the community, they are more inclined to engage in behaviours that reflect these principles. This favourable perception can affect all facets of their behaviour, including lodging and transportation selections. Tourists with a favourable perception of green tourism are more inclined to select hotels that possess eco-friendly certifications or sustainable practices, and to seek transportation alternatives that have a reduced carbon impact. Regarding participation in sustainable activities, they will be more predisposed to engage in ecotourism, endorse local conservation programs, and foster beneficial interactions with the local population. A favourable view of green tourism can motivate travelers to purchase locally produced goods and handicrafts made sustainably, while also discouraging environmentally harmful consumption (Zhicao & Yashu, 2024). Tourists who comprehend and value the tenets of green tourism are more likely to adhere to the norms, traditions, and legislation of the countries they visit. Minimising negative impacts entails that tourists will exercise greater caution in trash disposal, utilise natural resources judiciously, and refrain from actions that may harm the environment or disturb the socio-cultural fabric of the local community. Perception in green tourism functions as a cognitive filter that affects tourists' evaluations of their options and the repercussions of their activities. If individuals regard green tourism as significant and advantageous, they are more inclined to assimilate such values and incorporate them into their conduct when traveling. Comprehending this link is crucial for destination managers and stakeholders in the tourism sector. By augmenting comprehension and fostering a favorable view of green tourism among travelers, an increase in responsible tourism behaviour is anticipated. This can be accomplished by education, disseminating clear information regarding green tourism practices, and delivering travel

experiences that correspond with sustainable principles. The interplay between favourable attitudes and ethical conduct will foster a more sustainable future for tourism and yield enduring advantages for all stakeholders (Hadi & Johan, 2023)

The statistical study found a highly significant correlation between responsible tourism behavior and environmental awareness. These results seem to strongly suggest that people who are more aware of the climate and the dangers of tourism tend to engage in responsible tourism practices (p-value: 0.001 and coefficient: 0.306). This study confirmed the hypothesis, which states that environmental awareness directly affects responsible tourism behavior. The correlation between environmental consciousness and responsible green tourism is essential for the sustainable advancement of the tourism sector. This examines how individuals' comprehension and concern for the environment affect their behaviors and decisions as visitors. This relationship is essential for mitigating the adverse effects of tourism while enhancing its benefits to global locations. Environmental awareness denotes an individual's comprehension of ecological issues, their insight into ecosystem interrelations, and their care for the planet's welfare. Environmental awareness refers to an individual's capacity to comprehend and assimilate environmental issues, encompassing the causes and effects of environmental degradation. Environmentally conscious tourists are generally more inclined to pursue knowledge regarding sustainable tourism practices (Kim et al., 2021). Select responsible service providers, and participate in activities that honor the environment and local culture. Moreover, environmental knowledge cultivates a sense of responsibility and stewardship for the earth, prompting tourists to make decisions consistent with sustainability principles. Travellers cognizant of climate change's impact are more inclined to use low-carbon transportation methods, minimise energy usage, and endorse programs designed to mitigate greenhouse gas emissions (Kanwal et al., 2024). Specific instances of such initiatives include selecting sustainable lodging and travel operators. Tourists may seek lodgings that possess eco-friendly certifications or adopt sustainable methods, including energy and water conservation, waste management, and utilisation of local resources. They may select tour operators who emphasise responsible activities, including reducing environmental effects, aiding local people, and offering knowledge regarding the environment and culture. Promoting responsible tourism behaviour necessitates a comprehensive strategy that includes enhancing environmental awareness, educating on sustainable behaviours (Wang et al., 2024), and fostering an atmosphere conducive to informed decision-making by tourists. The government, non-governmental organisations, and tourism industry stakeholders significantly contribute to fostering environmental awareness and responsible conduct through several projects. Environmental consciousness and responsible tourism practices are intrinsically linked. By enhancing environmental consciousness and advocating for responsible tourism practices, we may cultivate a more sustainable and inclusive tourism sector that advantages passengers, local communities, and the planet collectively.

As shown in Table 3, environmental awareness is a significant mediator between green tourism perception and responsible tourism behaviour, with a high coefficient of 0.772. The statistical data analysis using a t-test ($p < 0.05$) shows a high positive relationship between environmental awareness and responsible tourism behaviour as well as green tourism perception and responsible tourism behaviour. Moreover, perceptions of green tourism directly boost responsible tourism behaviour with a Pearson correlation coefficient of 0.478 ($p < 0.05$). The correlation between environmental consciousness and accountable green tourism is essential for the sustainable advancement of the tourism sector. This examines how individuals' comprehension and concern for the environment affect their behaviours and decisions as visitors. This relationship is essential for mitigating the adverse effects of tourism while enhancing its benefits to global locations (Risfandini, 2024). Environmental awareness denotes an individual's comprehension of ecological issues, their insight into ecosystem interrelations, and their regard for the planet's welfare. Environmental awareness refers to an individual's capacity to comprehend and assimilate environmental issues, encompassing the causes and effects of environmental degradation. Environmentally conscious tourists are generally more inclined to pursue knowledge regarding sustainable tourism practices, select responsible service providers, and participate in activities that honour the environment and local culture. Furthermore, environmental knowledge cultivates a sense of responsibility and stewardship for the earth, prompting tourists to make decisions consistent with sustainability principles. Travellers cognizant of climate change's effects are more inclined to use low-carbon transportation methods, minimise energy usage, and endorse programs designed to mitigate greenhouse gas emissions. Specific instances of such initiatives include selecting sustainable lodging and travel operators. Tourists may seek lodgings that possess eco-friendly certifications or employ sustainable methods, including energy and water saving, waste management, and utilisation of local resources. They may select tour operators who emphasise responsible activities, including reducing environmental effects, aiding local people, and offering knowledge regarding the environment and culture. Promoting responsible tourism behaviour necessitates a comprehensive strategy that includes enhancing environmental awareness, educating on sustainable behaviours, and fostering an atmosphere conducive to informed decision-making by tourists. The government, non-governmental organisations, and tourism industry stakeholders significantly contribute to fostering environmental awareness and responsible conduct through several projects. Environmental consciousness and responsible tourism practices are intrinsically linked. By enhancing environmental consciousness and advocating for responsible tourism practices, we may establish a more sustainable and inclusive tourism sector that benefits passengers, local communities, and the planet collectively.

This research underscores the pivotal role of environmental consciousness in mediating the relationship between an individual's perception of green tourism and their subsequent responsible tourism behaviour. The statistical findings, with a highly significant p-value of 0.000 (as detailed in Table 3), demonstrate a substantial and statistically significant direct influence of green tourism perception on the adoption of responsible tourism behaviour, clearly establishing a strong link between how tourists view green tourism and their actual sustainable actions. Moreover, the study's analysis reveals that environmental awareness plays a crucial mediating function in this relationship, suggesting that the impact of green tourism perception on

responsible tourism behaviour is significantly channelled through an individual's underlying environmental consciousness. This implies that tourists visiting ecotourism destinations in East Java, Indonesia, are more likely to actively engage in green tourism behaviours when they possess a higher degree of environmental awareness. The motivations driving tourists towards green tourism are often rooted in environmentally conscious considerations, such as a preference for spending their vacations in eco-friendly accommodations and engaging in activities that minimise environmental impact (Luongo et al., 2024). This research seeks to elucidate the elements that affect environmentally aware visitors' desire to engage actively in sustainable tourism activities via the use of the suggested framework. This research provides significant insights into perceived environmental challenges and the larger idea of green tourism by clarifying passengers' views towards sustainable tourism via planned behaviour analysis. Consequently, this research provides a valuable empirical foundation for future scholarly investigations into the potential of community-based creative initiatives aimed at developing and elaborating sustainable and green tourism practices. The findings of this study also underscore the central role of the intention to embrace sustainable green tourism in the decision-making processes of travellers. Notably, the profile of green tourism consumers and their pro-environmental inclinations often includes a marked preference for locally sourced and processed food products that minimise or eliminate the use of plastics. By further understanding the influential factors, such as prevailing social norms, individual attitudes towards sustainability, and the perceived ability of tourists to undertake eco-friendly actions, it becomes possible to effectively promote a significant shift in the behaviours of individual tourists towards a more sustainable spectrum. Such a behavioural transition can be profoundly beneficial in mitigating the increase of dangerous emissions while simultaneously fostering the growth of sustainable tourism. Ultimately, the environment that shapes the trajectory of green tourism necessitates a strong sense of responsibility from existing agencies and stakeholders within the travel industry.

Conclusion

This research has yielded significant insights into the correlation between green tourism perception characteristics, environmental awareness, and responsible tourism behaviour among visitors in ecotourism locations in East Java, Indonesia. These data robustly indicate that a favourable opinion of green tourism is highly correlated with an elevated degree of environmental awareness. Tourists who see green tourism favourably, acknowledging its focus on nature protection, cultural preservation, and community advantages, are more inclined to possess a deeper comprehension of environmental concerns and exhibit heightened concern for ecological welfare. This aligns with prior evidence indicating that awareness and comprehension of environmental concerns are the primary catalysts for pro-environmental attitudes and behaviours. This research offers empirical data about the significant influence of green tourism perception and environmental knowledge on fostering responsible tourist activity. The mediating role of environmental consciousness underscores the significance of educational programs and awareness campaigns in advancing sustainable tourism. By cultivating a favourable comprehension of green tourism principles and improving environmental literacy among tourists, stakeholders in the tourism sector can effectively advocate for more responsible travel practices, thereby contributing to the enduring sustainability of ecotourism destinations and the conservation of their precious natural and cultural resources. Subsequent studies may investigate these links across many cultural and geographical settings to corroborate and enhance these results.

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