

The Role of Ecotourism Satisfaction in Linking Green Factors to Sustainable Tourist Behavior in the Green Economy Era

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Abstract

This study investigates the determinants of ecotourism satisfaction and their effects on revisit intention and green advocacy within the context of Indonesia's green economy. Drawing upon the Theory of Planned Behavior, the study examines the roles of ecological knowledge, green infrastructure, green marketing communication, green experience, and environmental concern in shaping tourists' satisfaction and subsequent behavioral intentions. A quantitative research design was employed, and data were collected from 355 visitors to Indonesian ecotourism destinations using purposive sampling. The proposed model was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that ecological knowledge, green infrastructure, green marketing communication, and environmental concern significantly enhance ecotourism satisfaction, whereas green experience has no significant effect. Furthermore, ecotourism satisfaction significantly influences revisit intention and green advocacy and mediates most indirect relationships between the ecological antecedents and behavioral outcomes, except those involving green experience. These findings extend the Theory of Planned Behavior by integrating ecological, contextual, and moral determinants into a comprehensive framework for sustainable tourist behavior. The study also provides practical insights for destination managers and policymakers to strengthen sustainable tourism strategies through environmental education, green infrastructure, and effective sustainability communication.

Peran Ecotourism Satisfaction dalam Menghubungkan Green Factors dan Perilaku Wisatawan Berkelanjutan di Era Green Economy

Abstrak

Penelitian ini bertujuan menganalisis faktor-faktor yang memengaruhi kepuasan ekowisata serta dampaknya terhadap niat kunjungan ulang dan advokasi lingkungan dalam konteks penerapan ekonomi hijau di Indonesia. Penelitian menggunakan pendekatan kuantitatif dengan melibatkan 355 wisatawan yang pernah mengunjungi destinasi ekowisata di Indonesia melalui teknik purposive sampling. Data dianalisis menggunakan Partial Least Squares Structural Equation Modeling (PLS-SEM). Hasil penelitian menunjukkan bahwa ecological knowledge, green infrastructure, green marketing communication, dan environmental concern berpengaruh positif dan signifikan terhadap ecotourism satisfaction, sedangkan green experience tidak berpengaruh signifikan. Selain itu, ecotourism satisfaction terbukti berpengaruh positif terhadap revisit intention dan green advocacy serta memediasi sebagian besar hubungan antara faktor-faktor ekologis dengan kedua variabel tersebut, kecuali hubungan yang melibatkan green experience. Temuan ini memperluas penerapan Theory of Planned Behavior dengan mengintegrasikan faktor kognitif, kontekstual, dan moral dalam menjelaskan perilaku wisatawan berkelanjutan. Penelitian ini juga memberikan implikasi praktis bagi pengelola destinasi dan pembuat kebijakan untuk memperkuat strategi pariwisata berkelanjutan melalui peningkatan edukasi lingkungan, pengembangan infrastruktur hijau, dan komunikasi pemasaran yang berorientasi pada keberlanjutan.

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INTRODUCTION

Indonesia's tourism development is no longer solely oriented toward increasing national income but has increasingly embraced the principles of the green economy, which emphasizes resource efficiency, carbon emission reduction, and social well-being while preserving environmental sustainability (Achmad et al., 2023; Nugroho et al., 2023). Within this framework, sustainable tourism has emerged as a strategic instrument capable of integrating economic, social, and ecological values into tourism development. Ecotourism, in particular, occupies a pivotal position because it provides a practical model for implementing green economy principles at the local level by simultaneously promoting environmental conservation and improving community welfare. Nevertheless, the implementation of green economy principles in Indonesia's tourism destinations continues to face significant challenges, including tourists' limited awareness of sustainable practices and the inconsistent application of environmental management across ecotourism destinations (Purwanti et al., 2021; Arifianto et al., 2023). These challenges highlight the need for a comprehensive understanding of the behavioral mechanisms that encourage tourists to support sustainable tourism practices.

To explain tourist behavior in this context, the Theory of Planned Behavior (TPB), developed by Ajzen (1991), provides a well-established and widely adopted theoretical framework in green tourism research. TPB posits that individual behavior is primarily determined by behavioral intention, which is shaped by three inter-related components: attitude, subjective norms, and perceived behavioral control. Within the ecotourism context, attitude refers to tourists' favorable or unfavorable evaluations toward engaging in sustainable tourism behaviors, rather than their satisfaction with a particular destination

or experience. In this study, ecotourism satisfaction is conceptualized as a post-experience evaluative mechanism that reflects tourists' overall assessment of whether the destination experience meets their expectations and aligns with their sustainability values. Therefore, ecotourism satisfaction does not represent a direct substitute for attitude within TPB but functions as an additional evaluative mechanism that helps explain how sustainability-related factors are translated into subsequent behavioral intentions. Subjective norms are formed through tourists' perceptions of social support and environmental communication, whereas perceived behavioral control depends on the extent to which tourists believe they are capable of engaging in environmentally responsible behaviors, facilitated by the availability of green infrastructure and ecological education at tourism destinations. Consequently, TPB offers a robust theoretical foundation for understanding how ecological factors shape tourists' attitudes, satisfaction evaluations, and behavioral intentions toward sustainable practices in Indonesian ecotourism (Bagdja et al., 2024; Sanjaya et al., 2024).

Among these determinants, ecological knowledge plays a fundamental role in shaping tourists' attitudes and environmentally responsible behavior. A higher level of environmental knowledge enhances positive perceptions of environmentally friendly destinations and encourages pro-environmental actions, such as maintaining cleanliness and supporting conservation initiatives (Ren et al., 2021). In Indonesia, ecological knowledge can be strengthened through nature interpretation programs, educational signage, and capacity-building initiatives for tour guides operating in conservation areas. Such initiatives serve as a critical bridge between ecological awareness and the development of positive attitudes that ultimately contribute to tourists' satisfaction with ecotourism destinations (Aswita et al., 2020; Zul-

vianti et al., 2022). However, knowledge alone is insufficient to ensure sustainable behavior, as tourists must also perceive that they have adequate opportunities and resources to act upon their environmental awareness.

In this regard, green infrastructure plays a crucial role in strengthening tourists' perceived behavioral control by shaping their perceptions regarding the availability of resources and opportunities to perform environmentally responsible behaviors. In the TPB framework, perceived behavioral control is an individual-level perception; therefore, contextual factors at the destination level influence this perception by reducing practical barriers and increasing tourists' confidence in their ability to participate in sustainable practices. Environmentally friendly facilities, including effective waste management systems, renewable energy utilization, and interpretive trails, not only enhance visitors' comfort but also provide the necessary conditions that enable tourists to engage more easily in environmentally responsible behavior (Baltaci, 2025). By providing tangible support for sustainable practices, green infrastructure enhances tourists' confidence in their ability to contribute to environmental conservation, thereby reinforcing their participation in the implementation of green economy principles at ecotourism destinations (Yaja et al., 2026). This perspective further suggests that physical infrastructure should be complemented by effective communication strategies capable of fostering broader social support for sustainable tourism.

Beyond the role of physical infrastructure, green marketing communication serves as a critical mechanism for shaping the social norms that influence individual behavior. Marketing messages emphasizing sustainability, environmental conservation, and responsible tourism practices can cultivate tourists' perceptions that environmentally friendly behavior is both socially expected and social-

ly valued (Putri et al., 2024). Within the Indonesian ecotourism context, effective green marketing communication not only strengthens destination image but also enhances tourists' collective awareness of their ecological responsibilities. By reinforcing positive social expectations regarding sustainable tourism, green marketing communication contributes to the development of subjective norms that encourage environmentally responsible behavior (Setiawan et al., 2021; Persada et al., 2023). While communication shapes tourists' social perceptions, meaningful environmental experiences are equally essential for transforming these perceptions into favorable attitudes toward sustainable tourism.

Green experience is closely associated with tourists' attitudes toward environmentally sustainable destinations. Direct interaction with natural environments and participation in conservation activities, such as mangrove planting or plastic waste management programs, generate memorable emotional experiences that enhance tourists' satisfaction and emotional attachment to ecotourism destinations (Sthapit et al., 2023). Previous studies have consistently demonstrated that positive nature-based experiences strengthen favorable attitudes toward sustainable behavior while simultaneously increasing tourists' loyalty to green destinations (Zhang et al., 2024; Naparin, 2025). These findings suggest that experiential engagement represents a key mechanism through which sustainable tourism practices create long-term relationships between tourists and environmentally responsible destinations. Nevertheless, the effectiveness of such experiences is likely to depend on tourists' underlying environmental values and personal concerns regarding ecological sustainability.

Another important determinant is environmental concern, which reflects individuals' moral values and beliefs regarding environmental issues. Tourists

with higher levels of environmental concern are generally more likely to develop positive attitudes and stronger behavioral intentions toward sustainable tourism activities (Solekah et al., 2023). Within the TPB framework, environmental concern reinforces both attitudes and subjective norms because environmentally conscious individuals tend to internalize social values that encourage pro-environmental behavior (Hansen et al., 2024). Consequently, environmental concern provides a fundamental psychological foundation for encouraging tourists to actively participate in green economy initiatives and environmentally responsible tourism practices. As these psychological factors strengthen tourists' attitudes and intentions, their influence is expected to extend beyond satisfaction toward subsequent behavioral outcomes (Thuy et al., 2025).

From a behavioral perspective, sustainable tourism outcomes are reflected not only in tourists' satisfaction but also in their intentions to revisit destinations and engage in green advocacy. Green advocacy represents one of the highest levels of pro-environmental behavior, whereby tourists actively recommend, promote, and educate others about the importance of sustainable tourism practices (Bajrami et al., 2025). Tourists who are satisfied with environmentally responsible destinations are more likely to become advocates who disseminate positive environmental messages, encourage sustainable lifestyles, and influence broader social behavioral change (Nguyen et al., 2025). These post-visit behavioral outcomes indicate that tourist satisfaction should be viewed not merely as an end result but also as a catalyst for fostering long-term sustainability through repeat visitation and voluntary advocacy. Despite these theoretical arguments, the interrelationships among these ecological determinants and their behavioral consequences remain insufficiently understood, particularly within the Indonesian ecotourism context.

Despite the growing body of literature on sustainable tourism, important research gaps remain regarding how multiple ecological factors jointly shape tourists' attitudes, behavioral intentions, and pro-environmental behaviors within ecotourism settings. Previous studies have predominantly examined the direct effects of ecological knowledge, green infrastructure, green marketing communication, green experience, and environmental concern on tourist satisfaction as isolated determinants, with limited attention to the underlying psychological mechanisms that explain how these factors ultimately influence revisit intention and green advocacy (Ren et al., 2021; Conti et al., 2023; Hui et al., 2023). Consequently, the dynamic interplay among these ecological antecedents and their behavioral consequences has yet to be comprehensively understood, particularly within an integrated behavioral framework (Naparín, 2025). This limitation underscores the need for a more holistic theoretical perspective capable of explaining tourists' sustainable behavioral processes.

In addition to this empirical limitation, existing studies have largely been conducted in developed countries characterized by relatively advanced environmental infrastructure, higher levels of environmental awareness, and stronger institutional support for sustainable tourism (Kia, 2021; Tuwo et al., 2021). These contextual conditions differ considerably from those in Indonesia, where the implementation of ecotourism sustainability is still influenced by variations in destination management capacity, environmental governance, ecological education, and community involvement. Previous studies in Indonesia have highlighted that ecotourism development remains dependent on local institutional capacity and stakeholder participation, particularly in ensuring that conservation objectives are aligned with tourism activities and community welfare (Kia, 2021; Tuwo et al., 2021).

Furthermore, differences in environmental management practices, ecological education, and public awareness continue to create challenges in implementing green economy principles across Indonesian ecotourism destinations (Anggraeni et al., 2023). As a result, findings derived from developed-country settings cannot be readily generalized to Indonesia's unique socio-ecological environment, where sustainability implementation is shaped by different institutional, social, and environmental conditions (Praptiwi et al., 2021). Addressing this contextual gap is therefore essential for generating evidence that can better inform tourism policies and sustainable destination management in emerging economies.

From a theoretical perspective, previous research has primarily relied on the Theory of Reasoned Action (TRA) or the Value-Belief-Norm (VBN) Theory to explain environmentally responsible tourist behavior, while relatively limited attention has been devoted to the comprehensive application of the Theory of Planned Behavior (TPB) (Han, 2021; J. Li et al., 2024; Alashiq & Aljuhmani, 2025). Although TPB provides a strong foundation for explaining behavioral intention through attitude, subjective norms, and perceived behavioral control, its application in sustainable tourism contexts has predominantly focused on predicting behavioral intentions rather than explaining the psychological mechanism through which sustainability-related factors are transformed into behavioral outcomes. In particular, limited attention has been given to how tourists' evaluations of sustainable destination experiences contribute to the translation of ecological, contextual, and moral factors into subsequent behaviors. TPB offers a more integrated theoretical lens by simultaneously accounting for individual psychological factors and contextual influences that determine environmentally responsible behavior (Torabi et al., 2025). Therefore, extending TPB

within the context of Indonesian ecotourism provides an opportunity to enrich the theoretical understanding of sustainable tourist behavior by incorporating the evaluative process that links sustainability antecedents with behavioral consequences.

The primary novelty of this study lies in developing a TPB-based explanatory mechanism that clarifies how sustainability-related antecedents are converted into sustainable tourist behaviors through ecotourism satisfaction as an evaluative process. Rather than merely incorporating additional constructs into the TPB framework, this study explains the pathway through which cognitive, contextual, affective, and moral factors contribute to behavioral outcomes in ecotourism settings. Unlike previous studies that primarily conceptualize green infrastructure as a physical attribute of tourism destinations (Jiang et al., 2022; Rao et al., 2022; Hanafiah et al., 2025), this study positions green infrastructure as a contextual factor that strengthens tourists' perceived behavioral control by facilitating environmentally responsible actions. Furthermore, green advocacy is conceptualized as an advanced form of discretionary pro-environmental behavior that extends beyond revisit intention, reflecting tourists' voluntary willingness to recommend, promote, and advocate environmentally responsible tourism practices following satisfying destination experiences (Madhyamapurush, 2026). By integrating cognitive (ecological knowledge), contextual (green infrastructure and green marketing communication), affective (green experience and tourist satisfaction), and moral (environmental concern) dimensions within the TPB framework, this study does not alter the fundamental structure of TPB but extends its explanatory mechanism. Specifically, the proposed framework highlights ecotourism satisfaction as an evaluative mechanism that explains how tourists interpret sustainability-related experiences before forming behavioral intentions and engaging

in green advocacy. Thus, the integration within TPB contributes to theoretical development by explaining the process linking antecedent conditions, psychological evaluation, and sustainable tourist behavior in ecotourism destinations.

Accordingly, this study aims to examine the effects of ecological knowledge, green infrastructure, green marketing communication, green experience, and environmental concern on ecotourism satisfaction, as well as to investigate the subsequent influence of tourist satisfaction on revisit intention and green advocacy within the context of Indonesian ecotourism. By addressing the identified empirical, contextual, and theoretical gaps, this study seeks to contribute to the advancement of sustainable tourism literature while providing practical insights for policymakers and destination managers in supporting Indonesia's transition toward a green economy.

Hypothesis Development

The Relationship between Ecological Knowledge and Ecotourism Satisfaction

Ecological knowledge refers to an individual's understanding of environmental issues, ecological processes, and sustainable practices that support environmental conservation. Within the context of ecotourism, ecological knowledge enables tourists to recognize the environmental value of tourism destinations and to better appreciate conservation initiatives implemented by destination managers (Ren et al., 2021). From the perspective of the Theory of Planned Behavior (TPB), greater ecological knowledge strengthens positive attitudes toward environmentally responsible tourism by enhancing tourists' awareness of the environmental consequences of their actions (Araújo et al., 2025). This enhanced awareness enables tourists to develop more informed evaluations of sustainable destination attributes because they are better able to recognize the environmental value and conservation

efforts implemented by tourism providers. Consequently, ecological knowledge may influence ecotourism satisfaction by improving the perceived alignment between tourists' environmental expectations and the sustainability practices experienced at the destination. As tourists become more informed about sustainability principles, they are more likely to perceive ecotourism experiences as meaningful and consistent with their personal environmental values.

Tourists possessing higher levels of ecological knowledge are expected to evaluate ecotourism destinations more favorably because their understanding of environmental issues allows them to better interpret and appreciate conservation initiatives undertaken by destination managers. This cognitive understanding enhances the perceived value of the destination experience, which subsequently contributes to higher satisfaction with the destination (Alashiq & Aljuhmami, 2025). Moreover, knowledgeable tourists are more likely to actively engage in environmentally responsible activities, thereby reinforcing the congruence between their environmental beliefs and their actual tourism experiences (Nekmahmud et al., 2022). Consequently, ecological knowledge serves not only as a cognitive antecedent of environmentally responsible attitudes but also as an important determinant shaping tourists' satisfaction evaluation in ecotourism contexts.

H1: Ecological knowledge significantly influences ecotourism satisfaction.

The Relationship between Green Infrastructure and Ecotourism Satisfaction

Green infrastructure refers to environmentally sustainable facilities and physical amenities that support ecological conservation while enhancing tourists' experiences at ecotourism destinations. Such infrastructure includes renewable energy systems, effective waste management facilities, eco-friendly transportation, wa-

ter conservation technologies, and environmentally designed visitor amenities (Baloch et al., 2023). Within the Theory of Planned Behavior (TPB), green infrastructure contributes to perceived behavioral control by providing tourists with the necessary resources and opportunities to engage in environmentally responsible behaviors. From the TPB perspective, destination-level facilities influence individual-level perceived behavioral control because accessible and supportive infrastructure reduces perceived barriers and increases tourists' confidence in performing sustainable practices. When tourists perceive that environmentally responsible actions can be performed easily due to the availability of sustainable facilities, they are more likely to develop positive evaluations of their destination experience. When sustainable facilities are accessible and convenient, tourists are more likely to perceive that participating in pro-environmental practices requires less effort, thereby improving their overall tourism experience (Ibnou-Laaroussi et al., 2020).

The availability of well-developed green infrastructure also demonstrates a destination's commitment to environmental sustainability, which shapes tourists' perceptions of destination quality and sustainability performance. These perceptions create a cognitive evaluation process in which tourists compare their expectations regarding sustainable tourism with the actual environmental practices implemented by the destination. When the destination provides clean, environmentally friendly, and well-maintained facilities, tourists are more likely to perceive consistency between their sustainability values and the destination's practices, resulting in higher levels of satisfaction. Furthermore, supportive infrastructure facilitates tourists' participation in environmentally responsible activities, creating more meaningful tourism experiences (Luongo et al., 2024; Jieyao et al., 2025). Therefore,

green infrastructure functions not only as a physical attribute of the destination but also as a contextual mechanism that enhances perceived behavioral control and shapes tourists' satisfaction evaluations within ecotourism contexts.

H2: Green infrastructure significantly influences ecotourism satisfaction.

The Relationship between Green Marketing Communication and Ecotourism Satisfaction

Green marketing communication refers to the dissemination of environmental information and sustainability-oriented messages that communicate a destination's commitment to ecological conservation and responsible tourism practices. Such communication includes promotional campaigns, environmental education, eco-labels, digital media content, and on-site informational materials that emphasize sustainable values (Tölkes, 2018; Chi, 2021). Within the Theory of Planned Behavior (TPB), green marketing communication contributes to the formation of subjective norms by shaping tourists' perceptions regarding socially expected and environmentally responsible behaviors (Patwary et al., 2022). Through sustainability-oriented messages, destinations communicate environmental values and establish social expectations regarding responsible tourism practices. These perceived social expectations influence how tourists evaluate the importance and credibility of sustainability initiatives implemented by destinations. When sustainability messages are perceived as credible, consistent, and supported by actual environmental practices, tourists are more likely to develop favorable perceptions of the destination's sustainability commitment and evaluate their tourism experience more positively.

Effective green marketing communication not only increases tourists' awareness of environmental initiatives but

also strengthens their perception that the destination's sustainability efforts are authentic and aligned with socially valued environmental behaviors. This alignment between communicated sustainability values and actual destination performance reduces uncertainty regarding environmental claims and enhances tourists' confidence in the destination. Consequently, tourists are more likely to experience trust, appreciation, and positive evaluations of the destination, which ultimately contribute to higher ecotourism satisfaction (Ashraf et al., 2020; Liu et al., 2026). Therefore, green marketing communication is expected to positively influence ecotourism satisfaction by shaping favorable perceptions and reinforcing positive tourism experiences.

H3: Green marketing communication significantly influences ecotourism satisfaction.

The Relationship between Green Experience and Ecotourism Satisfaction

Green experience refers to tourists' direct interactions with environmentally sustainable practices and natural environments during their visits to ecotourism destinations. These experiences may include participating in conservation activities, observing biodiversity, engaging in environmental education programs, or utilizing eco-friendly facilities that promote sustainable tourism (El Moslem Badr, 2022; Torsney et al., 2025). Within the Theory of Planned Behavior (TPB), meaningful green experiences strengthen positive attitudes toward environmentally responsible tourism by influencing tourists' evaluations of sustainable behaviors and increasing their appreciation of environmental conservation. Through direct interaction with natural environments and participation in conservation activities, tourists are able to evaluate the value and meaningfulness of sustainable tourism practices based on their actual experien-

ces. Such experiences create memorable and authentic encounters that enhance the perceived value of ecotourism destinations (Castellanos-Verdugo et al., 2016).

Positive green experiences are expected to increase tourists' satisfaction because they provide experiential evidence that the destination's sustainability practices are consistent with tourists' environmental expectations and personal values. In this context, green experience functions as an experiential antecedent that shapes tourists' attitudes toward sustainable destinations, while ecotourism satisfaction represents their subsequent evaluation of the overall tourism experience. When tourists actively engage with nature and perceive that destinations genuinely implement sustainable practices, they are more likely to develop favorable evaluations of their travel experiences. Furthermore, immersive environmental experiences foster emotional attachment and strengthen the alignment between tourists' environmental values and destination attributes, resulting in greater satisfaction (Xiaoqin & Zhanhong, 2025). Therefore, green experience represents an important affective determinant that contributes to ecotourism satisfaction by enriching both the emotional and experiential dimensions of sustainable tourism.

H4: Green experience significantly influences ecotourism satisfaction.

The Relationship between Environmental Concern and Ecotourism Satisfaction

Environmental concern refers to an individual's awareness of environmental issues and the extent to which they are committed to protecting natural resources through responsible behavior. It reflects personal values, moral obligations, and a sense of responsibility toward environmental sustainability (Dong et al., 2024; Amin & Munir, 2026). Within the Theory of Planned Behavior (TPB), environmental concern represents an important

psychological and moral antecedent that strengthens tourists' favorable attitudes toward environmentally responsible tourism behaviors by increasing their awareness of environmental consequences and their motivation to support sustainable practices. Tourists with strong environmental concern are therefore more likely to develop positive evaluations toward destinations that demonstrate genuine commitments to ecological conservation and sustainable tourism development. In this sense, environmental concern influences not only behavioral motivation but also how tourists interpret and evaluate sustainability-related attributes of ecotourism destinations.

When ecotourism destinations implement environmental initiatives that align with tourists' environmental values, visitors are more likely to perceive their experiences as meaningful and personally rewarding. This alignment between tourists' environmental beliefs and destination practices creates a positive evaluation process in which tourists perceive greater consistency between their expectations and the actual sustainability performance of the destination, leading to higher levels of satisfaction. Furthermore, environmentally concerned tourists tend to value conservation efforts beyond their recreational benefits, resulting in stronger emotional connections with sustainable destinations (Clark et al., 2019; Rao et al., 2022). Consequently, environmental concern serves as an important moral antecedent that positively influences ecotourism satisfaction by strengthening the alignment between tourists' environmental values and their destination experiences.

H5: Environmental concern significantly influences ecotourism satisfaction.

The Relationship between Ecotourism Satisfaction, Revisit Intention, and Green Advocacy

Ecotourism satisfaction reflects tourists' overall evaluation of their expe-

riences at environmentally sustainable destinations after comparing their expectations with the actual performance of the destination (Quynh et al., 2021). Within the Theory of Planned Behavior (TPB), satisfaction is not positioned as a direct component of the original framework but as an evaluative mechanism that reflects tourists' post-experience assessment of sustainable destination performance. This evaluation can strengthen favorable attitudes toward sustainable tourism practices because tourists who perceive that a destination successfully delivers both environmental and recreational value are more likely to develop positive behavioral intentions. Satisfied tourists are therefore more likely to revisit destinations that consistently provide meaningful ecological experiences, as satisfaction reinforces their confidence in the destination's ability to meet their sustainability expectations (Luján et al., 2025). Consequently, ecotourism satisfaction serves as an important mechanism that translates positive destination evaluations into revisit intention.

Beyond encouraging repeat visits, ecotourism satisfaction may also foster green advocacy, a voluntary pro-environmental behavior in which tourists actively recommend environmentally responsible destinations, share positive sustainability experiences, and encourage others to adopt responsible tourism practices (Balaskas et al., 2025). From the TPB perspective, positive evaluations derived from satisfying sustainable tourism experiences can strengthen tourists' willingness to engage in behaviors that support environmental values beyond their personal consumption experience. Tourists who experience high levels of satisfaction are more likely to become advocates because their positive evaluations enhance emotional attachment, reinforce commitment to sustainability, and motivate voluntary communication of sustainable tourism practices. Therefore, ecotourism satisfaction functions not only as an evaluative outcome but also as

a behavioral catalyst that promotes long-term destination loyalty and voluntary environmental advocacy.

H6: Ecotourism satisfaction significantly influences revisit intention.

H7: Ecotourism satisfaction significantly influences green advocacy.

The Mediating Role of Ecotourism Satisfaction

Within the Theory of Planned Behavior (TPB), behavioral outcomes are not solely determined by cognitive, contextual, and moral factors but also by individuals' evaluations of their experiences. In the context of ecotourism, ecological knowledge, green infrastructure, green marketing communication, green experience, green experi-

ence, and environmental concern represent antecedent factors that shape tourists' perceptions and evaluations of environmentally responsible destinations. These factors influence how tourists interpret sustainability practices and assess whether the destination experience is consistent with their environmental expectations and personal values, resulting in higher levels of ecotourism satisfaction (Yarimoglu & Gunay, 2020; Chang et al., 2025; Paul & Roy, 2025). Therefore, ecotourism satisfaction functions as an evaluative mechanism that translates sustainability-related antecedents into subsequent behavioral intentions and voluntary pro-environmental behaviors.

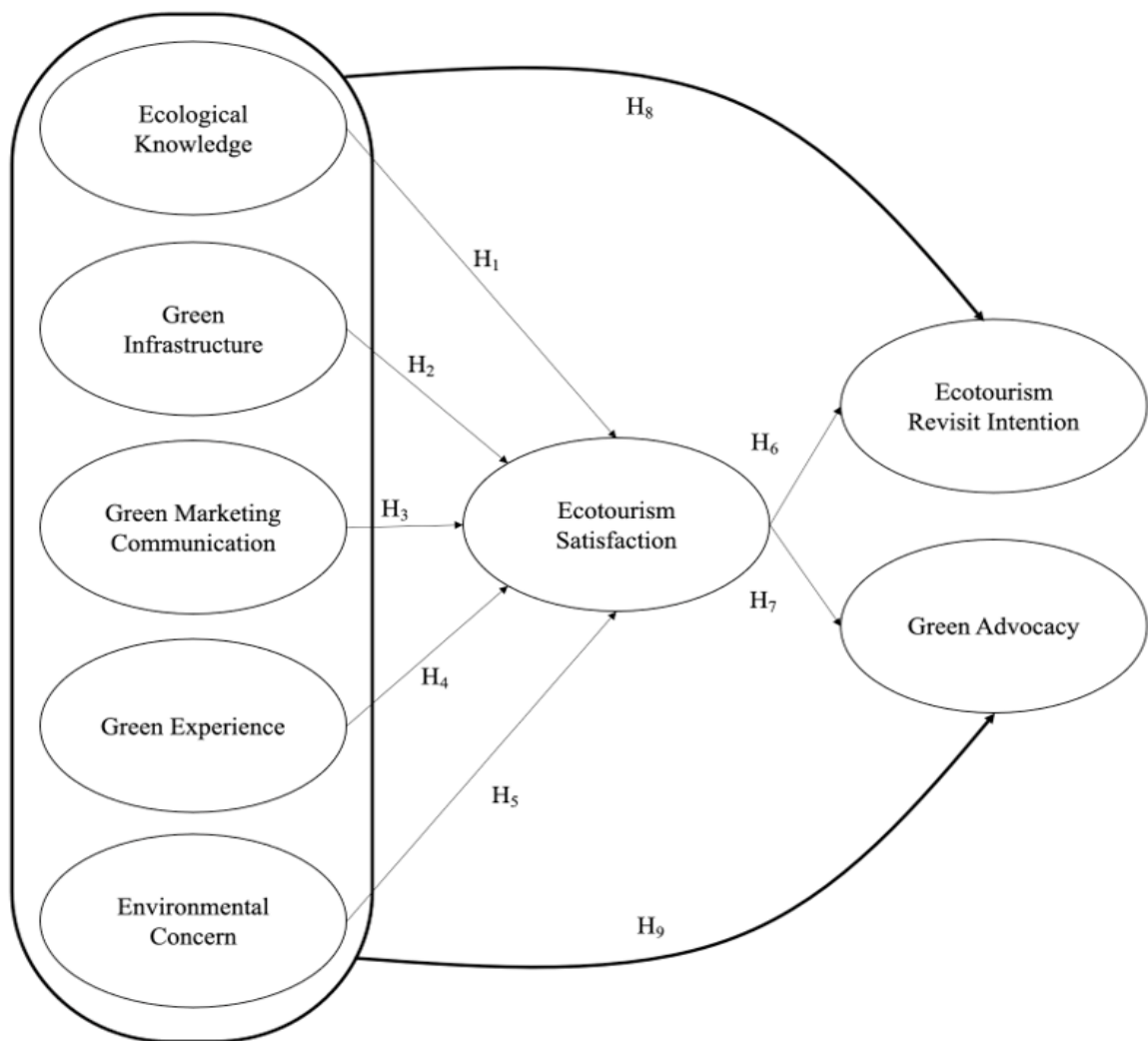


Figure 1. Research Model

Source: Authors (2026)

As a mediating construct, ecotourism satisfaction explains the psychological process through which ecological and sustainability-related factors influence tourists' behavioral outcomes. Within the TPB framework, satisfaction does not replace the core components of attitude, subjective norms, and perceived behavioral control; rather, it represents a post-experience evaluation that strengthens favorable behavioral evaluations and facilitates the formation of sustainable behavioral intentions. Tourists who are satisfied with their ecotourism experiences are more likely to revisit sustainable destinations and voluntarily advocate environmentally responsible tourism by sharing positive experiences and encouraging others to engage in sustainable travel practices (Huang & Liu, 2017; Hasan et al., 2020; Balaskas et al., 2025). Therefore, ecotourism satisfaction functions as a central mechanism linking ecological antecedents with long-term behavioral consequences, highlighting its critical role in promoting sustainable tourism and supporting the implementation of green economy principles.

H8: Ecotourism satisfaction mediates the relationships between ecological knowledge, green infrastructure, green marketing communication, green experience, environmental concern, and revisit intention.

H9: Ecotourism satisfaction mediates the relationships between ecological knowledge, green infrastructure, green marketing communication, green experience, environmental concern, and green advocacy.

METHOD

This study employed a quantitative research approach to examine the relationships among ecological knowledge, green infrastructure, green marketing communication, green experience, environmental concern, ecotourism satisfaction, revisit intention, and green advocacy.

Data were collected through a structured online questionnaire using a five-point Likert scale from visitors of Indonesian ecotourism destinations. The data collection was conducted from May 2026 until July 2026, involving respondents who had visited ecotourism destinations in Indonesia. The collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4. PLS-SEM was selected because it is appropriate for testing complex research models involving multiple latent constructs and mediation effects while accommodating data that may not satisfy multivariate normality assumptions.

The study adopted a purposive sampling technique by selecting respondents who met specific criteria relevant to the research objectives. Respondents were required to have previously visited ecotourism destinations in Indonesia and have sufficient experience to evaluate environmental practices implemented by tourism destinations. To ensure that respondents could provide informed assessments regarding sustainability-related attributes, only individuals who had direct experience with ecotourism destinations and were aware of environmental practices during their visits were included in the study. A total of 355 valid responses were obtained and included in the analysis. The adequacy of the sample size was assessed based on the 10-times rule recommended for PLS-SEM analysis. The endogenous construct receiving the largest number of structural paths in this model is ecotourism satisfaction, which is predicted by five antecedent constructs: ecological knowledge, green infrastructure, green marketing communication, green experience, and environmental concern. Accordingly, the collected sample exceeds the minimum threshold and is considered adequate for PLS-SEM analysis, ensuring sufficient statistical power and reliable parameter estimation (Hair et al., 2014).

Data analysis was conducted using

SmartPLS 4 following the two-stage PLS-SEM procedure. In the first stage, the measurement model was assessed through indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. Indicator reliability was evaluated using outer loadings, internal consistency reliability was assessed through Cronbach's alpha and composite reliability, convergent validity was examined using average variance extracted (AVE), and discriminant validity was evaluated using the heterotrait-monotrait ratio (HTMT). In the second stage, the structural model was evaluated through the coefficient of determination (R^2), path coefficients, and the significance of direct and indirect effects using bootstrapping with 5,000 resamples.

RESULT AND DISCUSSION

Table 1 presents the demographic characteristics of the respondents. Female respondents constituted the majority of the sample (77.7%), while males accounted for 22.3%. Most respondents

were aged 18–22 years (62.8%), followed by those aged 23–27 years (29.0%). Regarding educational attainment, the majority held a bachelor's degree (69.0%), whereas 27.6% had completed senior high school. More than half of the respondents (54.6%) reported an annual tourism budget of IDR 1–5 million, while 44.2% had a monthly income below IDR 3 million. These characteristics indicate that the sample was largely represented by young adult tourists with relatively moderate tourism expenditure capacity, which may reflect the participation pattern of younger visitors who are increasingly engaged with nature-based and sustainable tourism activities. However, the concentration of respondents within the 18–27 age group and lower-income categories should be considered when interpreting the findings, as tourists from different age groups and socioeconomic backgrounds may demonstrate different perceptions and behavioral responses toward sustainable tourism practices. Therefore, the generalizability of the findings should be interpreted within the characteristics of the current sample.

Table 1. Demographic Characteristics of Respondents

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Male	79	22.3
	Female	276	77.7
Age	18–22 years	223	62.8
	23–27 years	103	29.0
	28–32 years	8	2.3
	33–39 years	15	4.2
	Above 40 years	6	1.7
Education Level	Senior High School or Equivalent	98	27.6
	Bachelor's Degree	245	69.0
	Master's Degree	9	2.5
	Doctoral Degree	3	0.8
Annual Tourism Budget	< IDR 1 Million	88	24.8
	IDR 1–5 Million	194	54.6
	IDR 6–10 Million	59	16.6
	IDR 11–20 Million	7	2.0
	> IDR 20 Million	7	2.0

Monthly Income	< IDR 3 Million	157	44.2
	IDR 3–5 Million	105	29.6
	IDR 5–10 Million	63	17.7
	IDR 10–20 Million	25	7.0
	> IDR 20 Million	5	1.4

Source: Processed Data (2026)

PLS-SEM measurement model is illustrated in Figure 2, which presents the relationships between latent constructs and their corresponding indicators. The values displayed on the measurement paths represent the standardized outer loadings, all of which exceed the recommended threshold of 0.50, indicating that the indicators adequately reflect their respective constructs. The values shown within each

latent construct represent the Average Variance Extracted (AVE), ranging from 0.690 to 0.851, thereby confirming satisfactory convergent validity. Overall, the measurement model demonstrates strong indicator reliability and construct validity, supporting the adequacy of the measurement model for subsequent structural model evaluation and hypothesis testing.

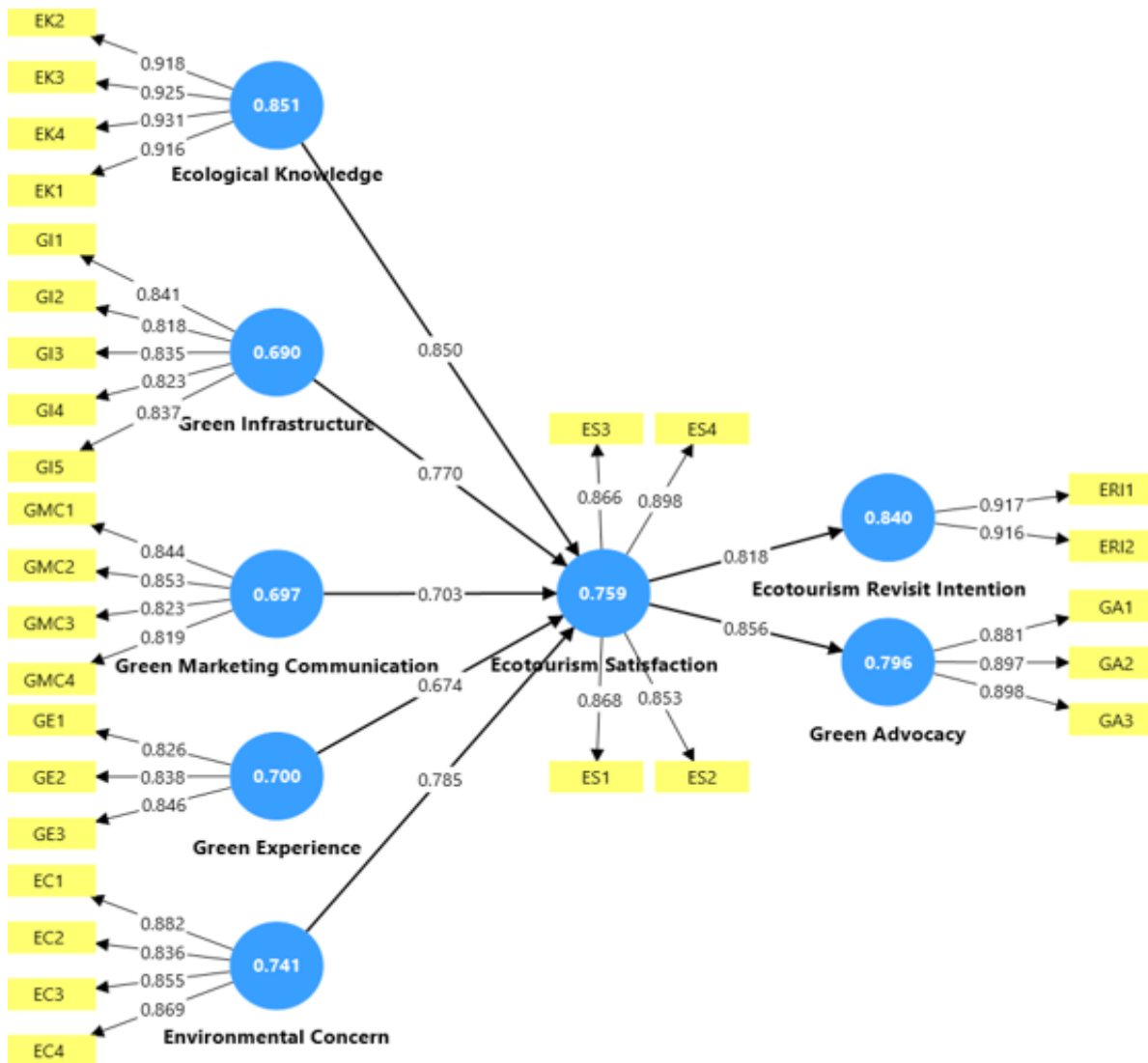


Figure 2. Outer Loading Value

Furthermore, Table 2 presents the results of the measurement model assessment, including multicollinearity, indicator reliability, internal consistency reliability, and convergent validity. The variance inflation factor (VIF) values range from 1.593 to 4.189, all below the recommended threshold of 5.0, indicating that mul-

ticollinearity is not a concern. Furthermore, all indicator outer loadings exceed the minimum criterion of 0.50, ranging from 0.818 to 0.931, demonstrating satisfactory indicator reliability. These findings confirm that each measurement item adequately represents its corresponding latent construct.

Table 2. Results of Validity, Reliability, and Multicollinearity Test

Measurement Indicator	VIF ≤ 5.0	Outer Loadings ≥ 0.50	Cronbach's Alpha ≥ 0.70	Composite Reliability ≥ 0.70	AVE ≥ 0.50
Ecological Knowledge (Sobral et al., 2017; Hadi, 2023)					
I am aware of global warming.	3.638	0.916	0.942	0.958	0.851
I understand the environmental impacts of green consumption.	3.684	0.918			
I understand the relationship between humans and ecosystems.	4.001	0.925			
I recognize that tourism is highly dependent on the preservation of the natural environment.	4.189	0.931			
Green Infrastructure (Bezuhla et al., 2022; Kharira & Koswara, 2022)					
The tourism destination provides adequate pedestrian walkways or nature trails.	2.238	0.841	0.888	0.918	0.690
The destination has an effective waste management system.	2.143	0.818			
Clean water and sanitation facilities are adequately provided.	2.187	0.835			
Environmental or conservation information is available at the destination.	2.126	0.823			
The destination's infrastructure supports environmentally friendly tourism activities.	2.214	0.837			
Green Marketing Communication (Correia et al., 2023)					
The destination's advertisements convey environmentally friendly messages.	2.091	0.844	0.855	0.902	0.697
The destination's brand reflects a commitment to environmental sustainability.	2.183	0.853			
The information provided enhances my understanding of the importance of environmental conservation.	1.872	0.823			
The destination's promotional activities encourage environmentally responsible behavior.	1.788	0.819			

Measurement Indicator	VIF ≤ 5.0	Outer Loadings ≥ 0.50	Cronbach's Alpha ≥ 0.70	Composite Reliability ≥ 0.70	AVE ≥ 0.50
Green Experience (Wu & Cheng, 2017; Huang & Liu, 2017)					
The destination provides an environmentally friendly tourism experience.	1.650	0.826	0.786	0.875	0.700
I feel that the destination offers an enjoyable experience without harming the environment.	1.593	0.838			
My experience at the destination has encouraged me to become more environmentally conscious.	1.693	0.846			
Environmental Concern (Wu & Cheng, 2017; Huang & Liu, 2017)					
I believe that the balance of nature is very fragile.	2.530	0.882	0.883	0.920	0.741
I believe that current environmental problems are highly complex.	2.040	0.836			
I am concerned about ongoing environmental degradation.	2.233	0.855			
I believe it is important to maintain a balance between humans and nature.	2.415	0.869			
Ecotourism Satisfaction (Wu & Cheng, 2017)					
My tourism experience met my expectations.	2.402	0.868	0.894	0.927	0.759
I am satisfied with my visit to this destination.	2.226	0.853			
I believe that visiting this destination was the right decision.	2.384	0.866			
I believe that this destination contributes to environmental sustainability.	2.885	0.898			
Ecotourism Revisit Intention (Huang & Liu, 2017)					
I intend to revisit this destination in the future.	1.859	0.917	0.809	0.913	0.840
I am willing to revisit this ecotourism destination.	1.859	0.916			
Green Advocacy (Wu & Cheng, 2017)					
I will recommend this destination to others.	2.159	0.881	0.872	0.921	0.796
I will share positive comments about this destination.	2.408	0.897			
I am willing to use environmentally friendly products and services offered at this destination.	2.434	0.898			

Source: Processed Data (2026)

The reliability and convergent validity results further support the adequacy of the measurement model. Cronbach's alpha values range from 0.786 to 0.942, while composite reliability values range from 0.875 to 0.958, both exceeding the recommended threshold of 0.70 and indicating strong internal consistency. In addition, the average variance extracted (AVE)

values range from 0.690 to 0.851, surpassing the minimum requirement of 0.50 and confirming satisfactory convergent validity. Overall, these results demonstrate that all constructs exhibit acceptable reliability and validity, indicating that the measurement model is robust and suitable for subsequent structural model analysis.

Table 3. Results of Discriminant Validity (HTMT Ratio Matrix)

Indicator	EK	ERI	ES	EC	GA	GE	GI	GMC
EK								
ERI	0.896							
ES	0.826	0.861						
EC	0.860	0.880	0.883					
GA	0.891	0.855	0.869	0.862				
GE	0.843	0.803	0.802	0.747	0.811			
GI	0.855	0.841	0.864	0.743	0.857	0.742		
GMC	0.799	0.764	0.803	0.684	0.768	0.676	0.734	

Source: Processed Data (2026)

The results of the discriminant validity assessment using the Heterotrait–Monotrait Ratio (HTMT) can be seen in Table 3. All HTMT values range from 0.676 to 0.896, remaining below the recommended threshold of 0.90, thereby indicating satisfactory discriminant validity among the latent constructs. These results demonstrate that each construct is empiri-

cally distinct and captures a unique aspect of the proposed research model without substantial overlap with other constructs. Consequently, the measurement model satisfies the discriminant validity criterion, confirming that the constructs are conceptually and statistically distinguishable and are appropriate for subsequent structural model assessment and hypothesis testing.

Table 4. R-Square Result

Variable	R-square	R-square adjusted
Ecotourism Revisit Intention	0.668	0.667
Ecotourism Satisfaction	0.791	0.788
Green Advocacy	0.732	0.732

Source: Processed Data (2026)

Moreover, Table 4 presents the coefficient of determination (R^2) values for the endogenous constructs. Ecotourism satisfaction achieved the highest explanatory power ($R^2 = 0.791$; Adjusted $R^2 = 0.788$), indicating that ecological knowledge, green infrastructure, green marketing communication, green experience, and environmental concern jointly explain 79.1% of its variance. Similarly, in Figure 3, the model explains 73.2% of the variance in green advocacy ($R^2 = 0.732$) and

66.8% of the variance in ecotourism revisit intention ($R^2 = 0.668$). The adjusted R^2 values are very close to the corresponding R^2 values, suggesting good model stability and minimal estimation bias. Overall, these findings indicate that the proposed structural model demonstrates substantial explanatory power and effectively predicts the endogenous constructs.

The f-square (f^2) analysis in Table 5 was conducted to assess the effect size of each exogenous construct on the

endogenous variables. The results indicate that ecotourism satisfaction has a very large effect on both revisit intention ($f^2 = 2.015$) and green advocacy ($f^2 = 2.735$), demonstrating its critical role in explaining tourists' sustainable behavioral outcomes. Among the antecedents of ecotourism satisfaction, environmental concern ($f^2 = 0.125$) and ecological knowledge ($f^2 = 0.112$) show small-to-moderate effect sizes, while green experience ($f^2 =$

0.077), green infrastructure ($f^2 = 0.075$), and green marketing communication ($f^2 = 0.042$) demonstrate relatively small effects. These findings suggest that although multiple sustainability-related factors contribute to ecotourism satisfaction, tourists' internal environmental values and knowledge provide stronger explanatory contributions compared with destination-based and communication-related factors.

Table 5. f-Square Result

Variable	f-square
Ecological Knowledge → Ecotourism Satisfaction	0.112
Ecotourism Satisfaction → Ecotourism Revisit Intention	2.015
Ecotourism Satisfaction → Green Advocacy	2.735
Environmental Concern → Ecotourism Satisfaction	0.125
Green Experience → Ecotourism Satisfaction	0.077
Green Infrastructure → Ecotourism Satisfaction	0.075
Green Marketing Communication → Ecotourism Satisfaction	0.042

Source: Processed Data (2026)

The model fit assessment shows that the Standardized Root Mean Square Residual (SRMR) values are 0.039 for the saturated model and 0.051 for the estimated model. Both values are below the recommended threshold of 0.08, indicating that the proposed model demonstrates a good fit and that the discrepancy between the observed and predicted correlations is relatively low.

The predictive relevance of the structural model was assessed using the Q-square (Q^2) value calculated based on the coefficient of determination (R^2) values of the endogenous constructs ($Q^2 = 1 - (1 - R_1^2)(1 - R_2^2)(1 - R_3^2)$). The results show that the model produces a Q^2 value of 0.981, which is greater than zero, indicating strong predictive relevance. This finding suggests that the proposed model has substantial predictive capability in explaining ecotourism satisfaction, revisit intention, and green advocacy. Therefore, the integrated framework demonstrates a strong ability to predict tourists' sustainable behavioral outcomes in the context of eco-

tourism.

Meanwhile, the hypothesis results in Table 6 indicate that ecological knowledge has a positive and significant effect on ecotourism satisfaction ($\beta = 0.342$, $t = 5.765$, $p < 0.001$). This finding suggests that tourists with greater ecological knowledge are more likely to appreciate the environmental values and conservation efforts implemented at ecotourism destinations, leading to higher levels of satisfaction (Ren et al., 2021; Sahabuddin et al., 2024). From the perspective of the Theory of Planned Behavior (TPB), ecological knowledge strengthens favorable attitudes toward sustainable tourism by increasing tourists' understanding of the environmental consequences of their actions. Consequently, well-informed tourists tend to evaluate their tourism experiences more positively because the destination aligns with their environmental values and sustainability expectations.

The findings further reveal that H2 is supported, indicating that green infrastructure has a positive and significant ef-

fect on ecotourism satisfaction ($\beta=0.206$, $t=4.127$, $p<0.001$). This result suggests that environmentally friendly facilities enhance tourists' perceptions of comfort, convenience, and environmental quality, thereby improving their overall satisfaction (Huang et al., 2024; Paul & Roy, 2025).

Within the TPB framework, green infrastructure strengthens perceived behavioral control by enabling tourists to engage more easily in environmentally responsible activities, resulting in more positive evaluations of their ecotourism experiences.

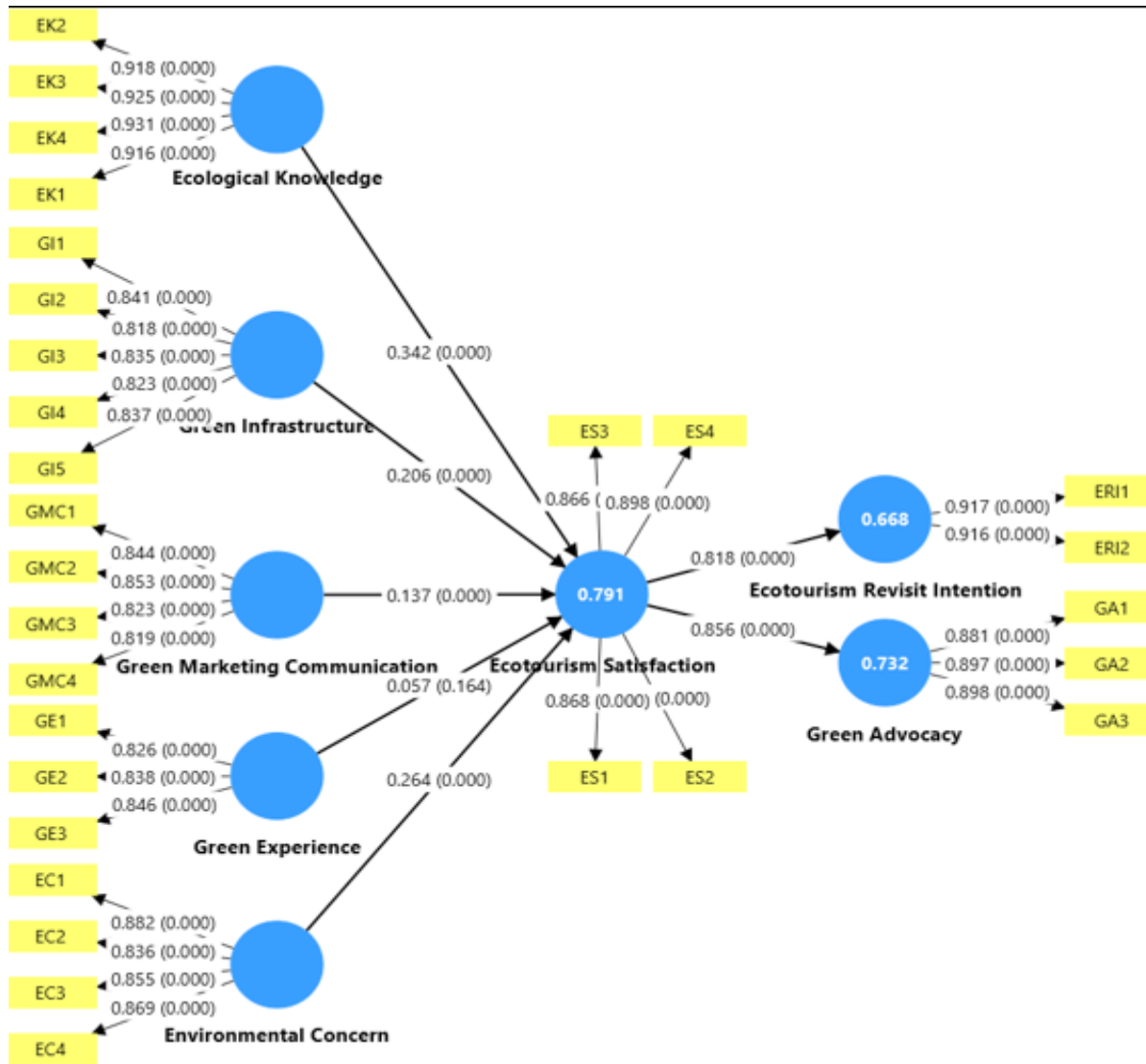


Figure 3. Bootstrapping Result

Source: Processed Data (2026)

Consistent with this result, H3 is also supported, demonstrating that green marketing communication positively influences ecotourism satisfaction ($\beta=0.137$, $t=3.611$, $p<0.001$). Effective communication of sustainability initiatives increases tourists' confidence in the destination's environmental commitment and aligns their expectations with actual destination performance (Tanković & Mušanović,

2022; Chang et al., 2025). From the TPB perspective, green marketing communication reinforces subjective norms by promoting environmentally responsible values, thereby encouraging favorable evaluations that ultimately enhance tourists' satisfaction.

However, H4 is not supported, as green experience does not significantly influence ecotourism satisfaction ($\beta=0.057$,

$t=1.391$, $p=0.164$). Although environmentally friendly experiences are generally expected to improve tourists' evaluations, the findings imply that such experiences alone may not be sufficient to increase satisfaction. It is possible that tourists perceive green activities as complementary rather than essential aspects of their visits, suggesting that satisfaction is influenced more strongly by cognitive evaluations and destination management than by experiential factors alone (Abbasi et al., 2021; Samri et al., 2025; Borthakur & Kondasani, 2026).

In contrast, H5 is supported, confirming that environmental concern has a positive and significant effect on ecotourism satisfaction ($\beta=0.264$, $t=5.284$, $p<0.001$). Tourists with stronger environmental concern tend to value destinations that actively implement conservation and sustainability practices (Fu & Zhao, 2024; Luong & Nguyen, 2025). According to TPB, environmental concern strengthens favorable attitudes toward environmentally responsible behavior, leading tourists to perceive greater value and meaning in their ecotourism experiences, which ultimately increases their satisfaction.

The results also support H6, indicating that ecotourism satisfaction has a

positive and significant effect on revisit intention ($\beta=0.818$, $t=3.330$, $p<0.001$). Satisfied tourists are more likely to revisit destinations because positive experiences reinforce their confidence that future visits will provide similar environmental and recreational benefits (Abbasi et al., 2021; Paul & Roy, 2025). This finding is consistent with TPB, which posits that favorable evaluations strengthen behavioral intentions, making satisfaction an important predictor of tourists' willingness to return to ecotourism destinations.

Furthermore, H7 is supported, demonstrating that ecotourism satisfaction positively influences green advocacy ($\beta=0.856$, $t=4.214$, $p<0.001$). Tourists who are satisfied with environmentally responsible destinations are more likely to recommend these destinations, share positive experiences, and encourage others to adopt sustainable tourism practices (Mathew et al., 2024). This finding suggests that satisfaction extends beyond repeat visitation by stimulating voluntary pro-environmental behaviors, highlighting its strategic role in promoting sustainable tourism through positive word-of-mouth and environmental advocacy (Chen & Cheung, 2025).

Table 6. Hypothesis Test Result

Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Remark	Conclusion
EK → ES	0.342	0.340	0.059	5.765	0.000	Significant	H1: Accepted
GI → ES	0.206	0.207	0.050	4.127	0.000	Significant	H2: Accepted
GMC → ES	0.137	0.137	0.038	3.611	0.000	Significant	H3: Accepted
GE → ES	0.057	0.058	0.041	1.391	0.164	Not Significant	H4: Rejected
EC → ES	0.264	0.264	0.050	5.284	0.000	Significant	H5: Accepted
ES → ERI	0.081	0.082	0.022	3.330	0.000	Significant	H6: Accepted
ES → GA	0.085	0.085	0.020	4.214	0.000	Significant	H7: Accepted

Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Remark	Conclusion
EK → ES → ERI	0.279	0.278	0.049	5.737	0.000	Significant	H8: Partially
GI → ES → ERI	0.168	0.169	0.041	4.126	0.000	Significant	Accepted
GMC → ES → ERI	0.112	0.112	0.031	3.612	0.000	Significant	
GE → ES → ERI	0.047	0.048	0.034	1.387	0.165	Not Significant	
EC → ES → ERI	0.216	0.216	0.042	5.106	0.000	Significant	
EK → ES → GA	0.292	0.291	0.050	5.871	0.000	Significant	H9: Partially
GI → ES → GA	0.176	0.177	0.043	4.096	0.000	Significant	Accepted
GMC → ES → GA	0.117	0.117	0.033	3.592	0.000	Significant	
GE → ES → GA	0.049	0.050	0.035	1.386	0.166	Not Significant	
EC → ES → GA	0.226	0.226	0.044	5.151	0.000	Significant	

Source: Processed Data (2026)

The mediation analysis shows that H8 is not fully supported because ecotourism satisfaction does not significantly mediate the relationship between green experience and revisit intention ($\beta=0.047$, $t=1.387$, $p=0.165$). Nevertheless, the indirect effects of ecological knowledge ($\beta=0.279$, $p<0.001$), green infrastructure ($\beta=0.168$, $p<0.001$), green marketing communication ($\beta=0.112$, $p<0.001$), and environmental concern ($\beta=0.216$, $p<0.001$) on revisit intention through ecotourism satisfaction are all positive and statistically significant. Therefore, although H8 is formally rejected, the findings indicate that ecotourism satisfaction successfully mediates most of the proposed indirect relationships.

These findings suggest that tourists' cognitive, contextual, and moral evaluations are more influential in stimulating revisit intention than experiential factors alone (Luong & Nguyen, 2025). In line with the Theory of Planned Behavior (TPB), ecological knowledge, green infrastructure, green marketing communicati-

on, and environmental concern contribute to favorable evaluations of ecotourism destinations, which subsequently strengthen tourists' intentions to revisit (Nguyen-Van et al., 2025). In contrast, green experience appears insufficient to generate revisit intention through satisfaction, implying that memorable environmental experiences alone may not encourage repeat visitation unless they are accompanied by meaningful environmental knowledge, adequate supporting infrastructure, credible sustainability communication, and strong environmental values (Constantin et al., 2022; Hamid et al., 2023).

Similarly, the results indicate that H9 is not fully supported because ecotourism satisfaction does not significantly mediate the relationship between green experience and green advocacy ($\beta=0.049$, $t=1.386$, $p=0.166$). However, the indirect effects of ecological knowledge ($\beta=0.292$, $p<0.001$), green infrastructure ($\beta=0.176$, $p<0.001$), green marketing communication ($\beta=0.117$, $p<0.001$), and environmental concern ($\beta=0.226$, $p<0.001$) on green

advocacy through ecotourism satisfaction are all positive and statistically significant. Accordingly, although H9 is formally rejected, the results demonstrate that ecotourism satisfaction serves as an effective mediating mechanism for the majority of the proposed relationships leading to green advocacy.

These findings imply that green advocacy is primarily driven by tourists' cognitive understanding, environmental values, and perceptions of destination sustainability rather than by environmental experiences alone (Naparín et al., 2025). From the perspective of the Theory of Planned Behavior (TPB), ecological knowledge, green infrastructure, green marketing communication, and environmental concern foster favorable attitudes and positive evaluations, which are reflected in higher levels of ecotourism satisfaction and subsequently encourage voluntary pro-environmental behaviors such as recommending sustainable destinations and promoting environmentally responsible tourism. (Rao et al., 2022). Conversely, although green experience may create enjoyable and memorable visits, such experiences do not automatically motivate tourists to become environmental advocates unless they are accompanied by stronger cognitive awareness, credible sustainability practices, and deeply rooted environmental concern (Li & Wu, 2020; Kim et al., 2023).

CONCLUSION AND RECOMMENDATION

This study examined the determinants of ecotourism satisfaction and their effects on revisit intention and green advocacy by developing a TPB-informed framework that incorporates ecological knowledge, green infrastructure, green marketing communication, green experience, and environmental concern. The findings reveal that ecological knowledge, green infrastructure, green marketing

communication, and environmental concern significantly enhance ecotourism satisfaction, whereas green experience does not have a significant effect. Furthermore, ecotourism satisfaction significantly influences revisit intention and green advocacy. The mediation analysis indicates that ecotourism satisfaction significantly mediates the relationships between ecological knowledge, green infrastructure, green marketing communication, and environmental concern and both revisit intention and green advocacy. However, the mediation effects involving green experience are not statistically significant.

Theoretically, this study contributes to the sustainable tourism literature by extending the application of TPB through the incorporation of an evaluative mechanism that explains how sustainability-related antecedents are translated into behavioral outcomes. Rather than directly modifying the original TPB structure, this study demonstrates how ecotourism satisfaction functions as a psychological evaluation process linking cognitive, contextual, and moral factors with sustainable tourist behaviors. This perspective provides a more comprehensive understanding of how tourists evaluate sustainable destination experiences before developing revisit intentions and engaging in green advocacy.

Practically, destination managers and policymakers should prioritize strengthening tourists' ecological knowledge, improving green infrastructure, and implementing credible sustainability communication strategies because these factors significantly contribute to ecotourism satisfaction and subsequent sustainable behaviors. Although green experience represents an important aspect of sustainable tourism, the findings indicate that experiential activities alone may not be sufficient to enhance satisfaction. Therefore, destination managers should ensure that green experiences are supported by meaningful environmental education, adequate infrastructure, and authentic sustainabi-

lity practices to maximize their impact on tourist evaluations.

This study is limited by its cross-sectional design, its focus on Indonesian ecotourism destinations, and the use of self-reported data, which may limit causal inference and generalizability. In addition, the sample was heavily concentrated among young respondents, which may influence the interpretation of tourists' sustainability perceptions and behavioral intentions. Future research should therefore examine more diverse demographic groups, adopt longitudinal or mixed-method approaches, investigate different tourism contexts, and incorporate additional constructs such as destination image, place attachment, or environmental citizenship behavior to further explain sustainable tourist behavior and validate the proposed model across broader settings.

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REFERENCES

- Abbasi, G. A., Kumaravelu, J., Goh, Y.-N., & Dara Singh, K. S. (2021). Understanding the intention to revisit a destination by expanding the theory of planned behaviour (TPB). *Spanish Journal of Marketing - ESIC*, 25(2), 282–311. <https://doi.org/10.1108/SJME-12-2019-0109>
- Achmad, F., Prambudia, Y., & Rumanti, A. A. (2023). Sustainable Tourism Industry Development: A Collaborative Model of Open Innovation, Stakeholders, and Support System Facilities. *IEEE Access*, 11, 83343–83363. <https://doi.org/10.1109/ACCESS.2023.3301574>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Alashiq, S., & Aljuhmani, H. Y. (2025). From Sustainable Tourism to Social Engagement: A Value-Belief-Norm Approach to the Roles of Environmental Knowledge, Eco-Destination Image, and Biospheric Value. *Sustainability*, 17(10), 4353. <https://doi.org/10.3390/su17104353>
- Amin, A., & Munir, S. (2026). Motivation, Eco-tourism, Environmental Concerns, and Sustainable Behavior: A Phenomenological Study. *Journal of Professional & Applied Psychology*, 7(1), 190–199. <https://doi.org/10.52053/jpap.v7i1.484>
- Anggraeni, V., Achsanta, A. F., & Purnomowati, N. H. (2023). Measuring opportunities: Transforming Indonesia's economy through utilizing natural resources for sustainable development through green economy indicators. *IOP Conference Series: Earth and Environmental Science*, 1180(1), 012011. <https://doi.org/10.1088/1755-1315/1180/1/012011>
- Araújo, A., Marques, I. A., Moreno, L. L., & García, P. C. (2025). Bridging the Attitude–Behavior Gap in Sustainable Tourism: An Extended TPB Model of Green Hotel Purchase Intentions. *Tourism and Hospitality*, 6(4), 215. <https://doi.org/10.3390/tourhosp6040215>
- Arifianto, A., Ihsan Yudanto, M., & Sutriadi, R. (2023). Involvement of Indigenous and Non-Indigenous Societies through the Development of Community Based Ecotourism Concept in Coastal Areas: Case Studies from Indonesia. *IOP Conference Series: Earth and Environmental Science*, 1250(1), 012016. <https://doi.org/10.1088/1755-1315/1250/1/012016>
- Ashraf, M. S., Hou, F., Kim, W. G., Ahmad, W., & Ashraf, R. U. (2020). Modeling tourists' visiting intentions toward eco-friendly destinations: Implications for sustainable tourism operators. *Business Strategy and the Environment*, 29(1), 54–

71. <https://doi.org/10.1002/bse.2350>
- Aswita, D., Suryadarma, I.G.P., Suyanto, S., & Herawan, T. (2020). The Natural Resources Potency of Marine Ecotourism as an Environmental Education Source. *GeoJournal of Tourism and Geosites*, 31(3), 996–1003. <https://doi.org/10.30892/gtg.31310-533>
- Bagdja, R. S. A., Munizu, M., Nohong, M., Hamid, N., & Jabbar, I. N. (2024). Development of sustainable tourism in Indonesia: Applying the extended theory of planned behavior to encourage eco-friendly practices among tourists. *Journal of Infrastructure Policy and Development*, 8(14), 8540. <https://doi.org/10.24294/jipd8540>
- Balaskas, S., Yfantidou, I., Panteli, A., Komis, K., & Nikolopoulos, T. (2025). From Intention to Action: Modeling Post-Visit Responsible Behavior in Ecotourism. *Tourism and Hospitality*, 6(4), 170. <https://doi.org/10.3390/tourhosp6040170>
- Baloch, Q. B., Shah, S. N., Iqbal, N., Sheeraz, M., Asadullah, M., Mahar, S., & Khan, A. U. (2023). Impact of tourism development upon environmental sustainability: A suggested framework for sustainable ecotourism. *Environmental Science and Pollution Research*, 30(3), 5917–5930. <https://doi.org/10.1007/s11356-022-22496-w>
- Baltaci, M. (2025). The Future of Sustainable Tourism: The Importance and Applications of Green Travel. *Journal of Academic Tourism Studies*, Cilt: 6 Sayı: 1(Cilt: 6 Sayı: 1), 86–99. <https://doi.org/10.29228/jatos.81936>
- Bezuhla, L., Koshkald, I., Perevozova, I., Kasian, S., & Nataliia, H. (2022). Marketing management of the regional ecotourism infrastructure. *International Journal of Industrial Engineering*, 33(1), 1-11.
- Borthakur, M., & Kondasani, R. K. R. (2026). Responsible tourist behavior in ecotourism: The roles of value, satisfaction and intention. *Leisure/Loisir*, 50(2), 413–436. <https://doi.org/10.1080/14927713.2024.2410177>
- Castellanos-Verdugo, M., Vega-Vázquez, M., Oviedo-García, M. Á., & Orgaz-Agüera, F. (2016). The relevance of psychological factors in the ecotourist experience satisfaction through ecotourist site perceived value. *Journal of Cleaner Production*, 124, 226–235. <https://doi.org/10.1016/j.jclepro.2016.02.126>
- Chang, W., Li, H., Khamarudin, M., & Khan, W. A. (2025). Influencing eco-conscious travelers: The role of green marketing in promoting sustainable destinations. *Acta Psychologica*, 260, 105506. <https://doi.org/10.1016/j.actpsy.2025.105506>
- Chen, X., & Cheung, L. T. O. (2025). Balancing nature-based tourism and sustainable well-being: Exploring aesthetic quality, environmental benefits, and pro-environmental behaviour. *Asia Pacific Journal of Tourism Research*, 30(6), 809–830. <https://doi.org/10.1080/10941665.2025.2470639>
- Chi, N. T. K. (2021). Understanding the effects of eco-label, eco-brand, and social media on green consumption intention in ecotourism destinations. *Journal of Cleaner Production*, 321, 128995. <https://doi.org/10.1016/j.jclepro.2021.128995>
- Clark, E., Mulgrew, K., Kannis-Dymand, L., Schaffer, V., & Hoberg, R. (2019). Theory of planned behaviour: Predicting tourists' pro-environmental intentions after a humpback whale encounter. *Journal of Sustainable Tourism*, 27(5), 649–667. <https://doi.org/10.1080/09669582.2019.1603237>
- Constantin, C. P., Ispas, A., & Candrea, A. N. (2022). Examining the Relationships between Visitors Profile, Satisfaction and Revisit Intentions: Evidence from Romanian Ecotourism Destinations. *Land*, 11(2), 186. <https://doi.org/10.3390/land11020186>
- Conti, S., Dias, Á., & Pereira, L. (2023). Perceived City Sustainability and Tourist Behavioural Intentions. *Smart Cities*, 6(2), 692–708. <https://doi.org/10.3390/smartcities6020033>
- Correia, E., Sousa, S., Viseu, C., & Larginho, M. (2023). Analysing the influence of green marketing communication in consumers' green purchase behaviour. *International Journal of Environmental Re-*

- search and Public Health*, 20(2), 1356.
- Čuić Tanković, A., & Mušanović, J. (2022). Exploring direct and indirect effects of sustainability communication on destination reputation. *Journal of Destination Marketing & Management*, 25, 100729. <https://doi.org/10.1016/j.jdmm.2022.100729>
- Demirović Bajrami, D., Đervida, R., Radosavac, A., Vuksanović, N., & Matović, S. (2025). What makes tourists go green? A multidimensional exploration of pro-environmental behavior predictors. *Journal of Hospitality and Tourism Insights*, 8(8), 3108–3127. <https://doi.org/10.1108/JHTI-09-2024-0972>
- Dong, Z., He, C., Hu, T., & Jiang, T. (2024). Integrating values, ascribed responsibility and environmental concern to predict customers' intention to visit green hotels: The mediating role of personal norm. *Frontiers in Psychology*, 14, 1340491. <https://doi.org/10.3389/fpsyg.2023.1340491>
- El Moslem Badr, Dr. M. (2022). Challenges and Future of the development of sustainable ecotourism. *International Journal of Modern Agriculture and Environment*, 2(2), 54–72. <https://doi.org/10.21608/ijmae.2023.214937.1006>
- Fu, Y., & Zhao, J. (2024). Applying the Theory of Planned Behavior to Understand Ecotourism Behavior: The Role of Human–Land Coordination and Self-Mastery. *Sustainability*, 16(21), 9248. <https://doi.org/10.3390/su16219248>
- Hadi, A. S. (2023). The role of integrated marketing communication, ecological knowledge and co-creation of value toward visitor satisfaction in the hotel industry. *Asian Management and Business Review*, 48-59.
- Hamid, M. A., Fuza, Z. I. M., Mahmood, R., Ahmad, Z., & Gaffar, V. (2023). *Determinants Affecting the Visitor Re-visit Intention at Ecotourism Destination*. 486–495. <https://doi.org/10.15405/epsbs.2023.11.02.37>
- Han, H. (2021). Consumer behavior and environmental sustainability in tourism and hospitality: A review of theories, concepts, and latest research. *Journal of Sustainable Tourism*, 29(7), 1021–1042. <https://doi.org/10.1080/09669582.2021.1903019>
- Hanafiah, M. H., Patwary, A. K., Hussein, A. S., & Azwar, H. (2025). Glamorous green tourism: Exploring the intersection of green marketing practices and tourist planned behavior in glamping tourism. *Journal of Hospitality and Tourism Insights*, 8(9), 3419–3439. <https://doi.org/10.1108/JHTI-10-2024-1088>
- Hansen, T., Olk, S., & Thomsen, T. U. (2024). A meta-analysis of sustainable tourist behavioral intention and the moderating effects of national culture. *Journal of Sustainable Tourism*, 32(5), 883–903. <https://doi.org/10.1080/09669582.2023.2186825>
- Hasan, A.A., Biswas, C., Roy, M., Akter, S., & Kuri, B.C. (2020). The Applicability of Theory of Planned Behaviour to Predict Domestic Tourist Behavioural Intention: The Case of Bangladesh. *Geo Journal of Tourism and Geosites*, 31(3), 1019–1026. <https://doi.org/10.30892/gtg.31313-536>
- Huang, T., Fang, C., Dukhaykh, S., Bayram, G. E., & Bayram, A. T. (2024). Enhancing Tourist Well-Being in Jilin Province: The Roles of Eco-Friendly Engagement and Digital Infrastructure. *Sustainability*, 16(22), 9644. <https://doi.org/10.3390/su16229644>
- Huang, Y.-C., & Liu, C.-H. S. (2017). Moderating and mediating roles of environmental concern and ecotourism experience for revisit intention. *International Journal of Contemporary Hospitality Management*, 29(7), 1854–1872. <https://doi.org/10.1108/IJCHM-12-2015-0677>
- Hui, X., Raza, S. H., Khan, S. W., Zaman, U., & Ogadimma, E. C. (2023). Exploring Regenerative Tourism Using Media Richness Theory: Emerging Role of Immersive Journalism, Metaverse-Based Promotion, Eco-Literacy, and Pro-Environmental Behavior. *Sustainability*, 15(6), 5046. <https://doi.org/10.3390/su15065046>
- Ibnou-Laaroussi, S., Rjoub, H., & Wong, W.-K. (2020). Sustainability of Green Tourism among International Tour-

- ists and Its Influence on the Achievement of Green Environment: Evidence from North Cyprus. *Sustainability*, 12(14), 5698. <https://doi.org/10.3390/su12145698>
- Jiang, J., Gao, B. W., & Su, X. (2022). Antecedents of Tourists' Environmentally Responsible Behavior: The Perspective of Awe. *Frontiers in Psychology*, 13, 619815. <https://doi.org/10.3389/fpsyg.2022.619815>
- Jieyao, Z., Kumar, J., & Rasoolimanesh, S. M. (2025). Pro-environmental behavioural intention towards ecotourism: Integration of the theory of planned behaviour and theory of interpersonal behaviour. *Journal of Ecotourism*, 1–38. <https://doi.org/10.1080/14724049.2025.2509648>
- Kharira, H. F., & Koswara, A. Y. (2022). Arahkan Penyediaan Green Infrastructure Wisata Pantai Wedi Ireng Kecamatan Pesanggaran Kabupaten Banyuwangi. *Jurnal Teknik ITS*, 11(3), 94-99.
- Kia, Z. (2021). Ecotourism in Indonesia: Local Community Involvement and The Affecting Factors. *Journal of Governance and Public Policy*, 8(2). <https://doi.org/10.18196/jgpp.v8i2.10789>
- Kim, K., Wang, Y., Shi, J., Guo, W., Zhou, Z., & Liu, Z. (2023). Structural Relationship between Ecotourism Motivation, Satisfaction, Place Attachment, and Environmentally Responsible Behavior Intention in Nature-Based Camping. *Sustainability*, 15(11), 8668. <https://doi.org/10.3390/su15118668>
- Li, J., Coca-Stefaniak, J. A., Nguyen, T. H. H., & Morrison, A. M. (2024). Sustainable tourist behavior: A systematic literature review and research agenda. *Sustainable Development*, 32(4), 3356–3374. <https://doi.org/10.1002/sd.2859>
- Li, Q., & Wu, M. (2020). Tourists' pro-environmental behaviour in travel destinations: Benchmarking the power of social interaction and individual attitude. *Journal of Sustainable Tourism*, 28(9), 1371–1389. <https://doi.org/10.1080/09669582.2020.1737091>
- Liu, C., Ahmad, N., Arshad, M. Z., & Mingdi, J. (2026). Connecting green dots: The role of social media in sustainable tourism decision-making. *Journal of Hospitality and Tourism Technology*, 1–21. <https://doi.org/10.1108/JHTT-11-2024-0734>
- Luján Vera, P. E., Mamani Cornejo, J., Seminario Morales, M. V., & Esparza-Huamanchumo, R. M. (2025). Motivation, Satisfaction, Place Attachment, and Return Intention to Natural Destinations: A Structural Analysis of Ayabaca Moorlands, Peru. *Tourism and Hospitality*, 6(4), 163. <https://doi.org/10.3390/tourhosp6040163>
- Luong, T., & Nguyen, D. T. A. (2025). Future Time Perspective, Eco-Destination Image, Environmental Concern, Ecotourism Behavioral Intention in Vietnamese Ecotourists: The Moderating Role of Environmental Knowledge. *International Journal of Tourism Research*, 27(2), e70031. <https://doi.org/10.1002/jtr.70031>
- Luongo, S., Napolano, E., & Gul, K. (2024). Sustainable Tourism Intentions: Extending the Theory of Planned Behavior. *Turistica - Italian Journal of Tourism*, 32(3), 31–60. <https://doi.org/10.70732/tijt.v32i3.28>
- Madhyamapurush, W. (2026). Constraints, Communication, and the Satisfaction–Advocacy Gap: Behavioural Intentions of Low-Carbon Tourists in Thailand. *Tourism and Hospitality*, 7(4), 115. <https://doi.org/10.3390/tourhosp7040115>
- Mathew, P. V., Cabral, C., & Mohandas, N. P. (2024). Influence of responsible tourism practices on the destination perceptions of tourists. *International Journal of Tourism Research*, 26(4), e2692. <https://doi.org/10.1002/jtr.2692>
- Naparin, M. (2025). The Effect of Educational, Escapism, Memorable Tourism Experience on Sustainability-Oriented Loyalty in Kembang Island Park with the Moderating Effect of Biodiversity Knowledge: Green Marketing Perspective. *Asia Marketing Journal*, 26(4), 255–268. <https://doi.org/10.53728/2765-6500.1642>
- Naparin, M., Prihatiningrum, R. Y., Claudia, M., & Adriani, A. (2025). Transforming customer behavior into pro-environmental citizenship as a new challenge in

- sustainability-based marketing communication in ecotourism industry. *Cogent Business & Management*, 12(1), 2567628. <https://doi.org/10.1080/23311975.2025.2567628>
- Nekmahmud, Md., Ramkissoon, H., & Fekete-Farkas, M. (2022). Green purchase and sustainable consumption: A comparative study between European and non-European tourists. *Tourism Management Perspectives*, 43, 100980. <https://doi.org/10.1016/j.tmp.2022.100980>
- Nguyen, T. H.-H., Pilik, M., & Pham, N. T. (2025). Firms' green knowledge sharing and tourists' green electronic word-of-mouth intention: A two-wave time-lagged study of moderated mediation model. *Journal of Sustainable Tourism*, 33(3), 416–435. <https://doi.org/10.1080/09669582.2024.2346791>
- Nguyen-Van, H., Nguyen, L. D., Pham-Hong, T., Nguyen, H. T. T., Hoang, D. N. T., Nguyen, H. T., & Nguyen, H. L. T. (2025). Ecotourism Choice Drivers: Role of Green Marketing, Green Innovation, and Receptivity to Green Communication. *Journal of Human, Earth, and Future*, 6(3), 505–520. <https://doi.org/10.28991/HEF-2025-06-03-02>
- Nugroho, L. D., Melati, S. R., Wahyuliana, I., Pawestri, A., & Kurniawan, L. F. (2023). Legal Policy of Implementation Green Economy In the Tourism Sector To Realize Sustainable Tourism And Environment. *IOP Conference Series: Earth and Environmental Science*, 1181(1), 012018. <https://doi.org/10.1088/1755-1315/1181/1/012018>
- Patwary, A. K., Mohamed, M., Rabiul, M. K., Mehmood, W., Ashraf, M. U., & Adamu, A. A. (2022). Green purchasing behaviour of international tourists in Malaysia using green marketing tools: Theory of planned behaviour perspective. *Nankai Business Review International*, 13(2), 246–265. <https://doi.org/10.1108/NBRI-06-2021-0044>
- Paul, I., & Roy, G. (2025). How eco-service quality affects tourist engagement behaviour in ecotourism: Eco-consciousness and eco activity-based learning and S-O-R Theory. *Tourism Recreation Research*, 50(2), 385–401. <https://doi.org/10.1080/02508281.2023.2275240>
- Persada, S. F., Prasetyo, Y. T., Maharani, I. G. A. P., Apriyansyah, B., Ong, A. K. S., Young, M. N., Nadlifatin, R., Setiyati, E. A., Shanti, M., Kumalasari, R. D., Ubud, S., Putra, R. A. K., Putri, H. H. K., Gunawan, G. A., Wijaya, I. B. A., Zunaidah, A., Putri, G. S., Prisca, Y., Redi, A. A. N. P., & Razif, M. (2023). How Tourists Reacted to Ecotourism during COVID-19: Insights on Its Sustainability from a Multivariate Analysis Based on the Case of Banyuwangi. *Sustainability*, 15(2), 1440. <https://doi.org/10.3390/su15021440>
- Praptiwi, R. A., Maharja, C., Fortnam, M., Chaigneau, T., Evans, L., Garniati, L., & Sugardjito, J. (2021). Tourism-Based Alternative Livelihoods for Small Island Communities Transitioning towards a Blue Economy. *Sustainability*, 13(12), 6655. <https://doi.org/10.3390/su13126655>
- Purwanti, P., Fattah, M., Qurrata, V. A., & Narmaditya, B. S. (2021). An institutional reinforcement model for the protection of mangroves sustainable ecotourism in Indonesia. *Geo Journal of Tourism and Geosites*, 35(2), 471–479.
- Putri, G. S., Ananta, I. B., Rafiqi, H. B., Persada, S. F., Elysia, F., & Panduhati, K. L. (2024). How to Optimize Promotion Tactics for Sustainable Tourism Product through 360-degree Communication? (Case Study in Poncokusumo, Malang). *IOP Conference Series: Earth and Environmental Science*, 1324(1), 012065. <https://doi.org/10.1088/1755-1315/1324/1/012065>
- Quynh, N., Hoai, N. T., & Loi, N. V. (2021). The role of emotional experience and destination image on ecotourism satisfaction. *Spanish Journal of Marketing - ESIC*, 25(2), 312–332. <https://doi.org/10.1108/SJME-04-2020-0055>
- Rao, X., Qiu, H., Morrison, A. M., & Wei, W. (2022). Extending the Theory of Planned Behavior with the Self-Congruity Theory to Predict Tourists' Pro-Environmental Behavioral Intentions: A Two-Case Study of Heritage Tourism. *Land*, 11(11), 2069. <https://doi.org/10.3390/land11112069>

- Ren, J., Su, K., Chang, Y., & Wen, Y. (2021). Formation of Environmentally Friendly Tourist Behaviors in Ecotourism Destinations in China. *Forests*, 12(4), 424. <https://doi.org/10.3390/f12040424>
- Sahabuddin, M., Alam, Md. S., & Nekomahmud, Md. (2024). How do perceived and environmental values influence tourist satisfaction, loyalty, and environmental awareness? *Environment, Development and Sustainability*, 28(3), 7817–7840. <https://doi.org/10.1007/s10668-024-05094-3>
- Samri, N. F., Abdul Halim, M. R., Nordin, A. O. S., Hamid, S. A., Ngah, A. H., & Edros, S. A. (2025). Nature Cruise Service Performance, Green Experience Satisfaction and Revisit Intentions: A Segmentation Approach to Kenyir Lake for Ecotourism Destination Sustainability. *Universiti Malaysia Terengganu Journal of Undergraduate Research*, 7(2), 194–214. <https://doi.org/10.46754/umtjur.v7i2.669>
- Sanjaya, D., Arief, M., Juli Setiadi, N., & Heriyati, P. (2024). Exploring the role of digital green marketing campaigns and environmental beliefs in shaping tourist behavior and revisit intentions in ecotourism. *Journal of Eastern European and Central Asian Research (JEECAR)*, 11(3), 553–572. <https://doi.org/10.15549/jeecar.v11i3.1693>
- Setiawan, B., Afiff, A. Z., & Heruwasto, I. (2021). The role of norms in predicting waste sorting behavior. *Journal of Social Marketing*, 11(3), 224–239. <https://doi.org/10.1108/JSOCM-05-2020-0088>
- Sobral, A., LA TORRE, M. D. L. Á., Alves, R. R. N., & Albuquerque, U. P. (2017). Conservation efforts based on local ecological knowledge: The role of social variables in identifying environmental indicators. *Ecological indicators*, 81, 171–181.
- Solekah, N. A., Handriana, T., & Usman, I. (2023). Environmental Sustainability in Muslim-Friendly Tourism: Evaluating the Influence of Schwartz's Basic Value Theory on Tourist Behaviour in Indonesia. *Opportunities and Challenges in Sustainability*, 2(4), 172–183. <https://doi.org/10.56578/ocs020401>
- Sthapit, E., Björk, P., & Coudounaris, D. N. (2023). Memorable nature-based tourism experience, place attachment and tourists' environmentally responsible behaviour. *Journal of Ecotourism*, 22(4), 542–565. <https://doi.org/10.1080/14724049.2022.2091581>
- Thuy, T. T. T., Thao, N. T. T., Thuy, V. T. T., Hoa, S. T. O., & Nga, T. T. D. (2025). Bridging Human Behavior and Environmental Norms: A Cross-Disciplinary Approach to Sustainable Tourism in Vietnam. *Sustainability*, 17(10), 4496. <https://doi.org/10.3390/su17104496>
- Tölkes, C. (2018). Sustainability communication in tourism – A literature review. *Tourism Management Perspectives*, 27, 10–21. <https://doi.org/10.1016/j.tmp.2018.04.002>
- Torabi, Z.-A., Rezvani, M. R., Hall, C. M., Davani, P., & Bakhshaei, B. (2025). Place Identity and Environmental Conservation in Heritage Tourism: Extending the Theory of Planned Behavior to Iranian Rural Heritage Villages. *Tourism and Hospitality*, 6(3), 150. <https://doi.org/10.3390/tourhosp6030150>
- Torsney, A., O'Driscoll, P., & Buckley, Y. M. (2025). Defining ecotourism for mainstream application and to support sustainable tourism governance. *Ecological Solutions and Evidence*, 6(2), e70050. <https://doi.org/10.1002/2688-8319.70050>
- Tuwo, A., Yunus, M., Aprianto, R., & Tresnati, J. (2021). Marine ecotourism development in South Sulawesi, Indonesia. *IOP Conference Series: Earth and Environmental Science*, 763(1), 012068. <https://doi.org/10.1088/1755-1315/763/1/012068>
- Wu, H. C., & Cheng, C. C. (2017). What drives green advocacy? A case study of leisure farms in Taiwan. *Journal of Hospitality and Tourism Management*, 33, 103–112.
- Xiaoqin, W., & Zhanhong, C. (2025). Influence of Ecotourism Experience on Tourists' Environmentally Responsible Behavior: A Case Study of Luya Mountain Scenic Area. *Journal of Resources and Ecology*, 16(2). <https://doi.org/10.5814/j.issn.1674-764x.2025.02.023>
- Yaja, M., Hajoary, P. K., Thenmozhi, M., &

- Kumar, A. (2026). Understanding Tourists' Environmental Behavior Through the Lens of Willingness to Change and Motivational Factors. *International Journal of Consumer Studies*, 50(1), e70172. <https://doi.org/10.1111/ijcs.70172>
- Yarimoglu, E., & Gunay, T. (2020). The extended theory of planned behavior in Turkish customers' intentions to visit green hotels. *Business Strategy and the Environment*, 29(3), 1097–1108. <https://doi.org/10.1002/bse.2419>
- Zhang, J., Jin, L., Pan, X., & Wang, Y. (2024). Pro-Environmental Behavior of Tourists in Ecotourism Scenic Spots: The Promoting Role of Tourist Experience Quality in Place Attachment. *Sustainability*, 16(20), 8984. <https://doi.org/10.3390/su16208984>
- Zulvianti, N., Aimon, H., & Abror, A. (2022). The Influence of Environmental and Non-Environmental Factors on Tourist Satisfaction in Halal Tourism Destinations in West Sumatra, Indonesia. *Sustainability*, 14(15), 9185. <https://doi.org/10.3390/su14159185>