

# Tourism Experience and Ecotourism Destination Loyalty: The Mediating Role of Environmental Beliefs

Sharifah Hilmi Syed Abdullah<sup>1</sup>, Kamisah Supian<sup>2</sup>, Baharuddin Ishak<sup>3</sup>, Reeny Karlina Abdul Rauf<sup>4</sup>, Nur'Ain Amit<sup>5</sup>

<sup>1</sup>Department of Business Management and Sport Industry, Faculty of Business and Accountancy, Universiti Selangor

<sup>2</sup>Department of Accounting, Finance and Muamalah, Faculty of Business and Accountancy, Universiti Selangor

<sup>3,4,5</sup>Department of Administrative Management and Human Resource, Faculty of Business and Accountancy, Universiti Selangor

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## ABSTRACT

The increasing global popularity of ecotourism has prompted tourist destinations to accommodate a growing number of visitors who like nature and are prepared to adhere to the conservation criteria of the selected natural areas. Hence, this study analyses the influences of tourism experience and environmental beliefs on ecotourism destination loyalty among visitors in Selangor. A quantitative approach was utilised, and a structured questionnaire was used to collect 280 tourist responses through convenience sampling. These findings offer useful insights for policymakers and ecotourism operators in planning sustainable tourism strategies and enhancing the destination appeal. This study identifies statistically significant and favourable impacts of tourism experience and environmental beliefs on ecotourism destination loyalty. The findings empirically indicate that tourists are mostly drawn to natural environment locations, and those with tourism experience and environmental beliefs are inclined to participate in ecotourism. Policymakers must meticulously consider the planning and preservation of local resources and infrastructure for the advancement of ecotourism. Furthermore, the administration of the eco-site must effectively preserve the biodiversity and deliver a genuine ecotourism experience to enhance the ecotourism destination.

**Keywords:** environmental concern, natural environment, sustainable development, sustainable tourism, biodiversity

## INTRODUCTION

Ecotourism industry is growing as people look for meaningful vacation experiences and are more conscious of environmental challenges. The demand for health and wellness-related leisure activities is predicted to increase due to socioeconomic and lifestyle changes [9]. Travel destinations like Malaysia are seizing the chance to conform to the values and interests of this expanding market group as the demand for eco-friendly experiences rises. Specifically, the State of Selangor offers a wealth of natural beauty and picturesque vistas for ecotourists to enjoy or for ecotourism experiences. Ecotourism destinations in Selangor provide chances for wildlife observation, cultural immersion, and outdoor activities are attracting more and more tourists.

Selangor, although the most urbanized state in the nation, boasts an abundance of natural attractions and offerings that cater to every conceivable age group and accommodate a diverse spectrum of physical abilities, ranging from leisurely strolls in parks or rainforests to demanding mountain trekking, white-water rafting, kayaking, spelunking, caving, rock climbing, and beyond. Nevertheless, since numerous attractions are in relatively unspoiled states or are less crowded, it is prudent for visitors to ascertain their physical capabilities before embarking on these more demanding excursions, and to adequately prepare for the undertaking itself. Selangor has experienced robust growth in both domestic and international tourism, including ecotourism, with a notable increase in 2023. In 2023, Selangor welcomed 6.54 million tourists, above the target of 5 million,

representing a 46.4% increase from the prior year. Ecotourism, historical, and cultural experiences are essential factors in this expansion, as Selangor targets 8 million visitors by 2025 with the "Visit Selangor 2025" initiative.

Ecotourism is a distinct category of tourism that prioritizes responsible travel to natural environments, fostering sustainability, environmental education, and socio-economic advantages for local populations. However, past research has not adequately explored the mediating role of environmental beliefs between tourism experience and destination loyalty, especially within the Selangor context. The concept has evolved, demonstrating a dedication to ideals that protect the integrity of the natural environment and local cultures while offering rewarding experiences for tourists [29]. Ecotourism is characterized by its commitment to ideals that prioritize environmental conservation and mitigate the adverse effects of tourism. These principles direct the formulation of ecotourism initiatives, guaranteeing their contribution to biodiversity conservation, community well-being, and the sustainable utilization of natural resources [1], [28]. For instance, ecotourism fosters small-scale, nature-centric tourism, facilitating more profound environmental interactions and incorporating ecological and conservation education into tourist endeavours [34].

The purpose of this study is to deepen our understanding of ecotourism by looking the influences of tourism experiences and environmental beliefs on ecotourism destination loyalty in Selangor. This study examines how tourists will respond to environmental messages and how a person's emotional relationship to a place might affect their environmental conduct and foster a sense of loyalty to an ecotourism site [2]. According to [23], the experience of travellers includes interactions, both positive and negative, between tourists and tourism service providers. Understanding tourist behaviour that benefits the environment and destination performance is considered critical for the sustainable and successful management of ecotourism destinations [4].

## LITERATURE REVIEW

Ecotourism has emerged as a focal point for sustainable growth in tourism, particularly in locations abundant in natural resources and cultural heritage. In recent years, there has been considerable interest in ecotourism that promotes environmental conservation and enhances economic and social welfare. This study, centered on Selangor, Malaysia, examines the influence of tourism experiences and environmental beliefs on ecotourism destinations loyalty.

### Tourism Experience and Ecotourism Destination Loyalty

In tourism, loyalty is primarily examined as destination loyalty, as tourists perceive a destination as a product or brand, enabling them to revisit in the future. Destination loyalty is frequently assessed using metrics such as repeat visitation or aspirations to revisit. Given that destination loyalty is essential for a location's attractiveness, the factors influencing destination loyalty have been thoroughly examined (e.g. satisfaction, service quality, previous experience, involvement, perceived value, and place attachment). Enhancing destination loyalty is challenging, and the significance of destination loyalty has been scrutinized, as novelty-seeking plays a crucial role in destination choosing behavior [18]. The delight that is obtained from previous experiences is frequently the driving force behind this dedication, which in turn enhances the desire to return [19], [15]. Similarly, this holds true in the context of ecotourism. It illustrates that pleasurable holiday experiences significantly strengthen destination connection, fostering behavioral loyalty and emphasizing the necessity to return to ecotourism sites [19]. Comprehending the interaction of these factors is essential for tourism stakeholders aiming to create significant and sustainable tourist experiences that improve visitor satisfaction and community involvement [16], [27]. Consequently, based on the above, this study proposes the following hypothesis:

H1: Tourism experience positively influence ecotourism destination loyalty

### Environmental Beliefs and Ecotourism Destination Loyalty

Environmental beliefs refer to individuals' values, attitudes, and views regarding the environment and their responsibility for its preservation. These convictions significantly affect behaviour, especially within

ecotourism, where ecologically conscientious activities are essential to the tourism experience's identity and the sustainability of the associated natural resources [3], [26]. Tourists possessing robust environmental convictions are more inclined to participate in pro-environmental actions, including promoting conservation initiatives, selecting sustainable lodging, and reducing waste while travelling. Research indicates that a favourable environmental belief framework fosters intentions to return to eco-destinations, as these travellers deliberately pursue experiences that resonate with their principles [26]. Thus, the following hypothesis is proposed:

H2: Environmental beliefs positively influence ecotourism destination loyalty

### Mediating Role of Environmental Beliefs

Self-determination theory posits that individuals with a more ecologically conscious belief system exhibit heightened concern for environmental issues and an increased sense of environmental responsibility. This theory underlies the proposed model by suggesting that intrinsic motivation arising from meaningful tourism experiences can shape pro-environmental beliefs and behavior, thereby fostering destination loyalty. Consequently, their intrinsic motive will drive them to behave in accordance with that belief system. The environmental ideas developed through these interactions profoundly affect tourists' attachment to a destination. Tourists with robust environmental convictions are more inclined to partake in actions that demonstrate a dedication to sustainable practices, including returning to eco-friendly places and endorsing them to others [35]. Studies demonstrate that perceived environmental value and dedication to sustainability are closely associated with satisfaction and destination loyalty [32], [33]. Contentment derived from robust environmental convictions enhances loyalty, as seen by tourists' intent to endorse and revisit eco-friendly areas [25]. Favourable tourism experiences cultivate and strengthen environmental convictions, fostering loyalty to destinations that correspond with those convictions. This dynamic underscores the necessity for tourism operators to design experiences that foster environmental consciousness, so converting tourists into proponents of sustainable tourism practices [17], [22]. As a result, this study proposes the following hypothesis:

H3: Environmental beliefs mediates the relationship between tourism experience and ecotourism destination loyalty.

## METHODOLOGY

The study used a quantitative data collection strategy. The quantitative technique is successful when sample data is generalised and applied to the complete population to uncover patterns and trends [6]. Fig. 1 depicts the conceptual framework for this study. Latent variables influencing ecotourism destination loyal include tourism experience and environmental beliefs.

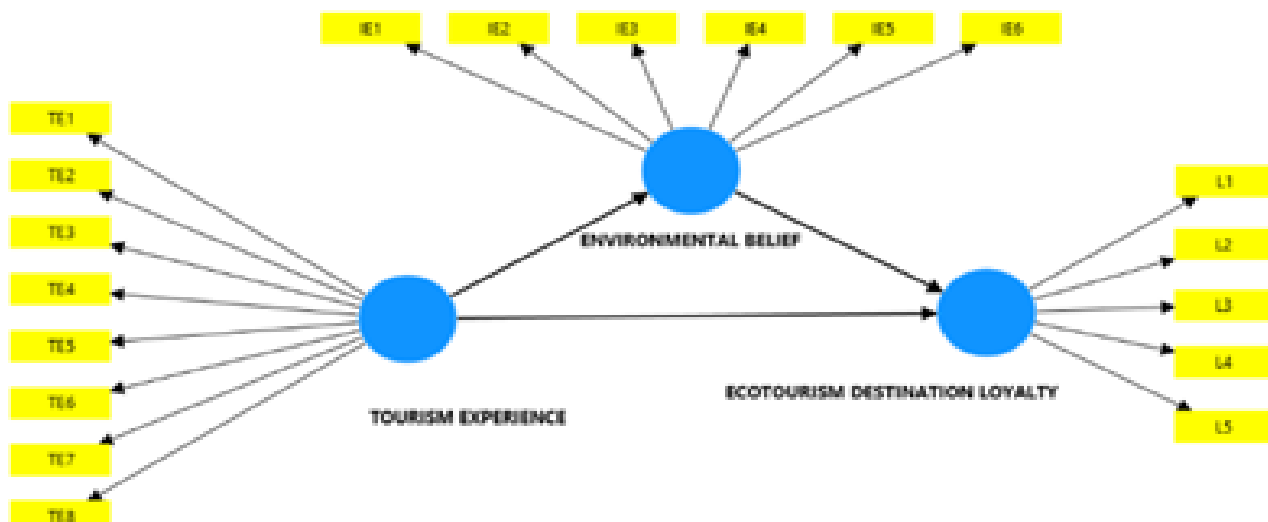


Fig. 1 Research Conceptual Framework

Following the construction of the conceptual framework, the research instrument was established. First, a highly organised questionnaire based on past research was created. There were four sections to the questionnaire: respondent profile, ecotourism destination loyalty, tourism experience, and environmental beliefs measurement. The components of each variable were derived from previously published studies, most notably Mengkebayaer et al., 2022, Zhou, M., & Wang, X., 2024, and Nguyen, H. M., & Nguyen, Y., 2023. The 18 items were graded on a seven-point Likert scale, with 1 being "strongly disagree" and 7 being "strongly agree." The fundamental motivation for utilising a multi-item construct was to assure a thorough examination while avoiding the disadvantages of using a single-item measure [21].

## Data Collection

A convenient sampling strategy and self-administered survey questions were utilised to collect data for this study. A convenient sampling strategy was employed due to access and time limitations. While practical, this approach limits the generalizability of results. The selected five ecotourism sites were chosen to represent a diverse cross-section of ecotourism types available in Selangor, including adventure, forest, and hiking tourism. Although the sample size of 251 is adequate, no formal power analysis was conducted to justify its statistical adequacy. The research gathered data from 251 participants across five ecotourism sites in Selangor, Malaysia. The destinations were classified by activity type: adventure-based activities at 4x4 Adventure Teratak Riverview, Hulu Selangor (19.9%) and Skytrex Sungai Chongkak, Hulu Langat (20.3%); hill hiking at Broga Hill, Hulu Langat (19.9%) and Paragliding Batu Pahat Hill (19.9%); and forest-based nature exploration at Kanching Eco Forest Park (19.9%).

The gender distribution of respondents indicated that males comprised 56.6%, whereas females represented 43.4%. The majority of participants were young adults, with 80.1% in the age range of 18 to 30 years. This was followed by 13.1% aged 31 to 40, 5.2% aged 41 to 50, and 1.6% aged 51 to 60. A significant proportion of the sample was single (82.9%), while 16.3% were married and 0.8% were divorced. Respondents were predominantly Malaysian, comprising 98.0%, while non-Malaysians accounted for 2.0%. Regarding educational attainment, 68.1% held a bachelor's degree, 13.9% possessed a diploma, 10.8% achieved a master's degree, and 6.0% completed secondary school. Employment status revealed that 51.4% were employed, 45.0% were students, 2.4% were self-employed, and less than 1% were either retired or unemployed.

Regarding income, 43.8% of respondents indicated no income, which likely reflects the significant presence of students in the sample. Others received incomes of RM2001–RM4000 (33.1%), RM1000–RM2000 (10.8%), RM4001–RM6000 (10.4%), and over RM6000 (2.0%). Over the past five years, 26.3% of individuals participated in ecotourism trips three to four times, 24.7% participated more than eight times, and 22.3% participated one to two times. In response to inquiries regarding travel companionship, the majority of participants indicated that they engaged in ecotourism trips with friends (65.7%), followed by family (6.4%) and partners (6.4%). A lesser proportion travelled independently or with clubs and tour groups. A majority (61.8%) did not remain overnight, while 23.1% stayed for one night. In terms of accommodation, the majority returned to their own homes (52.2%), while others resided in hostels (24.3%), tents (10.4%), or hotels (10.0%).

Regarding transportation, 58.6% utilised personal vehicles, 22.3% employed motorcycles, and 14.3% opted for rental cars. Social media has become the predominant source of pre-trip information, accounting for 55.0%, followed by friends, family, and the internet. TikTok was the most utilised platform, accounting for 50.2%, followed by Instagram at 23.9% and Facebook at 7.6%. Most respondents did not arrange transportation (70.9%) or accommodation (64.1%) in advance. The primary motivation for visiting was curiosity or the desire to explore the destination (33.5%), followed by exposure through advertisements (25.1%) and the destination's proximity (13.5%). In conclusion, a significant majority of respondents indicated a high level of satisfaction, with 87.6% reporting they were delighted and 12.0% stating they were satisfied with their ecotourism experience.

## Data Analysis

SmartPLS 4 was used in this study to assess data acquired from tourists who visited the ecotourism in Selangor. The evaluation of the Partial Least Squares-Structural Equation Modelling (PLS-SEM) and reporting of the results were based on the guidelines of [13] and [24].



## Assessment of Goodness of Measure

The seven-point Likert scale was used to quantify the variable items. The seven-point item scale was identified as the most effective overall, with respondents indicating it as the most precise and user-friendly [8]. Furthermore, creating a Likert scale is simple and is likely to yield a highly reliable scale; it is also simple to read and complete from the perspective of participants [30]. Finally, mechanisms for assessing variables such as ecotourism destination loyalty, tourism experience, and environmental beliefs were developed. Table 1 contains a summary of all of the constructs used in this study, including their definitions, sources, and total number of items.

Table I Properties of the Measurement Items

Construct	Definition	Source	No. of items
Ecotourism Destination Loyalty (EDL)	Destination loyalty is a complex notion that encompasses both behavioural and attitudinal aspects. The interaction between behavioural and attitudinal loyalty indicates that experiences resulting in high pleasure can foster both a commitment to return and a tendency to recommend, augmenting overall destination loyalty.	Mengkebayaer et al. (2022)	5
Tourism Experience (TE)	The tourism experience can be analysed through four essential dimensions: emotive, cognitive, behavioural, and sensory. These factors collectively affect tourists' perceptions and interactions with locations, considerably influencing their pleasure and propensity to return.	Zhou, M., & Wang, X. (2024)	8
Environmental Beliefs (EB)	Environmental beliefs refer to individuals' values, attitudes, and views regarding the environment and their responsibility for its preservation. These convictions significantly affect behaviour, especially within ecotourism, where ecologically conscientious activities are essential to the tourism experience's identity and the sustainability of the associated natural resources.	Nguyen, H. M., & Nguyen, Y. (2023)	3

## Reliability and Validity Analysis

The developed measurement model was subjected to validity and reliability testing. [13] defined consistency as the degree to which two measurements correlate well with one another. [13] proposed assessing convergent validity using factor loadings, composite reliability (CR), and average extracted variance (AVE). For optimal loading, [13] recommend a cut-off value more than 0.5 and a coefficient of determination (CR) greater than 0.7.

Internal consistency assesses the ability of scale items to correlate with other scale items intended to measure the same construct. The Cronbach's alpha (CA) test, with a lower limit of 0.70, is one method for confirming the measure's reliability (Hair et al., 2021). Cronbach alpha is utilised to represent the lower bound of internal consistency dependability, while the composite reliability score represents the upper bound of solid reliability [12]. Table 2 demonstrates that the EDL, TE, and EB of CA values are more than 0.7, as stated by [13]. [13] emphasized that CA always assumes all indicator loadings in the population are equal and overestimates internal consistency reliability. CA values for all constructs range from 0.872 to 0.917, i.e., over 0.70. As a result, the measures employed in this study are accurate and reliable.

Convergent validity is the degree to which several items correlate favourably with various measures of the same construct. [10] proposed the average variance extracted (AVE) as a standard criterion. [13] define the AVE as the grand mean value of the indicators' squared loadings, which is equivalent to a construct's communality. An AVE of 0.50, for example, explains more than half of the variance in its indicators [13]. An AVE less than 0.5, on the other hand, implies that there is more error in the items than the variation explained by the constructs. Table 2 highlights the measuring models' results. The results show that all of the structures

employed are valid measures of their respective constructs according to their parameter estimates and statistical significance.

Table II Results of the Measurement Models

Latent Variables	CA	CR	AVE
Ecotourism Destination Loyalty (EDL)	0.958	0.963	0.856
Environmental Beliefs (EB)	0.904	0.925	0.726
Tourism Experience (TE)	0.953	0.957	0.753

Source: Survey data

### Fornell-Larcker Criterion

Discriminant validity denotes how well the construct measures what it is supposed to measure. [13] define discriminant validity as the degree to which a notion is empirically distinct from other constructs. The way of determining discriminating validity is Fornell and Larcker's (1981) criterion. According to Fornell and Larcker's (1981) criterion, the concept shares the most variation with its indicators than any other construct. As a result, the outer loading on its assigned latent variable should be greater than the loadings on all other latent variables. Table 3 demonstrates that the estimated square root of the AVE exceeded the inter-correlations of the construct with the other constructs in the model, suggesting appropriate discriminant validity.

Table III Fornell-Larcker Criterion

	EDL	EB	TE
Ecotourism Destination Loyalty (EDL)	0.925		
Environmental Beliefs (EB)	0.594	0.852	
Tourism Experience (TE)	0.487	0.447	0.868

Source: Survey data

### Heterotrait-Monotraits Ratio (HTMT)

To investigate discriminant validity, [14] suggested the heterotrait-monotrait (HTMT) correlation ratio. An HTMT score that is significantly lower than one or definitely lower than 0.85 can illustrate the discriminant validity of a pair of constructs [14]. [14] recommend HTMT cut-off values of 0.90 or 0.85, however [31] found that an HTMT cut-off value of 0.75 was more helpful.

As a result, neither technique correctly identifies concerns with discriminant validity at the level of inter-construct correlations, which the majority of experts deem suggestive of discriminant validity. According to Table 4, the discriminant validity assessment based on HTMT revealed that all HTMT values were significantly lower than 0.75 [31]. As a result, for all constructs, a cautious cut-off point was utilised to test discriminant validity.

Table IV Heterotrait-Monotrait Ratio (HTMT)

Model Constructs	Ecotourism Destination Loyalty	Environmental Belief	Tourism Experience
Ecotourism Destination Loyalty (EDL)			
Environmental Beliefs (EB)	0.684		
Tourism Experience (TE)	0.499	0.472	
Note: HTMT <0.75			

Source: Survey data

## FINDINGS

The structural model was evaluated after successfully validating the measurement models. The coefficient of determination (R2) and path coefficients were used to evaluate the structural model. R2 is evaluated as the primary goal of PLS, which aims to maximise the variance elucidated in the endogenous variables. Furthermore, this study revealed and assessed the role of mediation in the research model.

The coefficient of determination (R2) is used to assess the model's prediction ability by measuring the squared correlation between the actual and predicted values of a specific endogenous component. It represents the combined impacts of endogenous latent variables on endogenous latent variables. There is no hard and fast rule for calculating the R2 value. The values 0.75, 0.50, and 0.25 represent significant, moderate, and weak prediction accuracy, respectively [11]. Meanwhile, [5] deems values of roughly 0.35 significant, approximately 0.333 moderate, and approximately 0.190 weak. Table 5 shows the result of R2. EDL and EB were considered to have a significant and moderate value of R2 of 68 percent and 45 percent, respectively, as explained by TE. R2 for TE was not available since it was a predictor variable in this study.

Table V Hypothesis Analysis

	R Square	Prediction
Ecotourism Destination Loyalty (EDL)	0.68	Strong predictive power
Environmental Beliefs (EB)	0.45	Moderate predictive power

The path coefficient denotes the proposed relationships between the constructions. The value range of -1 to +1 is standardised. A path coefficient near +1 suggests a strong positive relationship, whereas a value coefficient around -1 implies a negative relationship. The path coefficient value is practically statistically significant, closer to -1 or +1, depending on the standard error. Bootstrapping is a non-parametric technique for estimating model parameter standard errors [20]. Because PLS route modelling does not make use of distributional assumptions, direct inference statistical tests of model fit and model are not possible. [5] suggests using bootstrapping to tackle the problem. Fig. 2 depicts the structural model's route coefficient. Using a two-tailed test, the results show that all pathways were statistically significant (T Statistic > 1.96).

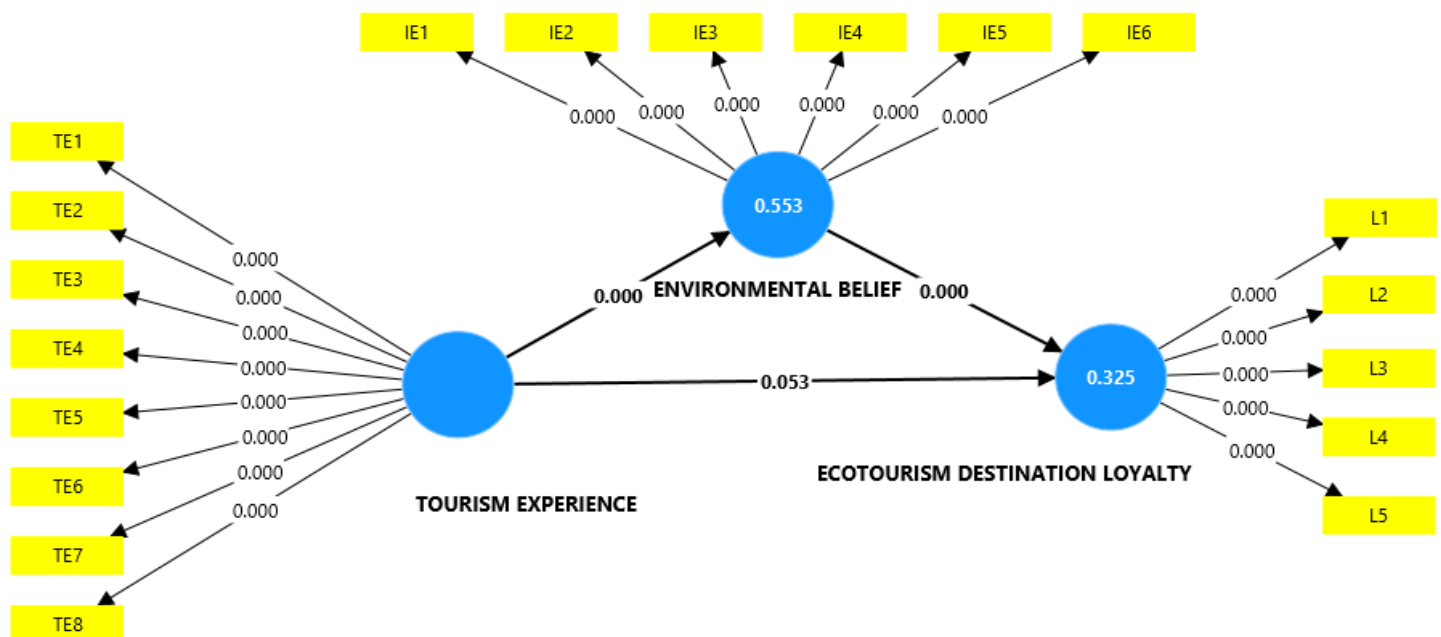


Fig. 2 The PLS Algorithm Result

## DISCUSSION

The structural model analysis is shown in Table 6. It revealed that H1, H2, and H3 hypotheses were all supported and significant at p 0.05.

Table Vi Hypothesis Analysis

Hypothesis	Relationship	Path Coefficient ( $\beta$ )	* t-value	** p-value	Decision
H1	Ecotourism Destination Loyalty (EDL)	0.55	6.21	0.000	Supported
H2	Environmental Beliefs (EB)	0.32	4.52	0.000	Supported
H3	Tourism Experience (TE)	0.15	3.29	0.001	Supported

H1: Tourism experience has a significant influence on ecotourism destination loyalty ( $\beta = 0.55$ ,  $p < 0.05$ ). It indicated that there is a significant influence of tourism experience on ecotourism destination loyalty. Understanding the interplay of these characteristics is crucial for tourism stakeholders seeking to develop meaningful and sustainable tourist experiences that enhance visitor satisfaction and community engagement [16], [27].

H2: Environmental beliefs has a significant influence on ecotourism destination loyalty ( $\beta = 0.32$ ,  $p < 0.05$ ). The finding indicated a significant influence of environmental beliefs on ecotourism destination loyalty. The finding supports the research by [3] and [26], which these principles profoundly influence behaviour, particularly in ecotourism, where environmentally responsible practices are integral to the identity of the tourism experience and the sustainability of the related natural resources.

H3: environmental beliefs mediate the relationship between tourism experience and ecotourism destination loyalty ( $\beta = 0.15$ ,  $p < 0.05$ ). This connection showed that environmental beliefs significantly mediates the relationship between tourism experience and ecotourism destination loyalty. This finding corresponds to the study by [17] and [22], that this relationship highlights the imperative for tourism operators to create experiences that promote environmental awareness, so transforming tourists into advocates of sustainable tourism practices. This result aligns with Li et al. (2021), who found that memorable tourism experiences significantly enhance place attachment and loyalty. It also extends SDT by demonstrating how intrinsic motivation mediates pro-environmental behavior in the tourism setting.

## CONCLUSION

This study investigated the direct influence of tourism experience and environmental beliefs on ecotourism destination loyalty in Selangor, Malaysia. This study found a positive and significant influence on a relationship between tourism experience and environmental beliefs with the ecotourism destination loyalty. Tourist destination developers should prioritize not just the economic benefits of tourism but also the value of public amenities and environmental considerations. The perceived environmental value factor is the main determinant of satisfaction, perceived value, and loyalty behaviour. Ecotourism site managers should develop targeted environmental education campaigns using platforms like TikTok, based on high usage observed among respondents. These campaigns can raise awareness and promote sustainable practices among younger tourists. Simultaneously, while ecotourism destination managers can enhance functional experiences by overseeing the ecological environment, medical services, supporting facilities, public security, and activity safety to ensure tourists perceive good value for money, they must maintain a balance between artificial supporting structures and ecological preservation.

This paper investigates the influences of tourism experience and environmental beliefs on ecotourism destination loyalty. The SEM of “tourism experience–environmental belief–ecotourism destination loyalty” is constructed. Environmental belief is a mediator that significantly influences ecotourism destination loyalty. Tourism experience has an inner effect and is conceptualized with functional value, contextual value, emotional value, cognitive value and economic value. It can be concluded that environmental beliefs play an important role in mediating the relationship between tourism experience and ecotourism destination loyalty [32], [33].

The finding underscores the crucial influence of the tourism experience on fostering travellers' attachment to ecotourism places. Favourable and unforgettable experiences can foster emotional bonds and enhance the likelihood of returning to or endorsing a destination. Environmental convictions, shaped by these experiences, further affect tourists' behavioural and attitudinal commitment by fostering enhanced environmental awareness



and responsibility. The mediating function of environmental ideas provides a more profound comprehension of how experiences convert into loyalty within sustainable tourism. Little research has examined this association, especially in ecotourism contexts like Malaysia. Consequently, additional empirical research is necessary to substantiate this mediating effect and offer insights for destination managers seeking to improve sustainable ecotourism growth.

This research has significantly advanced the field of ecotourism, although it possesses certain limitations. These include reliance on convenience sampling and the lack of foreign tourist representation. All survey participants were domestic visitors, highlighting the need for future studies to focus on foreign tourists. Subsequent research should consider using stratified or random sampling methods to better reflect the diversity of ecotourism participants, including foreign and elderly visitors. Additionally, this study omitted various non-environmental indicators; future research should incorporate factors such as waste management at tourist destinations to enhance the perceived environmental value. Performing a power analysis in subsequent studies would also increase confidence in the statistical validity of the findings.

Moreover, the research model could benefit from the inclusion of moderating or mediating variables—such as digital engagement, infrastructure quality, or perceived value—to offer a more comprehensive understanding of the factors influencing destination loyalty. Exploring digital engagement further may provide insights into how it reinforces tourist loyalty. A longitudinal approach may also be valuable in establishing causality and tracking changes in environmental perceptions over time. Given the heavy reliance on self-reported data, integrating observational methods or behavioural tracking (e.g., follow-up surveys or social media activity logs) could improve the study's validity. Lastly, the theoretical contributions of future study might be strengthened by comparing different conceptual frameworks, such as the value-belief-norm theory or the theory of planned behaviour, to better explain tourist loyalty..

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