

# Destination Loyalty: Integrating Holistic Destination Image and Tourism Experience in Ecotourism Perspective

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As ecotourism continues to gain momentum globally, understanding the psychological and experiential factors behind tourists' loyalty to nature-based destinations has become increasingly vital. This study investigates the impact of holistic destination image on ecotourism destination loyalty, with tourism experience acting as a mediating variable. Drawing on a quantitative approach, data were collected via a structured questionnaire from 251 respondents visiting five ecotourism sites across Selangor, Malaysia. SmartPLS 4 was employed to analyse the structural model, with confirmatory factor analysis confirming the constructs' reliability and validity. The findings reveal that a favourable holistic destination image significantly enhances tourism experiences, which in turn positively influences destination loyalty. This study offers critical insights for ecotourism stakeholders, emphasising the need to strategically shape holistic destination images that foster rich and memorable tourism experiences, ultimately leading to stronger loyalty. Policy makers and site managers should therefore prioritise creating immersive and emotionally engaging destination atmospheres to encourage repeat visits and sustainable tourism growth.

**Keywords:** visitor engagement, environmental conservation, cultural heritage, sustainable tourism, cognitive, emotional engagement

## 1. Introduction

As the demand for meaningful and sustainable travel continues to grow, ecotourism has emerged as a vital sector within the tourism industry. Increasingly, travellers are drawn not just by a destination's physical attributes but also by the emotional, cognitive, and symbolic meanings they associate with a place, collectively known as the holistic destination image. In Malaysia, and particularly in Selangor, a region blessed with both natural beauty and urban accessibility, ecotourism destinations offer rich experiences that appeal to environmentally conscious tourists. Holistic destination image encompasses various perceptions, including natural scenery, cultural authenticity, service quality, and emotional appeal. These images can significantly influence tourists' experiences and their subsequent loyalty to the destination. As Li et al. (2021) emphasised that ecotourism loyalty was most influenced by tourism experiences and holistic destination image. The pleasant experiences of individuals and their overall holistic perception of the place influenced their intention to visit further ecotourism sites, indicating that participants exhibited characteristics of 'soft' rather than 'hard' tourists regarding environmental commitment (Li et al., 2021).

Ecotourism loyalty is not formed in a vacuum. Instead, it is often developed through the mediating effects of the tourism experience—how a tourist feels, thinks, and behaves during and after their visit. A rich and immersive experience can translate a favourable image into deeper emotional attachment, satisfaction, and the intent to revisit or recommend the site. Zhou et al. (2023) found that the destination image and memorable tourism experiences somewhat mediated the relationship between the quality of cultural heritage renewal experiences and the intention to revisit. In addition, Cevdet Altunel and Erkut (2015) investigated the mediating role of experience quality and satisfaction in the relationship between engagement and recommendation intention. No previous study has examined the mediating role of tourism experience on the link between holistic destination image and ecotourism destination loyalty. Therefore, understanding the role of tourism experience as a mediator between holistic destination image and ecotourism destination loyalty is essential for effective destination planning and sustainable development.

Ecotourism has emerged as a focal point for sustainable tourism growth, particularly in locations abundant in natural resources and cultural heritage. Hence, this study aims to explore how holistic destination image influences loyalty to ecotourism destinations in Selangor, and whether this relationship is mediated by the tourism experience. The research findings will offer insights to policymakers, tourism marketers, and site managers on designing destination elements that enhance visitor engagement and long-term loyalty.

## 2. Literature Review

Ecotourism is often seen as a comprehensive solution that can effectively address economic development, environmental conservation, and community well-being, making it the most inclusive alternative plan (Khan et al., 2022). Ecotourism is commonly perceived as a form of tourism that focuses on relatively untouched natural places and the preservation of the environment rather than the more popular form of tourism in developed areas (Fang et al., 2018). The study emphasises the attractiveness of the notion. The research conducted by

Darda and Bhuiyan (2022) illustrates that the availability of jobs enhances the growth of ecotourism, the provision of homestay lodgings, and the opportunity for community engagement. It demonstrates that the indigenous communities perceive ecotourism development as a means to access employment opportunities and provide homestay accommodations for local residents.

### *2.1 Holistic Destination Image and Ecotourism Destination Loyalty*

The relationship between holistic destination image and ecotourism destination loyalty is a complex interplay that significantly influences tourists' intentions to revisit and recommend ecotourism sites. A comprehensive understanding of destination image includes both cognitive and affective components, shaped through various experiences and interactions throughout the tourist journey (Santoso et al., 2022). The role of multisensory experiences in forming destination images is critical; research indicates that these experiences impact tourists' perceptions and subsequently their loyalty intentions (Santoso et al., 2022).

Moreover, empirical studies show that positive changes in a destination's image during a tourist's visit are correlated with an increased likelihood of repeat visits. Tasci and Gil (2024) observed that a holistic image—encompassing both cognitive and affective dimensions—can influence perceptions and enhance satisfaction, thereby potentially increasing loyalty. This is further supported by evidence suggesting that a well-managed destination image resonates with tourists' expectations and experiences, and can lead to heightened loyalty (Azinuddin et al., 2022).

The concept of destination reputation stresses the significance of perceived value and ecological integrity in cultivating loyalty among ecotourists (Azinuddin et al., 2022). A robust destination reputation founded on sustainable practices not only enhances the overall image but also encourages pro-environmental behaviours among tourists, fostering a customer base that supports environmentally responsible tourism (Chen et al., 2024). Furthermore, findings by Hoang et al. (2022) highlight that motivation and satisfaction, influenced by a positive destination image, act as mediators in shaping loyalty among ecotourists.

Authenticity and engagement in the tourism experience are also crucial factors that enhance destination image and ensure satisfaction, ultimately bolstering loyalty (Uslu et al., 2024). By acknowledging these elements, stakeholders in ecotourism can strategically develop visitor experiences that strengthen emotional connections and promote long-term loyalty.

In summary, a nuanced approach integrating holistic destination image, satisfaction, motivation, and authentic experiences can significantly shape ecotourism destination loyalty. By emphasising the enhancement of the overall tourist experience and promoting sustainable practices, ecotourism destinations can improve their attractiveness and retain loyal visitors. Thus, it is hypothesised:

H1: Holistic destination image positively influences ecotourism destination loyalty

### *2.2 Holistic Destination Image and Tourism Experience*

The formulation of a holistic destination image is critical for enhancing tourism experiences

and fostering the attractiveness of destinations. Emerging research underscores that multisensory experiences significantly contribute to the formation of this image by integrating cognitive, affective, and conative elements, thereby reshaping travellers' perceptions and enhancing their emotional engagement with the destination (Santoso et al., 2022; Guachalla, 2021). For instance, multisensory extended reality technologies facilitate an immersive experience that aids in creating a comprehensive destination image and positively influences travellers' behavioural intentions. This aligns with the notion that emotional stimuli derived from factors such as theme music associated with a destination can profoundly impact tourists' travel intentions by constructing a favourable image of the location (Wei et al., 2023).

Furthermore, the dynamic evolution of destination image during the travel journey has been highlighted through longitudinal studies, indicating that cognitive and affective dimensions can change significantly as visitors engage with different aspects of the destination (Santoso et al., 2022; Bui et al., 2021). This suggests that the destination image is not static; rather, it is shaped by ongoing experiences before, during, and even after visits. Existing literature also stresses the role of digital content, particularly user-generated material, in offering insights into how destination images are constructed and perceived. User-generated content embodies a holistic view, integrating multiple stakeholders' perceptions and experiences.

In addition, the interplay between safety perceptions and destination image complicates destination marketing strategies. Tourists' safety perceptions affect their decisions and overall image of a destination, a factor that has become increasingly pertinent in the aftermath of global health crises (Lu & Atadil, 2021; Guijin & Jin-feng, 2022). Thus, a comprehensive understanding of safety, cultural, and emotional engagement factors is essential for destination managers looking to cultivate a positive and resilient image.

Finally, employing a holistic measurement framework for destination image that encompasses various dimensions—including sentiment analysis and assessment of social media content—can be instrumental in providing a nuanced understanding of travellers' perceptions (Mason et al., 2022). The integration of these methodologies contributes to a robust framework that identifies the attributes defining destination images while facilitating the alignment of marketing efforts with visitor expectations and experiences.

In summary, constructing a holistic destination image requires the convergence of multisensory experiences, dynamic engagement over time, and an understanding of safety considerations, all synthesised within a framework supported by user-generated content and social media analytics. This approach enhances the attractiveness of tourism destinations and ensures that marketing strategies effectively meet the evolving needs and perceptions of potential travellers. Therefore:

**H2:** Holistic destination image positively influences tourism experience.

### *2.3 Mediating Role of Tourism Experience*

The mediating role of tourism experience is vital in understanding consumer behaviour and engagement in the tourism sector. Tourism experiences are subjective and affective

impressions that create lasting memories for tourists, shaping their behaviours, motivations, and overall satisfaction during their trips (Setiawan et al., 2023; Zheng & Wu, 2023). A considerable amount of research has examined how various factors influence the quality of these experiences and how they subsequently affect tourists' intentions and behaviours.

Tourism experiences can be enhanced through the integration of technology, highlighting the importance of digital platforms and smart tourism technologies. For example, Liu et al. (2022) argue that tourism e-commerce features, such as live streaming, facilitate direct engagement between consumers and tourism products, fostering a unique flow experience that enhances trust and influences purchase intentions. Similarly, Zheng and Wu (2023) indicate that smart tourism technologies can positively impact well-being by providing memorable and fulfilling experiences that connect tourists more deeply with their destinations. This suggests that tourism technology plays a crucial role in shaping the experiential aspect of tourism, mediating the relationship between marketing elements and consumer engagement.

Moreover, flow experiences—described as optimal psychological states during immersive interactions—are significant mediators in various tourism contexts, including dark tourism. Lin et al. (2024) found that engaging storytelling in dark tourism can lead to a flow experience, positively influencing tourists' behavioural intentions. This implies that the quality of the experience provided, whether through storytelling or interactive technologies, affects tourists' emotional engagement and decision-making processes.

The unique attributes of a memorable tourism experience, as detailed by Setiawan et al. (2023), highlight its lasting impact on future travel intentions. Evidence suggests that if a tourism experience is memorable, it can foster loyalty and encourage repeat visitation, reinforcing the concept that experiential quality mediates consumer behaviour in tourism. This relationship between experience and consumer behaviour is further supported by studies emphasising the significance of service quality and perceived value, which together shape customer satisfaction and promote positive outcomes like recommendations and revisits (Zhou & Wang, 2024; Huang et al., 2024).

Furthermore, the impact of various digital tools on the tourism experience is substantial. Research by Preko et al. (2022) demonstrated that digital tourism applications significantly enhance the experience by enabling tourists to organise and share their travels, deepening the attachment to their travel narratives. This finding indicates that the richness of a tourist's experience is often mediated by their access to and interactions with digital resources, ultimately enhancing overall quality.

In conclusion, the mediating role of tourism experience is multidimensional, where factors such as technology, engagement, and service quality interconnect to affect consumer behaviour. The interplay among these elements underscores the importance of crafting memorable experiences, which can lead to increased satisfaction and loyalty within the tourism sector. Future research should continue to explore these mediations to offer deeper insights into enhancing tourism marketing strategies.

**H3:** Tourism experience mediates the relationship between holistic destination image and

ecotourism destination loyalty.

## 2.4 Proposed Research Framework

On the basis of the research hypotheses, a research model of the factors influencing ecotourism destination loyalty is constructed. The proposed research framework for this research is illustrated in Figure 1. Holistic destination image and tourism experience are considered latent variables that influence ecotourism destination loyalty.

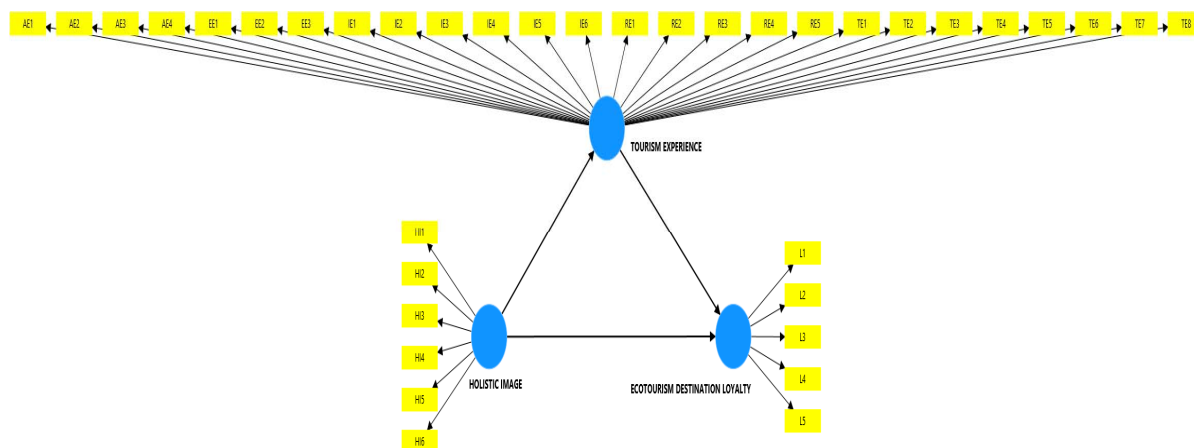


Figure 1. Proposed research framework

## 3. Methodology

This study employed a quantitative approach to investigate the relationship between holistic destination image, tourism experience, and ecotourism destination loyalty. Data were collected using a structured questionnaire administered to 251 tourists across five ecotourism destinations in Selangor, Malaysia. These locations were selected to represent a range of ecotourism experiences, including forest exploration, hill hiking, and adventure-based activities.

The survey consisted of four sections: demographic profile, holistic destination image, tourism experience, and ecotourism destination loyalty. Measurement items were adapted from validated scales in previous literature. Each item was rated on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The multi-item constructs ensured reliability and comprehensive measurement of each latent variable.

Data were analysed using SmartPLS 4. Confirmatory factor analysis (CFA) was conducted to assess the reliability and validity of each construct. Composite reliability (CR), Cronbach's alpha (CA), Average variance extracted (AVE), and discriminant validity (using Fornell-Larcker and HTMT criteria) were evaluated. The structural model was then tested using Partial Least Squares Structural Equation Modelling (PLS-SEM) with bootstrapping to assess the significance of path coefficients.



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 holistic destination image measurement. The components of each variable were derived from previously published studies, most notably Mengkebayaer et al. (2022), Zhou and Wang (2024), and Nguyen and Nguyen (2023). The 37 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 ensure a thorough examination while avoiding the disadvantages of using a single-item measure (Nguyen & Nguyen, 2023).

### *3.1 Data Collection*

This study employed a straightforward sampling approach and self-administered survey questions to gather data. The study collected data from 251 individuals at five ecotourism locations in Selangor, Malaysia. The destinations were categorised by activity type: adventure 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 breakdown of responses revealed that males constituted 56.6%, while females accounted for 43.4%. Most participants were young adults, comprising 80.1% of the 18 to 30-year age group. Subsequently, 13.1% were aged 31 to 40, 5.2% were aged 41 to 50, and 1.6% were aged 51 to 60. A substantial percentage of the sample was single (82.9%), whereas 16.3% were married and 0.8% were divorced. The respondents were primarily Malaysian, representing 98.0%, and non-Malaysians constituted 2.0%. In terms of educational attainment, 68.1% obtained a bachelor’s degree, 13.9% had a diploma, 10.8% earned a master’s degree, and 6.0% finished secondary school. Employment status indicated that 51.4% were employed, 45.0% were students, 2.4% were self-employed, and less than 1% were either retired or jobless.

Concerning income, 43.8% of respondents reported no income, perhaps due to the substantial representation of students in the sample. Others had incomes of RM2001–RM4000 (33.1%), RM1000–RM2000 (10.8%), RM4001–RM6000 (10.4%), and exceeding RM6000 (2.0%). In the last five years, 26.3% of respondents engaged in ecotourism trips three to four times, 24.7% participated more than eight times, and 22.3% took part one to two times. The majority of respondents reported participating in ecotourism trips with friends (65.7%), followed by family (6.4%) and partners (6.4%). A smaller percentage travelled alone or with organisations and tour groups. A majority (61.8%) did not stay overnight, whereas 23.1% stayed for one night. The majority of individuals returned to their own houses (52.2%), while others occupied hostels (24.3%), tents (10.4%), or hotels (10.0%).

In terms of transportation, 58.6% used personal vehicles, 22.3% utilised motorcycles, while 14.3% chose rented cars. Social media has emerged as the primary source of pre-trip information, comprising 55.0%, followed by friends, family, and the internet. TikTok was the



most utilised platform, comprising 50.2%, followed by Instagram at 23.9% and Facebook at 7.6%. A majority of respondents did not organise transportation (70.9%) or accommodation (64.1%) prior to their arrival. The major incentive for visitation was curiosity or the desire to discover the destination (33.5%), followed by exposure through ads (25.1%) and the destination's vicinity (13.5%). In conclusion, a substantial majority of respondents expressed a high degree of happiness, with 87.6% expressing they were happy and 12.0% indicating they were satisfied with their ecotourism experience.

### *3.2 Data Analysis*

This study employed SmartPLS 4 to analyse data obtained from tourists who visited the ecotourism sites in Selangor. The assessment of Partial Least Squares-Structural Equation Modelling (PLS-SEM) and the presentation of the findings according to the directives of Hair et al. (2014) and Paul and Roy (2023).

### *3.3 Assessment of Goodness of Measure*

A seven-point Likert scale was employed to quantify the variable items. The seven-point item scale was deemed the most effective overall, with respondents highlighting it as the most accurate and user-friendly (Diefenbach et al., 1993). Moreover, constructing a Likert scale is straightforward and is expected to provide a highly reliable instrument; it is also easy for participants to read and complete (Sulistiyorini et al., 2022). Ultimately, frameworks for evaluating characteristics such as ecotourism destination loyalty, tourism experience, and comprehensive destination image were established. Table 1 provides an overview of all constructions utilised in this investigation, encompassing their definitions, sources, and total item count.

Table 1. 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 & Wang (2024)	26
Holistic Destination Image (HDI)	The holistic image is formed by both cognitive and affective evaluations, which together reflect the overall impression a tourist has of a destination. This means it's not just about facts or knowledge (cognitive), but also the feelings or emotions (affective) that visitors associate with a place, both shape how a destination is perceived in its entirety.	Mengkebayaer et al. (2022)	6

### 3.4 Reliability and Validity Analysis

The constructed measurement model underwent rigorous testing for both validity and reliability. Consistency is defined as the extent to which two measurements correlate effectively with each other. Hair et al. (2014) suggested evaluating convergent validity through the analysis of factor loadings, composite reliability (CR), and average extracted variance (AVE). To achieve optimal loading, it is recommended to use a cut-off value exceeding 0.5 and a coefficient of determination (CR) greater than 0.7.

Internal consistency evaluates how well scale items correlate with one another when they are designed to measure the same construct. The Cronbach's alpha (CA) test, which has a lower threshold of 0.70, serves as a method for validating the reliability of the measure (Hair et al., 2021). Cronbach's alpha serves as an indicator of the minimum level of internal consistency reliability, whereas the composite reliability score indicates the maximum level of robust reliability (Hair et al., 2013). Table 2 indicates that the EDL, HDI, and TE of CA values exceed 0.7, as noted by Hair et al. (2021). Hair et al. (2014) highlighted that CA consistently presumes uniformity in all indicator loadings within the population, leading to an overestimation of internal consistency reliability. The CA values for all constructs are between 0.872 and 0.917, exceeding the threshold of 0.70. The measures utilised in this study demonstrate a high level of accuracy and reliability.

Convergent validity refers to the extent to which multiple items demonstrate a positive correlation with different measures of the same construct. Fornell and Larcker (1981) introduced the average variance extracted (AVE) as a benchmark criterion. The AVE is defined as the grand mean value of the squared loadings of the indicators, which corresponds to the communality of a construct. An AVE of 0.50, for instance, accounts for over 50% of the variance in its indicators (Hair et al., 2014). An AVE below 0.5 indicates that the error in the items exceeds the variation accounted for by the constructs. Table 2 presents the outcomes of the measurement models. The findings indicate that each of the structures utilised effectively represents its corresponding constructs, as evidenced by their parameter estimates and statistical significance.

Table 2. Results of the measurement models

Latent Variables	Cronbach's alpha	Average variance extracted (AVE)	Composite reliability (rho_c)
Ecotourism Destination Loyalty (EDL)	0.958	0.856	0.967
Holistic Destination Image (HDI)	0.961	0.838	0.969
Tourism Experience (TE)	0.967	0.553	0.97

Source: Survey data.

### 3.5 Fornell-Larcker Criterion

Discriminant validity refers to the effectiveness of a construct in accurately measuring its intended target. Discriminant validity is defined as the extent to which a concept is empirically separate from other constructs. The method for assessing discriminating validity is based on Fornell and Larcker's (1981) criterion. The concept exhibits the highest degree of variation with its indicators compared to any other construct, as per Fornell and Larcker's (1981) criterion. The outer loading associated with its designated latent variable must exceed the loadings of all other latent variables. Table 3 indicates that the estimated square root of the AVE surpassed the inter-correlations of the construct with other constructs in the model, implying suitable discriminant validity.

Table 3. Fornell-Larcker criterion

	Ecotourism Destination Loyalty	Holistic Destination Image	Tourism Experience
Ecotourism Destination Loyalty	0.925		
Holistic Destination Image	0.597	0.915	
Tourism Experience	0.611	0.649	0.744

Source: Survey data.

The Fornell-Larcker criterion (1981) was utilised to further assess discriminant validity. This criterion stipulates that the square root of the Average variance extracted (AVE) for each latent construct should exceed the correlations of that construct with other latent constructs. Table 3 displays the Fornell-Larcker matrix relevant to this study.

The diagonal displays the square roots of the AVE: 0.925 for ecotourism destination loyalty, 0.915 for holistic destination image, and 0.744 for tourism experience. The diagonal values exceed the corresponding inter-construct correlations represented by the off-diagonal values. For instance, the correlation between ecotourism destination loyalty and holistic destination image is 0.597, while the correlation between tourism experience and holistic destination image is 0.649.

The findings demonstrate that each construct exhibits a greater degree of variance with its respective indicators compared to other constructs within the model. This alignment fulfils the Fornell-Larcker criterion and suggests sufficient discriminant validity.

### *3.6 Heterotrait-Monotraits Ratio (HTMT)*

To assess discriminant validity, Hair et al. (2013) proposed the use of the heterotrait-monotrait (HTMT) correlation ratio. A significantly lower HTMT score than one, or definitively below 0.85, can demonstrate the discriminant validity between two constructs (Hair et al., 2013). While some sources suggest HTMT cut-off values of 0.90 or 0.85, others indicate that a cut-off value of 0.75 may provide greater utility. Consequently, both techniques fail to accurately pinpoint issues related to discriminant validity concerning inter-construct correlations, a factor that most experts consider indicative of discriminant validity. Table 4 indicates that the assessment of discriminant validity using HTMT showed all HTMT values were notably below 0.75 (Taherdoost, 2019). Consequently, a conservative cut-off point was employed to evaluate discriminant validity across all constructs.

Discriminant validity was assessed using the Heterotrait-Monotrait Ratio (HTMT) criterion as suggested by Henseler et al. (2015). HTMT values below the conservative threshold of 0.85 indicate that the constructs are empirically distinct from each other. As presented in Table 4, all HTMT values in this study are well below the 0.85 threshold. Specifically, the HTMT value between holistic destination image and ecotourism destination loyalty was 0.617, between tourism experience and ecotourism destination loyalty was 0.618, and between tourism experience and holistic destination image was 0.666.

Table 4. Heterotrait-Monotrait ratio (HTMT)

	Ecotourism Destination Loyalty	Holistic Destination Image	Tourism Experience
Ecotourism Destination Loyalty			
Holistic Destination Image	0.617		
Tourism Experience	0.618	0.666	

*Note.* HTMT < 0.85. Source: Survey data.

These results demonstrate that each construct possesses satisfactory discriminant validity, confirming that the latent variables measure conceptually distinct phenomena within the model. Thus, it can be concluded that the measurement model meets the requirements for discriminant validity.

#### 4. Results and Discussion

Upon satisfactory validation of the measurement models, the structural model can be assessed. The structural model was assessed using the coefficient of determination ( $R^2$ ) and path coefficients. This study discussed and analysed the mediation links within the research model.

The coefficient of determination ( $R^2$ ) evaluates the model's predictive capability by quantifying the squared correlation between actual and predicted values of a certain endogenous variable. It signifies the cumulative effects of endogenous latent variables on other endogenous latent variables. There is no definitive guideline for estimating the  $R^2$  value. The values 0.75, 0.50, and 0.25 denote strong, moderate, and weak predictive accuracy, respectively (Hair et al., 2014). Chin (2010) considers values around 0.35 to be substantial, approximately 0.333 to be moderate, and around 0.190 to be weak. Table 5 presents the outcome of  $R^2$ . EDL and TE exhibited significant and moderate  $R^2$  values of 44.2 per cent and 42.1 per cent, respectively, as elucidated by HDI.  $R^2$  for HDI was unavailable as it served as a predictor variable in this investigation.

Table 5. Coefficient of Determination ( $R^2$ )

	R Square
Ecotourism Destination Loyalty (EDL)	0.442
Tourism Experience (TE)	0.421

Chin (2010) and Hair et al. (2021) categorise  $R^2$  values of 0.75, 0.50, and 0.25 as substantial, moderate, and weak, respectively. Consequently, the  $R^2$  values observed in this study are situated within a moderate explanatory range, indicating that the model exhibits a satisfactory level of predictive capability for both dependent constructs.

The path coefficient indicates the suggested links among the constructs. The value range is standardised from -1 to +1. A route coefficient closes to +1 indicates a robust positive

correlation, while a coefficient approaching -1 denotes a negative correlation. The route coefficient value is nearly statistically significant, approaching -1 or +1, contingent upon the standard error. Bootstrapping is a non-parametric method for estimating the standard errors of model parameters (Mooney & Duval, 1993). Due to the absence of distributional assumptions in PLS route modelling, straightforward inferential statistical tests for model fit and evaluation are unfeasible. Chin (2010) advocates employing bootstrapping to address the issue. Figure 2 illustrates the route coefficient of the structural model.

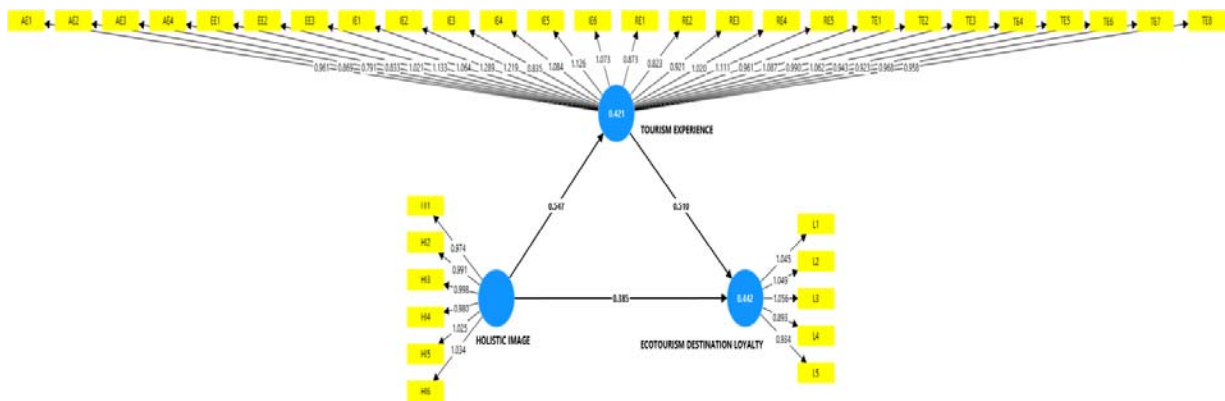


Figure 2. The PLS Algorithm Result

The structural model analysis is shown in Table 6. It revealed that H1, H2, and H3 hypotheses were all supported and significant at  $p < 0.05$ . The bootstrapping procedure was employed for hypothesis testing, utilising 5,000 subsamples in SmartPLS. Given that the proposed relationships were directional, with an expectation of positive effects, a one-tailed test was utilised. Table 5 presents the results, which include beta coefficients, t-values, and p-values.

Table 6. Hypothesis analysis

Hypothesis	Hypothesised Path	Beta Coefficient	t-value	p-value	Result
H1	HDI → TE	0.547	2.828	0.002	Supported
H2	TE → EDL	0.51	3.165	0.001	Supported
H3	HDI → EDL	0.385	2.828	0.002	Supported

The relationship between holistic destination image (HDI) and tourism experience (TE) (H1) was determined to be statistically significant, indicated by a beta coefficient of 0.547, a t-value of 2.828, and a p-value of 0.002. Consequently, H1 is validated. This finding suggests that a comprehensive destination image significantly influences tourists' overall experience. An effective and comprehensive portrayal of an ecotourism destination cultivates meaningful and lasting experiences, subsequently increasing the perceived worth of the visit. This aligns with previous studies highlighting the significance of destination branding and emotional resonance in developing impactful tourism experiences (Lacerda et al., 2022; Sanjaya et al.,

2024).

The connection between tourism experience and ecotourism destination loyalty (H2) was found to be significant ( $\beta = 0.510$ ,  $t = 3.165$ ,  $p = 0.001$ ), thereby providing support for H2. The findings indicate that superior tourism experiences have a direct impact on tourists' loyalty to ecotourism destinations. When visitors experience authenticity, engagement, and satisfaction, their likelihood of returning and recommending the destination to others increases. This finding is consistent with earlier research that highlights the significance of experience-driven loyalty development within sustainable tourism frameworks (Araújo et al., 2022; Sahabuddin et al., 2021).

The analysis of the direct effect of holistic destination image on ecotourism destination loyalty (H3) produced a beta coefficient of 0.385, accompanied by a t-value of 2.828 and a p-value of 0.002, which provides robust statistical evidence for H3. This finding indicates that a robust and favourable destination image directly contributes to increased loyalty among ecotourists. The way a destination is perceived, encompassing its environmental attractiveness, quality of service, and general ambience, plays a significant role in influencing visitors' intentions to revisit and engage in conservation initiatives. The finding aligns with research that emphasises destination image as a critical factor in developing loyalty behaviours in nature-based tourism (Huang et al., 2024; Zhou & Wang, 2024; Latip et al., 2021).

The results indicate that all proposed hypotheses are validated through a one-tailed test at a 5% significance level, as evidenced by a critical t-value exceeding 1.65. The findings underscore the substantial and beneficial impacts of holistic destination image and tourism experience on loyalty towards ecotourism destinations.

The results endorse the idea that ecotourism, when integrated with effective strategies for economic growth and sustainable ecosystems, can substantially enhance the well-being of local communities. Ecotourism serves as a catalyst for sustainable regional development by empowering local stakeholders, encouraging environmental stewardship, and promoting inclusive economic growth. These implications are crucial for policymakers seeking to reconcile tourism growth with the socio-economic and ecological sustainability of rural destinations.

## **5. Conclusion**

This study explores the influence of holistic destination image on ecotourism destination loyalty and examines the mediating role of tourism experience in this relationship. The findings indicate that a well-crafted and favourable holistic image significantly enhances the quality of tourism experiences, which in turn fosters strong loyalty to ecotourism destinations. For practitioners, this underscores the importance of managing destination image in a comprehensive manner—incorporating emotional, cognitive, and sensory elements—to ensure positive and memorable experiences for visitors.

The results suggest that while image building is essential, it must be supported by authentic, emotionally engaging, and meaningful experiences to convert visitors into loyal advocates.



Consequently, tourism stakeholders in Selangor and other ecotourism hotspots should focus on creating immersive, eco-conscious, and visitor-centric environments that encourage sustainable loyalty. Future studies should consider additional mediators or moderators such as environmental attitudes, place attachment, or social media influence to further enrich the understanding of destination loyalty in ecotourism contexts.

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### References

- Araújo, A., Marques, I., Candeias, T., & Vieira, A. (2022). Willingness to pay for sustainable destinations: A structural approach. *Sustainability*, *14*(5), 2548. <https://doi.org/10.3390/su14052548>
- Azinuddin, M., Mohammad Nasir, M. B., Hanafiah, M. H., Mior Shariffuddin, N. S., & Kamarudin, M. K. A. (2022). Interlinkage of perceived ecotourism design affordance, perceived value of destination experiences, destination reputation, and loyalty. *Sustainability*, *14*(18), 11371. <https://doi.org/10.3390/su141811371>
- Bui, V., Alaei, A., Vu, H., Li, G., & Law, R. (2021). Revisiting tourism destination image: a holistic measurement framework using big data. *Journal of Travel Research*, *61*(6), 1287–1307. <https://doi.org/10.1177/00472875211024749>
- Cevdet Altunel, M., & Erkut, B. (2015). Cultural tourism in Istanbul: The mediation effect of tourist experience and satisfaction on the relationship between involvement and recommendation intention. *Journal of Destination Marketing and Management*, *4*(4), 213–221. <https://doi.org/10.1016/j.jdmm.2015.06.003>
- Chen, Y., Zhang, S., Peng, P., Fan, S., Liang, J., Ye, J., ... Ma, Y. (2024). Formation mechanism of tourists' pro-environmental behavior in Wuyishan National Park, China, based on ecological values. *Forests*, *15*(5), 777. <https://doi.org/10.3390/f15050777>
- Chin, W. W. (2010). *How to write up and report PLS analyses*. In V. Esposito Vinzi, W. W. Chin, J. Henseler & H. Wang (Eds.), *Handbook of partial least squares: Concepts, methods and application* (pp. 645–689). New York, NY: Springer. [https://doi.org/10.1007/978-3-540-32827-8\\_29](https://doi.org/10.1007/978-3-540-32827-8_29)
- Darda M. A., & Bhuiyan M. A. H. (2022) A Structural Equation Model (SEM) for the socio-economic impacts of ecotourism development in Malaysia. *Plos One*, *17*(8), e0273294. <https://doi.org/10.1371/journal.pone.0273294>
- Diefenbach, M. A., Weinstein, N. D., & O'Reilly, J. (1993). Scales for assessing perceptions of health hazard susceptibility. *Health Education Research*, *8*, 181–192. <https://doi.org/10.1093/her/8.2.181>

- Fang, W.-T., Lien, C.-Y., Huang, Y.-W., Han, G., Shyu, G.-S., Chou, J.-Y., & Ng, E. (2018). Environmental Literacy on Ecotourism: A Study on Student Knowledge, Attitude, and Behavioral Intentions in China and Taiwan. *Sustainability*, 10(1886), 1–22. <https://doi.org/10.3390/su10061886>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement errors. *Journal of Marketing Research*, 18, 39–50. <https://doi.org/10.1177/002224378101800104>
- Guachalla, A. (2021). Plant-based diets and destination image: a holistic approach. *Journal of Tourism and Cultural Change*, 20(1–2), 157–176. <https://doi.org/10.1080/14766825.2021.1876717>
- Guijin, D., & Jin-feng, W. (2022). Influence of tourism safety perception on destination image: a case study of Xinjiang, China. *Sustainability*, 14(3), 1663. <https://doi.org/10.3390/su14031663>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage, Thousand Oaks, CA. <https://doi.org/10.1007/978-3-030-80519-7>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial Least Squares Structural Equation Modeling: Rigorous Applications, Better Results and Higher Acceptance. *Long Range Planning*, 46(1–2), 1–12. <https://doi.org/10.1016/j.lrp.2013.01.001>
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106–121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modelling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Hoang, S., Nguyen, D., & Phạm, M. (2022). Factors affecting ecotourism loyalty with the moderating role of social influence - empirical evidence in Vietnam. *Geojournal of Tourism and Geosites*, 43(3), 946–954. <https://doi.org/10.30892/gtg.43314-908>
- Huang, M., Li, Y., Ho, P., & Huang, H. (2024). A study on the impact of cruise tourism experience on satisfaction, revisit behavior, and consumer spending behavior. *Advances in Management and Applied Economics*, 14(6), 1–18. <https://doi.org/10.47260/amae/1461>
- Khan, M. M., Siddique, M., Yasir, M., Qureshi, M. I., Khan, N., & Safdar, M. Z. (2022). The Significance of Digital Marketing in Shaping Ecotourism Behaviour through Destination Image. *Sustainability*, 14(7395), 1–18. <https://doi.org/10.3390/su14127395>
- Lacerda, P., Freitas, R., & Kiyotani, I. (2022). Itineraries beyond tourism: experiences with a local community in Petrolândia-pe. *Applied Tourism*, 7(1), 34–39. <https://doi.org/10.14210/at.v7n1.p34-39>

- Latip, N., Karim, R., Jaafar, M., Marzuki, A., Ahmad, A., Abdullah, S., ... Umar, M. (2021). Kinabalu national park, unesco world heritage site: assessment of environmental issues, tourist satisfaction and park management. *Planning Malaysia*, 19. <https://doi.org/10.21837/pm.v19i19.1060>
- Li, T., Liu, F., & Soutar, G. N. (2021). Experiences, post-trip destination image, satisfaction and loyalty: A study in an ecotourism context. *Journal of Destination Marketing and Management*, 19, 100547. <https://doi.org/10.1016/j.jdmm.2020.100547>
- Lin, Z., Zhang, S., & Yhang, W. (2024). Storytelling in dark tourism: the role of flow experience and national identity. *Sage Open*, 14(2). <https://doi.org/10.1177/21582440241257159>
- Liu, X., Zhang, L., & Chen, Q. (2022). The effects of tourism e-commerce live streaming features on consumer purchase intention: the mediating roles of flow experience and trust. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.995129>
- Lu, Q., & Atadil, H. (2021). Do you dare to travel to China? An examination of China's destination image amid the Covid-19. *Tourism Management Perspectives*, 40, 100881. <https://doi.org/10.1016/j.tmp.2021.100881>
- Mason, P., Augustyn, M., & Seakhoa-King, A. (2022). Tourism destination quality and the unsustainable development goals: tourism agenda 2030. *Tourism Review*, 78(2), 443–460. <https://doi.org/10.1108/TR-05-2022-0259>
- Mengkebayaer, M., Nawaz, M., & Sajid, M. (2022). Eco-destination loyalty: Role of perceived value and experience in framing destination attachment and equity with moderating role of destination memory. *Frontier Psychology*, 13, 908798. <https://doi.org/10.3389/fpsyg.2022.908798>
- Mooney, C., & Duval, R. (1993). *Bootstrapping: A non-parametric approach to statistical inference*. Newbury Park, CA: Sage. <https://doi.org/10.4135/9781412983532>
- Nguyen, H. M., & Nguyen, Y. (2023). Do perceptions of destination social responsibility contribute to environmentally responsible behavior? A case study in Phu Quoc, Vietnam. *Sustainability*, 15(22), 15803. <https://doi.org/10.3390/su152215803>
- Paul, I., & Roy, G. (2023). Tourist's engagement in eco-tourism: A review and research agenda. *Journal of Hospitality and Tourism Management*, 54, 316–328. <https://doi.org/10.1016/j.jhtm.2023.01.002>
- Preko, A., Amoako, G., Dzogbenuku, R., & Kosiba, J. (2022). Digital tourism experience for tourist site revisit: an empirical view from Ghana. *Journal of Hospitality and Tourism Insights*, 6(2), 779–796. <https://doi.org/10.1108/JHTI-10-2021-0294>
- Sahabuddin, M., Tan, Q., Hossain, I., Alam, M., & Nekmahmud, M. (2021). Tourist environmentally responsible behavior and satisfaction; study on the world's longest natural sea beach, Cox's Bazar, Bangladesh. *Sustainability*, 13(16), 9383. <https://doi.org/10.3390/su13169383>

- Sanjaya, D., Arief, M., Setiadi, N., & Heriyati, P. (2024). Exploring the role of digital green marketing campaigns and environmental beliefs in shaping tourist behavior and revisit intentions in eco-tourism. *Journal of Eastern European and Central Asian Research*, 11(3), 553–572. <https://doi.org/10.15549/jeecar.v11i3.1693>
- Santoso, H., Wang, J., & Windasari, N. (2022). Impact of multisensory extended reality on tourism experience journey. *Journal of Hospitality and Tourism Technology*, 13(3), 356–385. <https://doi.org/10.1108/JHTT-01-2021-0036>
- Setiawan, R., Garliani, G., Berliani, S., & Yuliawati, Y. (2023). City image model in creating tourist engagement. *Kne Social Sciences*. <https://doi.org/10.18502/kss.v8i12.13702>
- Sulistiyorini, I., Allo, J., Edwin, M., & Rosdianto, R. (2022). Assessment of lake tourism object as ecotourism destination in Merabu, Berau Regency, East Kalimantan. *Jurnal Sylva Lestari*, 10(1), 155–166. <https://doi.org/10.23960/jsl.v10i1.554>
- Taherdoost, H. (2019). What is the best response scale for survey and questionnaire design; Review of different lengths of rating scale/attitude scale / likert scale. *International Journal of Academic Research in Management*, 8(1), 2296–1747. Retrieved from <https://hal.archives-ouvertes.fr/hal-02557308>
- Tasci, A., & Gil, S. (2024). Destination image change through the course of a visit: a longitudinal study. *Consumer Behavior in Tourism and Hospitality*, 19(4), 497–515. <https://doi.org/10.1108/CBTH-01-2024-0004>
- Uslu, A., Virto, N., Eren, R., & López, M. (2024). The role of authenticity, involvement and experience quality in heritage destinations. *Tourism & Management Studies*, 20(3), 79–91. <https://doi.org/10.18089/tms.20240306>
- Wei, L., Shao, T., Shi, X., Ren, K., & Qian, Y. (2023). The lure of siren’s song: exploring the influence of destination song perception on potential tourists’ travel intentions. *Plos One*, 18(8), e0283615. <https://doi.org/10.1371/journal.pone.0283615>
- Zheng, Y., & Wu, Y. (2023). An investigation of how perceived smart tourism technologies affect tourists’ well-being in marine tourism. *Plos One*, 18(8), e0290539. <https://doi.org/10.1371/journal.pone.0290539>
- Zhou, M., & Wang, X. (2024). An analysis of the relationship linking immersive tourism experience escape and emotional experience to tourists’ behavioral intentions. *Sustainability*, 16(17), 7598. <https://doi.org/10.3390/su16177598>
- Zhou, Q., Pu, Y., & Su, C. (2023). The mediating roles of memorable tourism experiences and destination image in the correlation between cultural heritage rejuvenation experience quality and revisiting intention. *Asia Pacific Journal of Marketing and Logistics*, 35(6), 1313–1329. <https://doi.org/10.1108/APJML-11-2021-0829>

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