Integrating the Theory of Planned Behaviour and the Expectation-Confirmation Theory to Explain Domestic Tourists' Revisit Intention: Evidence from Cameron Highlands, Malaysia

Mohd Yuhafidz Mohd Yusof[1]* , Nik Anis Sazwani binti Nik Abdullah[2] ,Noraida binti Ayub[3], Hazrin bin Mohd Yusoff[4]

[1,2,3]Faculty of Business UNITAR University College Kuala Lumpur

[4]School of Media, Art & Design, Animation Department UNITAR International University

DOI: https://doi.org/10.47772/IJRISS.2026.101000135

Received: 09 September 2026; Accepted: 14 September 2026; Published: 30 October 2026

ABSTRACT

Understanding why tourists decide to return to a destination requires theoretical frameworks that capture both the cognitive, control-oriented dimensions of behavioural intention and the affective, expectation-based dimensions of post-consumption evaluation. This study integrates Ajzen's (1991) Theory of Planned Behaviour (TPB) with Oliver's (1980) Expectation-Confirmation Theory (ECT) to explain local tourists' revisit intention to Cameron Highlands, Malaysia, treating value perception, safety and security, and destination accessibility as control-belief-relevant destination attributes, and tourist satisfaction as the expectation-confirmation mechanism linking these attributes to behavioural intention. Data collected from 200 domestic tourists using a structured questionnaire and analysed using confirmatory factor analysis and structural equation modelling. The integrated model demonstrated good fit to the data. Consistent with TPB, value perception, safety and security, and destination accessibility each exerted significant effects on tourist satisfaction, functioning as control-belief-relevant antecedents. Consistent with ECT, tourist satisfaction, as the expectation-confirmation construct, significantly predicted revisit intention and mediated the effects of all three antecedents, with the mediation pattern varying by attribute: partial mediation for value perception and safety and security, but full mediation for destination accessibility. These results demonstrate that TPB and ECT are not competing explanations of tourist behaviour but complementary accounts that operate jointly, and in attribute-specific combinations, to shape revisit intention. The findings extend the applied scope of both theories to Malaysian highland ecotourism and offer a theoretically grounded account of why some destination improvements translate into loyalty more directly than others.

Keywords: Theory of Planned Behaviour, Expectation-Confirmation Theory, tourist satisfaction, revisit intention, structural equation modelling

INTRODUCTION

Explaining tourist revisit intention has long occupied two partially overlapping streams of behavioural theory. The first stream, exemplified by Ajzen's (1991) Theory of Planned Behaviour (TPB), models behavioural intention as the outcome of attitudes, subjective norms, and perceived behavioural control, offering a cognitively oriented account of how individuals form intentions to act. The second stream, exemplified by Oliver's (1980) Expectation-Confirmation Theory (ECT), models post-consumption behaviour as the outcome of the degree to which actual experience confirms or disconfirms pre-consumption expectations, offering an affectively oriented account centred on satisfaction. Although both theories have independently accumulated substantial empirical support in tourism research (Lam & Hsu, 2006; Seow et al., 2024), comparatively few studies have explicitly tested how the two frameworks operate jointly within a single structural model, and fewer still have examined whether their combined explanatory contribution is uniform across different types of destination attributes.

This study addresses this gap using data from 200 local tourists to Cameron Highlands, Malaysia, a highland ecotourism destination that attracted 1.38 million visitors in 2024 (Malaysia Tourism Statistics, 2024) but faces ongoing sustainability pressures related to congestion, overcrowding, and infrastructure strain (Utama et al., 2021; Marzo et al., 2023). By modelling value perception, safety and security, and destination accessibility as TPB-relevant control-belief attributes, and tourist satisfaction as the ECT-relevant expectation-confirmation mechanism, this study tests whether an integrated TPB-ECT framework offers a more complete account of revisit intention than either theory would offer alone, and whether the balance between the two theoretical mechanisms, direct TPB-consistent pathways versus indirect ECT-consistent pathways, differs across destination attributes. The research objectives are as follows: 1) To test whether value perception, safety and security, and destination accessibility function as TPB-consistent, direct predictors of revisit intention, 2) To test whether tourist satisfaction functions as the ECT-consistent expectation-confirmation mechanism mediating the relationship between destination attributes and revisit intention and 3) To determine whether the relative balance between TPB-consistent direct effects and ECT-consistent indirect effects differs systematically across value perception, safety and security, and destination accessibility.

This study contributes to tourism behavioural theory by providing an explicit empirical test of TPB-ECT integration, rather than treating the two frameworks as interchangeable or additive without examination of their differential operation. For destination managers, understanding which attributes operate primarily through direct, attitude-based pathways and which operate primarily through satisfaction-mediated pathways offers a more precise basis for sequencing and prioritizing destination improvement initiatives.

LITERATURE REVIEW

Theory of Planned Behaviour and Tourist Revisit Intention

Developed by Ajzen (1991), TPB proposes that behavioural intention is primarily determined by attitude toward behaviour, subjective norms, and perceived behavioural control. In tourism, the theory is particularly relevant because the decision to revisit a destination involves an individual evaluation of the expected benefits of the behaviour, social influences surrounding the decision, and the perceived ability to undertake the behaviour. Consequently, revisit intention can be understood as a planned behavioural response arising from tourists' cognitive evaluations of a destination and their perceived control over returning to it.

The application of TPB to tourism has increasingly moved beyond the original three psychological determinants by incorporating destination-related factors that can strengthen the explanatory capacity of the framework. For example, Abbasi et al. (2021) extended TPB by incorporating perceived value, destination image, perceived risk, service quality and tourist satisfaction to explain revisit intention to Penang Hill. Their findings demonstrated that perceived behavioural control, perceived value and satisfaction significantly influenced revisit intention, while satisfaction also mediated the relationships between perceived value and revisit intention and between other destination-related attributes and revisit intention. This finding indicates that destination attributes can influence revisit decisions both through tourists' direct evaluations and through their subsequent assessment of the tourism experience.

More recent evidence further supports the relevance of TPB in explaining revisit intention. Liu et al. (2024), for example, developed an extended TPB framework incorporating event quality and tourist satisfaction to explain tourists' revisit intention. Based on data from 491 domestic tourists, the study found significant positive effects of attitude, subjective norms, perceived behavioural control, event quality and satisfaction on revisit intention. Importantly, event quality also exerted an indirect effect on revisit intention through tourist satisfaction, demonstrating that satisfaction can function as an important mechanism within an extended TPB framework. Similarly, Selwendri et al. (2024), in a study of Indonesian consumers undertaking medical tourism in Malaysia, found that subjective norms, perceived behavioural control and customer satisfaction significantly influenced revisit intention, while satisfaction mediated the effects of perceived value and destination image on revisit intention.

These findings suggest that TPB can provide a useful cognitive explanation of revisit intention while allowing destination-specific attributes to be incorporated into the framework. In the present study, value perception,

safety and security, and destination accessibility are therefore conceptualised as destination attributes that may shape tourists' evaluations of revisiting Cameron Highlands. These attributes are particularly relevant because they reflect tourists' assessment of the benefits, risks and practical feasibility associated with returning to the destination. Their inclusion allows the study to examine whether destination characteristics exert direct effects on revisit intention consistent with the behavioural logic of TPB.

Perceived Value, Safety and Accessibility as Destination Attributes

Destination attributes represent tourists' evaluations of specific characteristics that shape the attractiveness and feasibility of a destination. Among the various attributes examined in tourism research, perceived value, safety and security, and accessibility are particularly important because they capture three distinct aspects of the destination experience: the benefits tourists perceive relative to their sacrifices, the degree of confidence and risk associated with visiting, and the practical ease of reaching and moving within the destination.

Perceived value refers to tourists' overall evaluation of the benefits obtained from a tourism experience relative to the costs or sacrifices involved. Zeithaml (1988) conceptualised perceived value as a consumer's overall assessment of the utility of a product or service based on perceptions of what is received and what is given. In tourism, this evaluation may include monetary costs, time, convenience, service quality, experience and the psychological benefits obtained from visiting a destination. Perceived value is therefore relevant to revisit intention because tourists who believe that a destination provides worthwhile benefits relative to the resources invested may be more willing to return. Wang and Li (2023), through a meta-analysis of tourist loyalty research, further demonstrated the importance of perceived value among the factors associated with tourist loyalty. Recent tourism research has also continued to identify perceived value as an important determinant of satisfaction and subsequent repeat behavioural intention.

The relevance of perceived value is particularly evident in extended TPB models. Abbasi et al. (2021) found that perceived value significantly influenced both satisfaction and revisit intention, suggesting that value can operate through direct and indirect mechanisms. This is important for the present study because it suggests that tourists may decide to revisit Cameron Highlands not only because they are satisfied with the destination but also because they independently perceive the overall tourism experience as worthwhile.

Safety and security represent another important destination attribute. Tourism involves exposure to unfamiliar environments, transportation systems, physical locations and social situations, meaning that tourists' perceptions of safety can influence their willingness to undertake or repeat travel behaviour. Safety perceptions may include confidence in personal security, protection from crime, environmental risks, transportation risks and the general ability to enjoy the destination without excessive concern. George (2010) demonstrated the importance of perceived safety and risk in tourists' evaluations of destinations, while more recent tourism research continues to identify safety and perceived risk as relevant factors in revisit decision-making. In the Malaysian tourism context, Jamalludin (2022) similarly examined perceived safety alongside social influence in explaining domestic tourists' revisit intention.

Destination accessibility concerns the ease with which tourists can reach, enter and move around a destination. Accessibility can involve transportation infrastructure, road conditions, travel time, connectivity, signage, availability of public transportation and the convenience of movement within the destination. Accessibility is particularly important for highland destinations such as Cameron Highlands because geographical characteristics and transportation conditions can influence tourists' perceptions of travel convenience. Recent research has continued to recognise accessibility as an important dimension of destination image and tourism experience. Leiras et al. (2025), for example, examined accessible tourist destinations and highlighted the importance of perceived accessibility in tourists' evaluation of destination characteristics.

Importantly, perceived value, safety and security, and accessibility are not necessarily expected to influence revisit intention through identical mechanisms. Perceived value may directly affect whether tourists consider returning to be worthwhile, while safety and security may influence their confidence in repeating the travel decision. Accessibility, in contrast, may influence revisit intention more strongly through the quality of the tourism experience because convenient access may enhance comfort, reduce travel-related difficulties and subsequently contribute to satisfaction. This distinction provides a basis for examining both direct and satisfaction-mediated relationships within the integrated TPB-ECT framework proposed in this study.

Expectation-Confirmation Theory, Tourist Satisfaction and Revisit Intention

While TPB provides a cognitive explanation of behavioural intention, Expectation-Confirmation Theory (ECT) provides a complementary explanation of how previous consumption experiences shape subsequent behavioural responses. Originally developed by Oliver (1980), ECT proposes that satisfaction is formed through the comparison between prior expectations and perceived performance following consumption. When actual performance meets or exceeds expectations, positive confirmation occurs and satisfaction is strengthened. In contrast, when performance falls below expectations, negative disconfirmation may reduce satisfaction. Satisfaction subsequently influences post-consumption behavioural responses, including continued use, repurchase and loyalty.

The application of ECT to tourism is particularly appropriate because tourism is an experiential form of consumption. Tourists normally form expectations before visiting a destination and subsequently evaluate the destination based on their actual experience. Consequently, the post-visit assessment of whether the destination delivered the expected value, safety, convenience and overall experience can influence satisfaction and the intention to return. Oliver (1999) further argued that satisfaction and loyalty are closely connected within the development of continued consumer relationships, providing a theoretical basis for examining satisfaction as a mechanism linking previous experience to subsequent behavioural intention.

Recent tourism research provides empirical support for the role of satisfaction in revisit intention. Seow et al. (2024), for example, examined tourist satisfaction, experience and revisit intention among wellness tourists in Malaysia using structural equation modelling. Their study was explicitly grounded in expectancy-disconfirmation theory and examined the antecedents and consequences of tourist satisfaction and revisit intention. This evidence is particularly relevant to the present study because it demonstrates the continuing applicability of expectation-confirmation logic within the Malaysian tourism context.

Liu et al. (2024) similarly demonstrated that tourist satisfaction can operate as an important mechanism between tourism experience-related attributes and revisit intention. Their study found that event quality significantly influenced satisfaction and revisit intention, while satisfaction mediated the relationship between event quality and revisit intention. These findings suggest that destination or experience attributes may not influence repeat behavioural intention solely through direct cognitive evaluations. Instead, tourists may first evaluate the quality of their experience, develop satisfaction based on the extent to which expectations have been confirmed, and subsequently form an intention to revisit.

More recently, Xu et al. (2025) provided particularly relevant evidence from the Malaysian hospitality context by applying ECT to re-patronage intention in green hotels. Based on a survey of 260 hotel guests and structural equation modelling, the study found that guest satisfaction significantly influenced re-patronage intention and demonstrated the importance of post-consumption evaluation in explaining repeat patronage. The study further showed that ECT could be combined with perceived-value considerations to explain how guests move from their evaluation of hotel performance to satisfaction and subsequent re-patronage intention.

Taken together, these findings support the proposition that tourist satisfaction should not be treated merely as another independent predictor of revisit intention. From an ECT perspective, satisfaction represents an evaluative mechanism through which tourists translate their assessment of the experienced destination into subsequent behavioural intention. Accordingly, the present study positions tourist satisfaction as a mediator between destination attributes and revisit intention. This approach allows the study to examine whether value perception, safety and security, and destination accessibility influence revisit intention partly because these attributes contribute to a satisfying tourism experience.

The Theory of Planned Behaviour in Tourism

In tourism research, TPB has been used to examine how individuals' perceptions of a destination, the influence of social networks, and their sense of control over travel-related circumstances shape visitation decisions (Lam & Hsu, 2006). Jamalludin (2022) found that tourists' intentions to revisit Malaysia were significantly shaped by favourable destination perceptions, social influence, and safety perceptions, findings broadly consistent with the attitude and control-belief components of TPB. Esfandiar (2022) demonstrated that incorporating emotional and sensory factors, such as trust and enjoyment, enhances TPB's predictive capacity for visitation behaviour, suggesting that a purely cognitive rendering of TPB may be incomplete without an affective complement.

Within the framework of this study, value perception, safety and security, and destination accessibility are conceptualised as attributes that shape tourists' attitudes toward revisiting and their perceived behavioural control over the visitation decision. Perceptions of safety and accessibility, in particular, function as external control beliefs, since they reflect the degree to which tourists perceive the visitation decision as within their control, free of undue risk or logistical difficulty (Prideaux, 2000; George, 2010). Value perception, meanwhile, shapes tourists' attitudes toward the destination by reflecting the perceived favourability of the cost-benefit trade-off involved in revisiting (Wang & Li, 2023).

The Expectation-Confirmation Theory in Tourism

Oliver's (1980) ECT proposes that satisfaction arises from the comparison between pre-consumption expectations and post-consumption performance: when performance meets or exceeds expectations, satisfaction results, and satisfaction, in turn, drives post-consumption behaviour, including repurchase or, in the tourism context, revisit intention. Seow et al. (2024) demonstrated that satisfaction significantly predicts revisit intention in wellness tourism, while P Chew, Zainol & Goh (2024) confirmed that meeting or exceeding service standards enhances both satisfaction and loyalty among tourists visiting Malaysian destinations. Within ECT, satisfaction is theorised not merely as an outcome but as a mediating mechanism, the psychological process through which the confirmation or disconfirmation of expectations regarding specific destination attributes, such as value, safety, and accessibility, is translated into behavioural intention (Oliver, 1999).

Integrating TPB and ECT: Theoretical Gap and Research Positioning

Although TPB and ECT have both been applied extensively to explain tourism-related behavioural intentions, they emphasise different psychological stages of decision-making. TPB primarily explains how individuals form behavioural intentions through cognitive evaluations of the behaviour, social influence and perceived behavioural control (Ajzen, 1991). ECT, in contrast, focuses on post-consumption evaluation, explaining how the comparison between expectations and actual performance generates satisfaction and subsequently influences continued behavioural intention (Oliver, 1980). Thus, TPB provides a predominantly intention-formation perspective, whereas ECT provides a post-experience evaluation perspective.

Existing tourism research demonstrates the usefulness of both perspectives, but the two frameworks are often examined separately or extended through the addition of individual constructs. For example, extended TPB research has incorporated perceived value, destination image, service quality, risk and satisfaction to explain revisit intention, demonstrating that destination attributes may influence revisit intention directly and through satisfaction (Abbasi et al., 2021). Similarly, recent research has extended TPB by incorporating event quality

and satisfaction and has demonstrated that satisfaction can mediate the relationship between tourism experience-related attributes and revisit intention (Liu et al., 2024). ECT-based studies, meanwhile, emphasise the importance of confirmation and satisfaction in explaining continued patronage and revisit behaviour (Seow et al., 2024; Xu et al., 2025).

Despite these developments, a theoretical gap remains concerning how these two perspectives can operate simultaneously at the destination-attribute level. Specifically, limited attention has been given to whether destination attributes influence revisit intention directly, as suggested by a TPB-consistent behavioural pathway, while also influencing revisit intention indirectly through satisfaction, as suggested by ECT. Treating satisfaction simply as another predictor does not fully explain this distinction because it does not establish whether satisfaction represents a post-consumption mechanism through which destination attributes are translated into subsequent behavioural intention.

The integration of TPB and ECT therefore provides an opportunity to distinguish between two theoretically meaningful pathways. The first is a direct pathway from destination attributes to revisit intention. This pathway reflects the proposition that tourists may evaluate value, safety and accessibility as sufficiently important characteristics to influence their decision to return directly. The second is an indirect pathway through tourist satisfaction. This pathway reflects ECT because tourists evaluate their actual destination experience against prior expectations, and this evaluation contributes to satisfaction before influencing their subsequent intention to revisit.

This distinction is particularly important for value perception, safety and security, and destination accessibility because these attributes may operate differently. Perceived value can influence revisit intention through an immediate assessment of whether the destination provides sufficient benefits relative to the costs incurred. Safety and security may directly influence tourists' confidence in repeating the travel decision while also affecting satisfaction with the overall experience. Accessibility may reduce physical and logistical barriers to visiting, but its contribution to revisit intention may depend more strongly on whether convenient access translates into a satisfying destination experience.

Recent Malaysian research reinforces the relevance of examining these mechanisms jointly. Xu et al. (2025) demonstrated that ECT-based post-consumption evaluation remains useful for explaining re-patronage intention in Malaysian green hotels, while recent tourism research based on TPB has demonstrated the importance of behavioural control, satisfaction and destination-related attributes in explaining revisit intention. However, these studies do not directly establish whether different destination attributes demonstrate different combinations of direct TPB-consistent and satisfaction-mediated ECT-consistent effects.

Accordingly, the present study addresses this gap by integrating TPB and ECT within a single structural model and examining value perception, safety and security, and destination accessibility as destination attributes with both potential direct and indirect effects on revisit intention. Tourist satisfaction is positioned as the ECT-consistent mediating mechanism. Rather than assuming that all destination attributes operate through an identical process, the study investigates whether the relative contribution of direct and satisfaction-mediated pathways differs across the three attributes.

This approach advances literature in two ways. First, it extends the application of TPB and ECT from parallel theoretical explanations toward an integrated process-based explanation of tourist revisit intention. Second, it introduces an attribute-specific perspective by examining whether different destination characteristics activate different behavioural mechanisms. The resulting framework therefore provides a more differentiated explanation of revisit intention than a model that assumes either that all destination attributes directly influence intention or that all destination attributes operate exclusively through satisfaction.

TPB-Consistent Direct Effects

H1: Perceived value has a significant positive effect on revisit intention.

H2: Safety and security have a significant positive effect on revisit intention.

H3: Destination accessibility has a significant positive effect on revisit intention.

ECT-Consistent Indirect Effects via Tourist Satisfaction

H4: Perceived value has a significant positive effect on tourist satisfaction.

H5: Safety and security have a significant positive effect on tourist satisfaction.

H6: Destination accessibility has a significant positive effect on tourist satisfaction.

H7: Tourist satisfaction has a significant positive effect on revisit intention.

H8: Tourist satisfaction mediates the relationship between perceived value, safety and security, destination accessibility, and revisit intention.

CONCEPTUAL AND THEORETICAL FRAMEWORK

Figure 1 depicts the integrated TPB-ECT framework guiding this study. Value perception, safety and security, and destination accessibility are positioned as destination attributes with both a direct pathway to revisit intention (the TPB-consistent route) and an indirect pathway operating through tourist satisfaction (the ECT-consistent route).

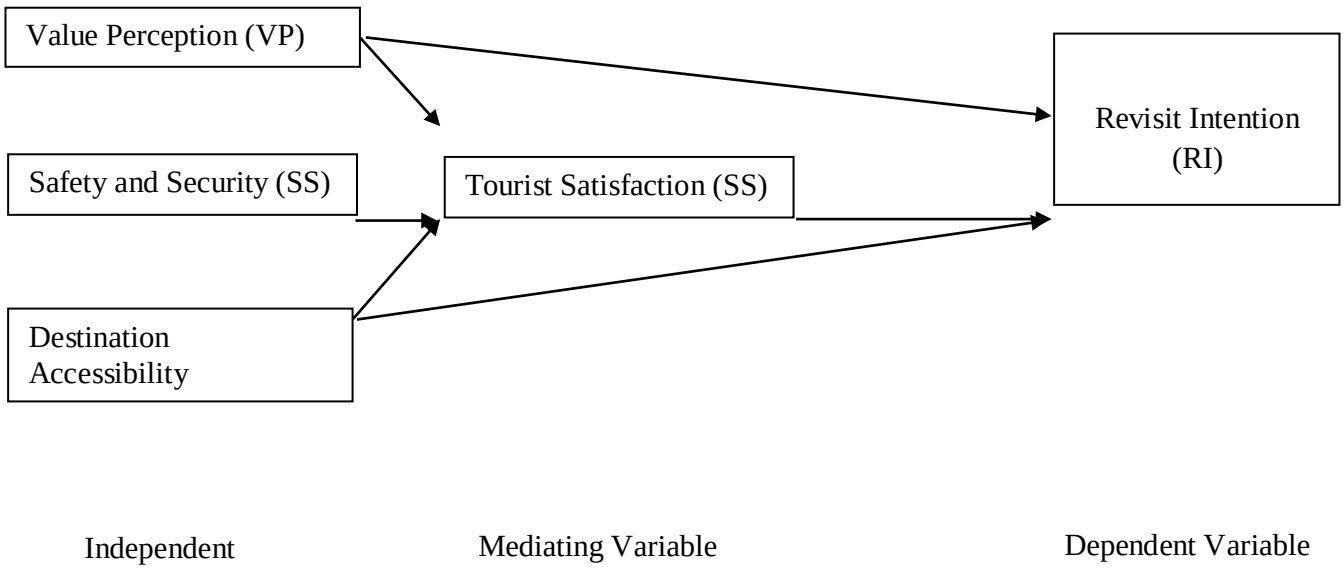


Figure 1. Conceptual and structural framework of the study.

RESEARCH METHODOLOGY

Research Design and Sample

A quantitative, cross-sectional survey design was employed, appropriate for testing a structural model integrating multiple theoretical pathways (Creswell & Creswell, 2018). Data were collected from 200 domestic tourists who had visited Cameron Highlands within the past year, using a combination of purposive and convenience sampling. This sample size is consistent with established guidance for structural equation modelling and multivariate analysis (Hair et al., 2019, 2021; Sekaran & Bougie, 2019; Roscoe, 1975).

Measures

Value perception (7 items), safety and security (7 items), destination accessibility (7 items), tourist satisfaction

(5 items), and revisit intention (5 items) were measured using validated five-point Likert-scale items adapted from established tourism and consumer behaviour research. A pilot test (n = 30) confirmed acceptable to excellent reliability across all constructs (Cronbach's alpha .740 to .944; Table 1).

Table 1. Pilot Test Reliability Analysis (n = 30)

Construct	Cronbach's Alpha	Number of items
Value Perception	.867	7
Safety and Security	.944	7
Destination Accessibility	.913	7
Revisit Intention	.876	5
Tourist Satisfaction	.740	5

Preliminary Data Screening

Prior to testing the measurement and structural models, the dataset was subjected to preliminary screening to assess data quality and the suitability of the observations for subsequent analysis. The screening procedure examined missing values, univariate normality, potential outliers, and multicollinearity among the explanatory constructs. The analysis was conducted before confirmatory factor analysis and structural equation modelling to ensure that the subsequent parameter estimates were based on a sufficiently clean and diagnostically appropriate dataset.

Normality was assessed using skewness and kurtosis statistics. The results indicated that the observed variables were within acceptable ranges for subsequent multivariate analysis. Although structural equation modelling can be relatively robust to moderate departures from normality, examination of the distributional properties remains important because substantial non-normality may affect parameter estimates and model fit.

Multicollinearity was assessed using the variance inflation factor (VIF) and tolerance statistics. The VIF values were below the commonly accepted threshold, while the corresponding tolerance values remained above the minimum acceptable level, indicating that multicollinearity did not represent a serious concern among the predictor constructs. These findings suggest that value perception, safety and security, and destination accessibility provided sufficiently distinct explanatory information for estimating their respective relationships with tourist satisfaction and revisit intention.

In addition, the dataset was examined for potential common method bias because the predictor, mediator and outcome variables were collected using the same self-administered questionnaire. The procedural and statistical assessment indicated that common method bias was not sufficiently severe to invalidate the subsequent analysis.

Analytical Strategy

The analytical strategy was designed explicitly to isolate the TPB-consistent and ECT-consistent pathways within a single structural model. Confirmatory factor analysis was first conducted to establish the adequacy of the measurement model, examining factor loadings, Average Variance Extracted (AVE), and Composite Reliability (CR). Structural equation modelling was then used to estimate, simultaneously, the direct paths from each destination attribute to revisit intention (the TPB-consistent pathways), the paths from each attribute to tourist satisfaction, and the path from tourist satisfaction to revisit intention (the ECT-consistent pathway). Mediation analysis, following Baron and Kenny (1986) and Hayes (2022), was used to classify each attribute's mediation pattern as partial (both direct and indirect paths significant, indicating that TPB-consistent and ECT-

consistent mechanisms operate jointly) or full (only the indirect path significant, indicating that the ECT-consistent mechanism alone accounts for the attribute's effect on revisit intention).

RESULTS

Table 2 summarises the demographic profile of the 200 respondents. The sample was predominantly composed of younger and middle-aged adults, with 58.0 percent aged between 20 and 40 years, and comprised 57.5 percent female and 42.5 percent male respondents.

Table 2. Demographic Profile of Respondents (N = 200)

Variable	**Category**	**Frequency**	**Percent (%)**
Age	20-30	56	28.0
	31-40	60	30.0
	41-50	33	16.5
	51-60	32	16.0
	61 and above	19	9.5
Gender	Male	85	42.5
	Female	115	57.5
Education	SPM	45	22.5
	Diploma	50	25.0
	Bachelor's Degree	64	32.0
	Master's and above	41	20.5
Visit frequency	First time	57	28.5
	Once a year	36	18.0
	Several times a year	64	32.0
	Monthly or more	43	21.5

Table 3 presents the measurement model results for the five constructs. The factor loading ranged from 0.64 to 0.90, while composite reliability values ranged from 0.812 to 0.907. These reliability estimates exceed the commonly accepted threshold of 0.70, indicating satisfactory internal consistency across the constructs. (Fornell & Larcker, 1981; Hair et al., 2019). The AVE values ranged from 0.463 to 0.653. Destination accessibility, value perception and revisit intention achieved AVE values above the conventional 0.50 threshold, providing evidence of satisfactory convergent validity for these constructs.

Safety and security (AVE = 0.469) and tourist satisfaction (AVE = 0.463) were marginally below 0.50. Nevertheless, their composite reliability values were above 0.80, and the factor loading were generally acceptable. The slightly lower AVE values therefore indicate a measurement limitation rather than a complete failure of construct reliability. These results are interpreted cautiously and are acknowledged as an area for future scale refinement.

Table 3. Measurement Model: AVE and Composite Reliability

Construct	Factor loading range	AVE	CR
Destination Accessibility	0.70-0.90	0.655	0.907
Value Perception	0.64-0.77	0.533	0.884
Safety and Security	0.67-0.77	0.469	0.891
Tourist Satisfaction	0.66-0.71	0.463	0.812
Revisit Intention	0.67-0.73	0.507	0.838

Structural Model Assessment

The structural model was evaluated to determine the hypothesised relationships among value perception, safety and security, destination accessibility, tourist satisfaction and revisit intention. The model was assessed using the overall model-fit indices and the estimated structural path coefficients (refer Table 4). The structural model demonstrated an acceptable overall fit to the observed data. The CMIN/DF value was 1.031, while the RMR was 0.035. The GFI and AGFI values were 0.880 and 0.859, respectively, and the PGFI value was 0.752. These results indicate that the proposed structural model provides an acceptable representation of the relationships specified in the integrated TPB-ECT framework.

Table 4. Structural Model Fit Indices

Fit index	**Value**	**Threshold**	**Interpretation**
CMIN/DF	1.031	< 3.0	Excellent fit
RMR	0.035	< 0.05	Good fit
GFI	0.880	>= 0.80	Acceptable fit
AGFI	0.859	>= 0.80	Acceptable fit
PGFI	0.752	>= 0.50	Good parsimony fit

Testing TPB-Consistent Direct Effects and ECT-Consistent Indirect Effects

Table 5 presents the direct-effect results, providing empirical support for the pathways proposed in accordance with the Theory of Planned Behavior (TPB). Value perception significantly predicted revisit intention (β = 0.233, p = .009), while safety and security also had a significant positive effect on revisit intention (β = 0.178, p = .011).

Destination accessibility demonstrated a significant total effect on revisit intention (β = 0.151, p = .002). These findings indicate that destination attributes can contribute directly to tourists' intention to revisit Cameron Highlands. The ECT-consistent relationships were also statistically significant.

Value perception significantly predicted tourist satisfaction (β = 0.215, p = .006), as did destination accessibility (β = 0.182, p = .005) and safety and security (β = 0.195, p = .007). Tourist satisfaction subsequently exerted a significant positive effect on revisit intention (β = 0.204, p = .013). Taken together, these findings demonstrate that destination attributes influence revisit intention not only directly but also through the satisfaction-based mechanism proposed by ECT.

Table 5. Structural Path Coefficients by Theoretical Pathway

Pathway type	Path	Beta	p-value	Result
ECT-consistent (attribute to TS)	VP -> TS	0.215	.006	Significant
ECT-consistent (attribute to TS)	DA -> TS	0.182	.005	Significant
ECT-consistent (attribute to TS)	SS -> TS	0.195	.007	Significant
TPB-consistent (direct to RI)	VP -> RI	0.233	.009	Significant
TPB-consistent (direct to RI)	DA -> RI (total effect)	0.151	.002	Significant
TPB-consistent (direct to RI)	SS -> RI	0.178	.011	Significant
ECT-consistent (TS to RI)	TS -> RI	0.204	.013	Significant

Mediation Analysis: Isolating the ECT Pathway

Table 6 presents the mediation analysis that provides further evidence of attribute-specific theoretical mechanisms. Value perception produced a significant indirect effect through tourist satisfaction (β = 0.0439), while its direct effect remained significant, indicating partial mediation. Safety and security similarly demonstrated a significant indirect effect (β = 0.0398), while the direct effect remained significant, also indicating partial mediation. In contrast, destination accessibility produced a significant indirect effect (β = 0.0371), while its direct effect became non-significant after tourist satisfaction was included in the mediation model (β = 0.051, p = .502). This pattern indicates full mediation for destination accessibility. The findings therefore support the proposition that TPB and ECT operate as complementary mechanisms but not necessarily with equal strength across destination attributes. Value perception and safety and security demonstrate dual direct and satisfaction-mediated effects, whereas the effect of accessibility is transmitted primarily through tourist satisfaction.

Table 6. Mediation Results by Theoretical Pathway

Attribute	Indirect (ECT) effect	Direct (TPB) effect within mediation sub-model	Theoretical interpretation
Value Perception	0.0439	0.233 (p = .009), significant	Both TPB and ECT pathways operate (partial mediation)
Destination Accessibility	0.0371	0.051 (p = .502), not significant	Only ECT pathway operates (full mediation)
Safety and Security	0.0398	0.178 (p = .011), significant	Both TPB and ECT pathways operate (partial mediation)

Hypothesis Testing Summary

The mediation analysis was expanded to examine the direct, indirect, and total effects of perceived value, safety and security, and destination accessibility on revisit intention through tourist satisfaction. The results indicate that perceived value had a direct effect of β = .233 and an indirect effect of β = .0439 through tourist satisfaction, resulting in a total effect of β = .2769. Similarly, safety and security demonstrated a direct effect of β = .178 and an indirect effect of β = .0398, producing a total effect of β = .2178. These findings indicate partial mediation for both perceived value and safety and security. In contrast, destination accessibility had a direct effect of β = .051, which was not statistically significant, while its indirect effect through tourist

satisfaction was β = .0371, resulting in a total effect of β = .0881. This pattern indicates full mediation, suggesting that the influence of destination accessibility on revisit intention operates primarily through tourist satisfaction.

Table 7. Summary of Hypothesis Testing

Relationship	Direct Effect (β)	Indirect Effect (β)	Total Effect (β)	Decision
VP → TS → RI	.233	.0439	.2769	Partial mediation
SS → TS → RI	.178	.0398	.2178	Partial mediation
DA → TS → RI	.051	.0371	.0881	Full mediation

DISCUSSION

TPB and ECT as Complementary, Not Competing, Frameworks

The central finding of this study is that TPB and ECT operate jointly, rather than competing explanations, within a single structural model of tourist revisit intention, but that their relative contribution varies systematically by destination attribute. For value perception and safety and security, both the TPB-consistent direct pathway and the ECT-consistent satisfaction-mediated pathway were statistically significant, indicating that these two attributes shape revisit intention through dual mechanisms: they directly inform tourists' attitudes and perceived behavioural control over the decision to revisit (the TPB mechanism), while simultaneously shaping the post-visit satisfaction that confirms or disconfirms pre-visit expectations (the ECT mechanism). This dual-pathway pattern is consistent with Esfandiar's (2022) argument that TPB's predictive power is enhanced when emotional and experiential factors are incorporated, and with Chaoyi, Huijuan, & Zhenbin, (2025) finding that perceived value influences loyalty through combined satisfaction and expectation-confirmation mechanisms.

Destination Accessibility as an ECT-Exclusive Attribute

In contrast, destination accessibility exhibited a starkly different pattern: its effect on revisit intention operated exclusively through the ECT-consistent satisfaction-mediated pathway, with no significant direct, TPB-consistent effect once satisfaction was included as a simultaneous mediator. This finding suggests that accessibility does not function as an independent attitudinal or control-belief input to the revisit decision in the way that TPB would predict for a generic destination attribute; rather, its influence is entirely contingent on whether it translates into a confirmed, satisfying experience. This is consistent with the Expectation-Confirmation Theory's emphasis on the experiential confirmation process (Oliver, 1980) and with Leiras, Domínguez-Vila & Magano (2025) finding that accessibility functions as both physical infrastructure and intangible perceived convenience shaping the overall tourist experience. Practically, this implies that accessibility improvements that do not measurably enhance the visitor's felt experience, for example, infrastructure upgrades that are not accompanied by improved signage, information, or service quality, may fail to produce the loyalty gains that destination managers might otherwise expect from a TPB-based logic of reduced perceived behavioural barriers alone.

Theoretical Contribution: A Differentiated Integration Model

This study's principal theoretical contribution is the demonstration that TPB-ECT integration is not uniform across destination attributes, but attribute-specific. Rather than proposing a single, generic combined model in which all antecedents are assumed to operate identically through both direct and indirect pathways, this study's findings suggest a more differentiated theoretical account: some destination attributes (value perception, safety and security) function as dual-pathway attributes, consistent with a straightforward TPB-ECT integration, while others (destination accessibility) function as ECT-exclusive attributes, whose influence on behavioural intention is entirely channelled through the satisfaction-confirmation mechanism. This differentiated

integration model offers a more precise theoretical account than either a pure TPB model, which would predict direct effects for all three attributes, or a pure ECT model, which would predict that all attribute effects are satisfaction mediated.

Practical Implications

This differentiated theoretical pattern carries direct practical implications for how destination managers might sequence and evaluate improvement initiatives. Investments in value delivery and safety and security can be expected to shape revisit intention both directly, by strengthening tourists' overall attitude toward and confidence in the destination, and indirectly, through enhanced satisfaction; managers can therefore expect measurable loyalty returns from such investments even before satisfaction metrics fully register the improvement. Investments in accessibility, by contrast, should be evaluated primarily, and perhaps exclusively, in terms of their downstream effect on visitor satisfaction; accessibility improvements that do not translate into a more enjoyable, less stressful, or more confirming visitor experience are unlikely to independently generate increased revisit intention, regardless of their objective infrastructural merit.

LIMITATIONS AND FUTURE RESEARCH

As a cross-sectional study relying on purpose and convenience sampling within a single highland destination, these findings should be generalised cautiously to other destination types. The AVE values for safety and security and tourist satisfaction fell marginally below the conventional 0.50 threshold, suggesting that future studies might refine these measurement scales to improve convergent validity. Future research could extend this differentiated TPB-ECT integration model to other categories of destination attributes, such as service quality, destination image, or technology adoption, to determine whether the dual-pathway versus ECT-exclusive distinction observed here for accessibility generalises to other structural or infrastructural, as opposed to experiential or relational, destination attributes. Longitudinal designs and bootstrap-based mediation testing (Hayes, 2022; Rijnhart et al., 2021) would further strengthen causal and statistical inference in future applications of this integrated framework.

CONCLUSION

This study tested an integrated Theory of Planned Behaviour and Expectation-Confirmation Theory framework to explain local tourists' revisit intention to Cameron Highlands, Malaysia. The results demonstrate that TPB and ECT operate as complementary, rather than competing, theoretical accounts, but that their joint operation is not uniform: value perception and safety and security shape revisit intention through both direct, TPB-consistent pathways and indirect, satisfaction-mediated, ECT-consistent pathways, whereas destination accessibility shapes revisit intention exclusively through the ECT-consistent satisfaction pathway. This differentiated integration model extends theoretical understanding of how distinct categories of destination attributes engage different behavioural mechanisms and offers destination managers a theoretically grounded basis for anticipating which improvement initiatives will yield direct attitudinal returns, and which will yield returns only insofar as they are experienced by tourists as genuinely satisfying.

ACKNOWLEDGEMENT

The authors would like to thank UNITAR University College Kuala Lumpur for supporting this research.

REFERENCES

1. 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), 282–304. https://doi.org/10.1108/SJME-12-2019-0109
2. 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

3. Al Masud, A., & Yusof, N. (2023). The mediating role of tourist satisfaction between perceived safety and revisit intention in post-pandemic destinations. Journal of Destination Marketing & Management, 27, 100762. https://doi.org/10.37231/jmtp.2023.4.1.285
4. Alfons, A., Ateş, N. Y., & Groenen, P. J. F. (2022). A robust bootstrap test for mediation analysis. Organizational Research Methods, 25(3), 591–617. https://doi.org/10.1177/1094428121999096
5. Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173
6. Chaoyi, C., Huijuan, L., & Zhenbin, W. (2025). Influencing factors of tourist loyalty in China camping destinations based on Expectation Confirmation Theory: The mediating role of satisfaction and well-being. Humanities and Social Sciences Communications, 12(1), 1418.
7. Chen, C. F., & Chen, F. S. (2010). Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists. Tourism Management, 31(1), 29–35. https://doi.org/10.1016/j.tourman.2009.02.008
8. Chew, S.-S., Zainol, R., & Goh, H. C. (2024). Satisfaction of international and domestic tourists in Malaysia's oldest national park: Taman Negara Pahang. Planning Malaysia, 22(33). https://doi.org/10.21837/pm.v22i33.1548
9. Chi, C. G. Q., & Qu, H. (2008). Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: An integrated approach. Tourism Management, 29(4), 624–636. https://doi.org/10.1016/j.tourman.2007.06.007
10. Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). SAGE Publications.
11. Darabseh, F., Alawneh, K. A., Alananzeh, O. A., & Shatnawi, H. S. (2024). Factors influencing tourists' revisit intention: The effect of safety and security, accessibility, service quality, and destination image. African Journal of Hospitality, Tourism and Leisure, 13(4), 906–915. https://doi.org/10.46222/ajhtl.19770720.578
12. Department of Statistics Malaysia. (2025). Tourism satellite account 2024.
13. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39–50. https://doi.org/10.1177/002224378101800104
14. George, R. (2010). Visitor perceptions of crime-safety and attitudes towards risk: The case of Table Mountain National Park, Cape Town. Tourism Management, 31(6), 806–815. https://doi.org/10.1016/j.tourman.2009.08.011
15. Gopinath, K., & Jyotsna, J. H. (2025). Smart technology and happy tourists: A meta-analysis. Asia Pacific Journal of Tourism Research, 30(4), 479–499. https://doi.org/10.1080/10941665.2025.2454233
16. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). Multivariate data analysis (8th ed.). Cengage Learning.
17. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). A primer on partial least squares structural equation modeling (PLS-SEM) (3rd ed.). SAGE Publications.
18. Hayes, A. F. (2022). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach (3rd ed.). Guilford Press.
19. Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling, 6(1), 1–55. https://doi.org/10.1080/10705519909540118
20. Jamalludin, N. (2022). Social influence, perceived safety, and revisit intention: A study of domestic tourists in Malaysia. Journal of Tourism, Hospitality and Environment Management, 7(28), 45–58.
21. Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. British Journal of Applied Science & Technology, 7(4), 396–403. https://doi.org/10.9734/BJAST/2015/14975
22. Kim, D., Hall, C. M., & Park, E. (2022). Digital economy, perceived value, and travel behaviour: A pre- and post-pandemic comparison. Tourism Management Perspectives, 42, 100950. https://doi.org/10.1016/j.tmp.2022.100950
23. Kline, R. B. (2023). Principles and practice of structural equation modeling (5th ed.). Guilford Press.

24. Laela, E. (2024). Understanding memorable tourism experiences and revisit intention from destination service quality. Jurnal Manajemen Bisnis dan Kewirausahaan, 8(5). https://doi.org/10.24912/jmbk.v8i5.29967
25. Lam, T., & Hsu, C. H. C. (2006). Predicting behavioral intention of choosing a travel destination. Tourism Management, 27(4), 589–599. https://doi.org/10.1016/j.tourman.2005.02.003
26. Leiras, A., Domínguez-Vila, T., & Magano, J. (2025). Accessible tourist destinations: A bifactorial image model of perceived image. Tourism Management Perspectives, 58, 101400. https://doi.org/10.1016/j.tmp.2025.101400
27. Liu, X., Zakaria, J., & Mohd Said, O. F. (2024). How event quality affects satisfaction and revisit intention from the theory of planned behaviour. South African Journal of Business Management, 55(1). https://doi.org/10.4102/sajbm.v55i1.4727
28. Malaysia Tourism Statistics. (2024). Pahang tourism performance report 2024. Ministry of Tourism, Arts and Culture Malaysia.
29. Marzo, R. R., Chen, H. W. J., Anuar, H., Abdul Wahab, M. K., Ibrahim, M. H., Ariffin, I. A., Ahmad, A. I., Kawuki, J., & Aljuaid, M. (2023). Effect of community participation on sustainable development: An assessment of sustainability domains in Malaysia. Frontiers in Environmental Science, 11, 1268036. https://doi.org/10.3389/fenvs.2023.1268036
30. Moghavvemi, S., Woosnam, K. M., Hamzah, A., & Hassani, A. (2021). Considering residents' personality and community factors in explaining satisfaction with tourism and support for tourism development. Tourism Planning & Development, 18(3), 296–318. https://doi.org/10.1080/21568316.2020.1768140
31. Mwesiumo, D., & Abdalla, M. J. (2022). Exploring the relative importance of epistemic value, value for money and perceived safety in visitors' evaluation of a destination. Current Issues in Tourism, 26(6), 868–873. https://doi.org/10.1080/13683500.2022.2105197
32. Nguyen, T. Q., & Bui, T. P. (2025). Tourist satisfaction and revisit intention in tropical mountain resorts: A structural equation modeling study in a developing country context. Tourism and Hospitality Research. https://doi.org/10.1177/14673584251387349
33. Nunnally, J. C., & Bernstein, I. H. (1994). Psychometric theory (3rd ed.). McGraw-Hill.
34. Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. Journal of Marketing Research, 17(4), 460–469. https://doi.org/10.1177/002224378001700405
35. Oliver, R. L. (1999). Whence consumer loyalty? Journal of Marketing, 63(4_suppl1), 33–44. https://doi.org/10.1177/00222429990634s105
36. Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879
37. Prideaux, B. (2000). The role of the transport system in destination development. Tourism Management, 21(1), 53–63. https://doi.org/10.1016/S0261-5177(99)00079-5
38. Qiu, N., Li, H., Pan, C., Wu, J., & Guo, J. (2024). The study on the relationship between perceived value, satisfaction, and tourist loyalty at industrial heritage sites. Heliyon, 10(17), e37184. https://doi.org/10.1016/j.heliyon.2024.e37184
39. Rijnhart, J. J. M., Twisk, J. W. R., Chinapaw, M. J. M., de Boer, M. R., & Heymans, M. W. (2021). Comparison of methods for the analysis of relatively simple mediation models. Contemporary Clinical Trials Communications, 22, 100773. https://doi.org/10.1016/j.conctc.2017.06.005
40. Roscoe, J. T. (1975). Fundamental research statistics for the behavioral sciences (2nd ed.). Holt, Rinehart and Winston.
41. Ruslim, T. S. (2025). Understanding revisit intention among Gen Z in Bali tourism: The role of service quality, perceived risk, and satisfaction. Journal of Management and Digital Business, 5(3). https://doi.org/10.53088/jmdb.v5i3.1909
42. Sekaran, U., & Bougie, R. (2019). Research methods for business: A skill building approach (8th ed.). John Wiley & Sons.
43. Selwendri, S., Raharja, S. J., Hermanto, B., & Tresna, P. W. (2024). Revisit intention model of Indonesian consumers to Malaysia for medical tourism: An extension of Theory of Planned Behavior. Journal of Ecohumanism, 3(8), 8980–8990. https://doi.org/10.62754/joe.v3i8.5512

44. Seow, A. N., Foroughi, B., & Choong, Y. O. (2024). Tourists' satisfaction, experience, and revisit intention for wellness tourism: E-word-of-mouth as the mediator. SAGE Open. https://doi.org/10.1177/21582440241274049
45. Sumarni, I., Baskara, I., & Fadli, J. A. (2024). The effect of service quality and destination image on return visit intention through tourist satisfaction. Jurnal Ilmiah Manajemen Kesatuan, 12(6), 2309–2336. https://doi.org/10.37641/jimkes.v12i6.2861
46. Tarlow, P. (2014). Tourism security: Strategies for effectively managing travel risk and safety. Butterworth-Heinemann.
47. Thong, J. Z., Lo, M. C., Ramayah, T., & Mohamad, A. A. (2023). Revisiting perceived determinants of tourism destination competitiveness among tourists: The case of national parks in Sarawak, Malaysia. Tourism, 71(1), 130–146. https://doi.org/10.18778/0867-5856.33.1.09
48. Utama, I. G. B. R., Laba, I. N., Junaedi, I. W. R., Krismawintari, N. P. D., Turker, S. B., & Juliana. (2021). Exploring key indicators of community involvement in ecotourism management. Journal of Environmental Management and Tourism, 12(3), 808–817. https://doi.org/10.14505/jemt.v12.3(51).20
49. Vargo, S. L., & Lusch, R. F. (2016). Institutions and axioms: An extension and update of service-dominant logic. Journal of the Academy of Marketing Science, 44(1), 5–23. https://doi.org/10.1007/s11747-015-0456-3
50. Wang, L., & Li, X. (2023). The five influencing factors of tourist loyalty: A meta-analysis. PLOS ONE, 18(4), e0283963. https://doi.org/10.1371/journal.pone.0283963
51. Wantara, P., Irawati, A., & Arfy, W. R. (2024). Relationship between destination image, accessibility, tourists experience, tourists satisfaction and revisit intention: Structural equation model analysis. BIO Web of Conferences, 146, 01027. https://doi.org/10.1051/bioconf/202414601027
52. Wong, N., Abdullah, R., & Lui, T. (2024). Post-pandemic recovery of Malaysia's tourism sector: Trends and domestic tourism development. Journal of Tourism and Hospitality Research, 20(1), 1–15.
53. Xu, X., Masukujjaman, M., Sobhani, F. A., & Rafi, K. N. (2025). Modeling the re-patronage intention of Malaysian green hotels using expectation-confirmation theory and theory of perceived value. Humanities and Social Sciences Communications, 12, 1540. https://doi.org/10.1057/s41599-025-05852-2
54. Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. Journal of Marketing, 52(3), 2–22. https://doi.org/10.1177/002224298805200302