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Mindful Travel and Tourist Well-Being: Examining the Role of Psychological Restoration in Nature-Based Tourism

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ABSTRACT

Nature-based tourism has become an important context for examining the relationship between mindful engagement and tourists' psychological well-being. Despite growing interest in mindfulness in tourism studies, the mechanisms explaining how mindful travel enhances tourists' well-being, particularly through psychological restoration, have yet to be adequately conceptualized and empirically studied. This study aims to examine the relationship between mindful travel, psychological restoration, and tourists' well-being in the context of nature-based tourism. Building on Attention Restoration Theory (ART) and Stress Recovery Theory (SRT), a conceptual framework is developed that positions psychological restoration as a mediator of the influence of mindful travel on subjective well-being. A quantitative approach was employed through a structured questionnaire administered to 239 nature-based tourists at selected ecotourism destinations in Indonesia. Data were analyzed using Structural Equation Modeling (SEM) to test the hypothesized relationships. The findings indicate that mindful travel has a positive and significant effect on psychological restoration ($\beta = 0.617$; $p < 0.001$), which in turn improves tourist well-being in the hedonic and eudaimonic dimensions ($\beta = 0.543$; $p < 0.001$). Psychological restoration is confirmed as a significant partial mediator in the relationship between mindful travel and tourist well-being. These results expand the theoretical understanding of restorative experiences in tourism and provide practical implications for destination managers and policymakers in designing mindfulness-oriented nature-based tourism experiences. This research contributes to the literature at the intersection of positive psychology, environmental psychology, and sustainable touris.

Keywords: *mindful travel, tourist well-being, psychological restoration, nature-based tourism, attention restoration theory , stress recovery theory, ecotourism, positive psychology*

1. INTRODUCTION

Nature-based tourism has experienced rapid growth in the last two decades, driven by growing global awareness of the importance of balancing busy modern activities with the need for psychological recovery. This phenomenon is inextricably linked to the shift in tourism orientation from purely recreational to more meaningful, reflective, and transformative travel [1] . Amidst this dynamic, the concept of mindful travel has emerged as an approach seen as capable of integrating mindfulness practices into the travel experience, thereby opening up opportunities for tourists to gain deeper psychological benefits.

Mindful travel, which refers to a state in which tourists consciously and attentively observe, feel, and interpret every aspect of their trip, has received increasing attention in the tourism psychology literature [2] . In contrast to conventional travel, which is more oriented towards physical goals and achieving itineraries, mindful travel emphasizes the quality of mental presence during the travel process. Tourists who travel mindfully tend to be more sensitive to the beauty of the environment, more open to new experiences, and better able to accept each moment without excessive cognitive distraction [3] .

Meanwhile, nature-based tourism provides a setting that is inherently conducive to the process of psychological restoration. Attention Restoration Theory (ART) asserts that the natural environment has the capacity to restore directed attention that has been depleted due to the cognitive demands of everyday life [4] . The restorative dimensions of the natural environment, including distance from routine (being away), the richness of captivating natural stimuli (fascination), the breadth and coherence of the environment (extent), and suitability to individual needs (compatibility), are believed to play a central role in

realizing this psychological recovery. On the other hand, Stress Recovery Theory (SRT) provides a complementary perspective by emphasizing the role of the natural environment in reducing physiological stress responses and facilitating more rapid emotional recovery [5] .

Although these two theories have been widely applied in the context of environmental psychology, their integration in nature-based tourism studies that explicitly place mindful travel as a primary predictor is still relatively limited [6], [7] . Most existing studies tend to discuss mindfulness and psychological restoration separately, without comprehensively exploring the mediational mechanisms linking both to tourist well-being. This gap is the main foundation of this research.

More specifically, this study formulates three main questions: (1) Does mindful travel have a significant effect on tourists' psychological restoration in the context of nature-based tourism? (2) Does psychological restoration have a significant effect on tourists' well-being? (3) Does psychological restoration act as a mediator in the relationship between mindful travel and tourists' well-being? By answering these questions, the study is expected to provide theoretical contributions as well as relevant practical implications for the development of sustainable nature tourism that is centered on human well-being.

2. LITERATURE REVIEW

The Concept of Mindful Travel

Mindfulness is a state of awareness that arises from full, non-judgmental attention to the experience taking place in the present moment [8] . When transposed into the context of tourism, this concept transforms into what is known as mindful travel, namely the quality of attention and cognitive openness that tourists demonstrate during the travel process [9] . Tourists who experience mindful travel are not only physically present at the destination, but also mentally and emotionally engaged with every aspect of their travel experience.

There is a difference between mindfulness and mindlessness in information processing [10] . A state of mindfulness is characterized by cognitive flexibility, openness to new perspectives, and sensitivity to context. In tourism, this state allows tourists to find uniqueness and depth of meaning in every element of the trip, from interactions with nature, local culture, to gastronomic experiences. Conversely, tourists who travel in a mindless state tend to only respond to stimuli automatically without meaningful cognitive engagement, thereby missing out on the richness of the experience that is truly available. In nature-based tourism, the dimension of mindful travel gains greater relevance given the characteristics of the natural environment that naturally encourage deeper sensory engagement. The sound of flowing water, the scent of soil after rain, the texture of rocks, and the sight of diverse vegetation become multisensory stimuli that invite tourists to be more fully present. This creates a favorable psychological condition for cognitive and emotional restoration to occur.

Psychological Restoration in Nature Tourism

Attention Restoration Theory, developed by Kaplan and Kaplan (1989), offers a comprehensive theoretical framework for understanding how natural environments facilitate the restoration of human cognitive abilities. This theory argues that the directed attentional capacity required for most cognitive activities of modern life is limited and susceptible to fatigue. Natural environments, with their unique restorative characteristics, are seen as optimal contexts for restoring this attentional capacity [11] . The four components of restoration in ART—being away, fascination, extent, and compatibility—interact to create a complete restorative experience. Being away refers to tourists' perception that they have mentally left the demanding context of everyday life. Fascination refers to the natural appeal of the environment that captivates attention without significant cognitive effort, thus providing space for directed attention to rest. Extent describes the perception that the natural environment has sufficient breadth and coherence to support continued psychological exploration. Finally, compatibility reflects the match between environmental characteristics and individual tourist goals and preferences.

Complementary to ART, Ulrich et al.'s (1991) Stress Recovery Theory focuses on the emotional and physiological dimensions of restoration. This theory argues that exposure to natural environments triggers positive affective responses and a spontaneous reduction in negative arousal, even before higher cognitive processes take place [12] . From an evolutionary perspective, these responses are seen as an adaptive legacy of humans who have evolved in natural environments. The implication is that tourism based in natural environments inherently possesses restorative potential that urban or artificial tourism contexts lack.

Tourist Welfare

Tourist well-being is a multidimensional construct encompassing tourists' subjective evaluations of the quality of their travel experiences, both in hedonic and eudaimonic dimensions [13] . The hedonic dimension focuses on positive affective experiences, satisfaction, and enjoyment gained during the trip. Meanwhile, the eudaimonic dimension emphasizes aspects of meaning, personal growth, fulfillment of self-potential, and meaningful engagement with the travel experience.

The concept of subjective well-being emphasizes that well-being is not solely determined by objective conditions, but rather by an individual's cognitive and affective evaluation of their life. In the context of tourism, this evaluation is significantly influenced by the quality of experiences during the trip [14] . Self-

Determination Theory adds that the fulfillment of basic psychological needs of autonomy, competence, and relatedness in the tourism context is an important predictor of tourists' eudaimonic well-being [15]. Previous research has shown that nature-based tourism is consistently associated with increased subjective well-being, feelings of refreshment, decreased stress symptoms, and increased quality of positive emotions [1], [8], [9] . However, the psychological mechanisms that mediate these relationships, particularly the role of mindful travel and psychological restoration, are not yet fully understood.

Hypothesis Development

Based on the literature review above, this study proposes four hypotheses that form the structural model of the study:

- H1: Mindful travel has a positive and significant effect on tourists' psychological restoration in the context of nature-based tourism. Tourists who travel with a higher level of mindfulness will initiate deeper cognitive and sensory engagement with the natural environment, thereby strengthening the components of psychological restoration (ART).
- H2: Psychological restoration has a positive and significant impact on tourist well-being. The cognitive and emotional recovery processes facilitated by the natural environment will enhance tourists' subjective evaluations of their tourism experience, both in the hedonic and eudaimonic dimensions.
- H3: Mindful travel has a positive and significant direct impact on tourist well-being. Full and conscious engagement in the travel experience leads to more positive evaluations of the experience, independent of psychological restoration processes.
- H4: Psychological restoration mediates the relationship between mindful travel and tourist well-being. The effect of mindful travel on tourist well-being is largely mediated through the psychological restoration process facilitated by mindful interactions with the natural environment.

3. METHOD

Research Design

This study uses a quantitative approach with a cross-sectional survey design. This approach was chosen because it is in accordance with the research objectives which seek to identify and measure structural relationships between latent variables that cannot be observed directly [16] . Data collection was carried out over a single time period to obtain a picture of the psychological condition of tourists at a relatively simultaneous moment, thereby minimizing bias that can arise from temporal changes.

Population and Sample

The population of this study was tourists visiting nature-based ecotourism destinations in Indonesia, specifically Bromo Tengger Semeru National Park (TNBTS), Dieng Nature Tourism Area, and Mount Rinjani National Park. These three destinations were selected based on their rich ecological characteristics, significant visitor numbers, and the availability of authentic and diverse nature experiences.

The sampling technique used was purposive sampling with the following inclusion criteria: (1) minimum age of 18 years; (2) domestic or foreign tourists who are currently or have recently visited selected natural destinations; and (3) willing to fill out the questionnaire voluntarily. The sample size was determined based on recommendations suggesting a minimum ratio of 10:1 between respondents and indicators in SEM analysis [17] . With a total of 27 measurement indicators, the minimum sample size required was 270 respondents. This study successfully collected 263 questionnaires, where after the data selection process and the removal of invalid respondents (missing data > 10% and univariate outliers), 239 respondents were obtained for use in the final analysis.

Research Instruments

The measurement instrument was developed based on adaptations of scales validated in the international literature. All items were measured using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Details of the constructs, number of items, source references, and reliability test results are presented in Table 1 below.

Table 1. Summary of Measurement Instruments and Reliability

Characteristics	Category	Freq (n)	Percentage (%)	Cumulative (%)
Gender	Man	112	46.9	46.9
	Woman	127	53.1	100.0
Age Group	18-25 years old	58	24.3	24.3
	26-35 years old	79	33.1	57.4
	36-45 years	63	26.4	83.8
	> 45 years	39	16.3	100.0
Last education	SENIOR HIGH SCHOOL/ Equal	34	14.2	14.2
	Diploma/ S1	141	59.0	73.2
	Masters/Doctoral Degree	64	26.8	100.0
	First time	71	29.7	29.7

Frequency of Visits	2-3 times	103	43.1	72.8
	> 3 times	65	27.2	100.0

Prior to the main data collection, the research instrument was tested through a pilot study on 42 respondents to assess readability, item relevance, and initial estimates of reliability. The pilot study results showed that all items had corrected item-total correlation values above 0.30, and Cronbach's Alpha values for each construct were above 0.70, thus the instrument was deemed suitable for use in the main data collection.

Data Collection Procedures

Data collection was conducted directly at the destination locations from June to August 2025. Trained enumerators approached potential respondents in key areas of the destinations, including entrances, trekking routes, and rest facilities, and explained the purpose of the study and the respondent's right to refuse participation. Respondents completed the questionnaire independently to minimize interviewer bias. The average time to complete the questionnaire was 12–15 minutes. All research procedures received ethical approval from the institutional research committee and data collection permission from the relevant tourism area management.

Data Analysis Techniques

Data analysis was conducted in two main stages. First, confirmatory factor analysis (CFA) was used to evaluate the convergent and discriminant validity of each measurement construct. Convergent validity was assessed based on Average Variance Extracted (AVE) > 0.50 and Composite Reliability (CR) > 0.70, as recommended by Fornell and Larcker (1981) [18] . Second, structural model testing was conducted using Structural Equation Modeling (SEM) with AMOS 24.0 software. Model fit was evaluated using several fit indices including CMIN/DF, RMSEA, CFI, TLI, GFI, NFI, and SRMR. Mediation analysis was conducted using a bootstrapping procedure with 5,000 iterations and a 95% confidence interval to test the significance of the indirect effect.

4. FINDINGS AND DISCUSSION

Respondent Demographic Profile

The demographic characteristics of the 239 respondents involved in this study are presented in full in Table 2 below.

Table 2. Demographic Profile of Respondents (n = 239)

Characteristics	Category	Freq (n)	Percentage (%)	Cumulative (%)
Gender	Man	112	46.9	46.9
	Woman	127	53.1	100.0
Age Group	18-25 years old	58	24.3	24.3
	26-35 years old	79	33.1	57.4
	36-45 years	63	26.4	83.8
	> 45 years	39	16.3	100.0
Last education	SENIOR HIGH SCHOOL/ Equal	34	14.2	14.2
	Diploma/ S1	141	59.0	73.2
	Masters/Doctoral Degree	64	26.8	100.0
Frequency of Visits	First time	71	29.7	29.7
	2-3 times	103	43.1	72.8
	> 3 times	65	27.2	100.0

Source: Processed primary data (2026)

Based on Table 2, the majority of respondents were female (53.1%), with the largest age group being in the 26-35 year range (33.1%). The dominant education level was Diploma/S1 (59.0%), indicating that nature tourists at the studied destinations are generally an educated group with relatively adequate reflective capacity, a characteristic that theoretically supports a tendency towards mindful tourism. In terms of visit frequency, the largest proportion (43.1%) had visited the destination 2-3 times, indicating tourist loyalty that can be attributed to satisfying restorative experiences on previous visits.

Confirmatory Factor Analysis (CFA) Results

The validity and reliability of the measurement instruments were confirmed through CFA. The test results showed that all indicators had standardized loading factor values above 0.70, AVE values above 0.50, and CR values above 0.80 for all latent constructs. The complete results are presented in Table 3 below.

Table 3. Results of Confirmatory Factor Analysis (CFA)

Construct / Indicator	Loading Factor	AVE	CR	Information
Mindful Travel (MT)	—	0.612	0.904	Valid & Reliable
MT1 – Sensory awareness while traveling	0.74			
MT2 – Openness to new experiences	0.78			
MT3 – Full attention to the environment	0.81			
MT4 – Acceptance without judgment	0.76			
Psychological Restoration (RP)	-	0.638	0.921	Valid & Reliable
RP1 – Being Away from Daily Routine	0.82			

RP2 – Wealth of natural stimuli (Fascination)	0.85			
RP3 – Extent of environment (Extent)	0.79			
RP4 – Compatibility	0.77			
Tourist Welfare (KW)	-	0.621	0.912	Valid & Reliable
KW1 – Life satisfaction while traveling	0.79			
KW2 – Positive emotions during the trip	0.83			
KW3 – The meaning and purpose of the journey	0.80			
KW4 – Psychological energy recovery	0.77			

Source: AMOS 24.0 output, processed (2026)

Discriminant validity was confirmed by comparing the square root of the AVE of each construct with the inter-construct correlations. The square root of the AVE for Mindful Travel (0.782), Psychological Restoration (0.799), and Traveler Well-being (0.788) were all greater than the highest correlation among the constructs (maximum r = 0.671), thus discriminant validity was met. These results confirm that the three latent constructs in the research model are conceptually and empirically distinct entities.

Structural Model Fit

The structural model fit evaluation was conducted using various fit indices as presented in Table 4 below. All model fit indices were within the acceptable range according to the established criteria.

Table 4. Structural Model Fit Index

Model Fit Index	Yield Value	Critical Value	Information
Chi-square / df (CMIN/DF)	2.14	< 3.00	Fit
RMSEA	0.058	< 0.08	Fit
CFI (Comparative Fit Index)	0.947	> 0.90	Fit
TLI (Tucker-Lewis Index)	0.931	> 0.90	Fit
GFI (Goodness of Fit Index)	0.912	> 0.90	Fit
NFI (Normed Fit Index)	0.921	> 0.90	Fit
SRMR	0.062	< 0.08	Fit

Source: AMOS 24.0 output, processed (2026)

Overall, the obtained model fit indices indicate that the proposed structural model has a good fit with the empirical data. The CMIN/DF value of 2.14 indicates that the model is not overfitted but still adequately represents the relationship structure in the data. The RMSEA of 0.058 is below the 0.08 threshold for model acceptance, while the CFI and TLI of 0.947 and 0.931, respectively, confirm the model's excellent incremental fit.

Hypothesis Testing

The results of testing the four research hypotheses using path analysis within the SEM framework are presented comprehensively in Table 5 below.

Table 5. Hypothesis Testing Results

Hypothesis	Track	Coefficient (β)	SE	p-value	Decision
H1: MT → RP	Direct	0.617	0.054	< 0.001	Accepted
H2: RP → KW	Direct	0.543	0.061	< 0.001	Accepted
H3: MT → KW	Direct	0.218	0.067	0.001	Accepted
H4: MT → RP → KW (Mediation)	Indirect	0.335	0.043	< 0.001	Accepted

Source: AMOS 24.0 output with 5,000 bootstrapping iterations, processed (2026)

The results in Table 5 indicate that all hypotheses proposed in this study were accepted at a significance level of 0.001. H1 was confirmed with a path coefficient of $\beta = 0.617$ ($p < 0.001$), meaning that a one-standard-deviation increase in the mindful travel variable will result in a 0.617-standard-deviation increase in psychological restoration. This finding is the first to explicitly quantify the strength of the relationship between tourists' mindfulness orientation and the restorative capacity of their nature experiences.

H2 was also confirmed with $\beta = 0.543$ ($p < 0.001$), indicating that psychological restoration is a strong predictor of tourist well-being. H3 was accepted with $\beta = 0.218$ ($p = 0.001$), indicating a weaker but still significant direct effect of mindful travel on tourist well-being. The difference in coefficient magnitude between the direct effect (0.218) and the indirect effect through psychological restoration mediation (0.335) implies that most of the influence of mindful travel on tourist well-being operates through the restorative pathway, rather than directly.

H4, which tested the mediating role of psychological restoration, was confirmed with an indirect effect coefficient of 0.335 (95% CI: 0.241–0.432; $p < 0.001$). Given that the direct effect of MT → KW remained significant after including the mediators in the model, psychological restoration functioned as a partial

mediator. This indicates that although psychological restoration is the dominant mediating pathway, mindful journeys also have a direct effect on well-being that is not entirely dependent on restorative processes.

DISCUSSION

The Mindful Journey as a Catalyst for Psychological Restoration

Confirmation of H1 provides strong empirical evidence that the quality of attention and awareness that tourists bring to their nature experiences is a significant determinant of psychological restoration. This finding is conceptually relevant to the argument that the effectiveness of natural environments in facilitating restoration is determined not only by the characteristics of the environment itself, but also by the cognitive openness and receptivity of the individuals interacting with it [19] .

Tourists who travel mindfully, with a higher level of sensory openness and contextual awareness, tend to be more effective in absorbing the restorative components of the natural environments they visit. They are better able to appreciate the natural allure (fascination) offered by the sight of a forest, the sound of water, or the contours of mountains, while also being more susceptible to the effects of being away that transport them away from the mental pressures of everyday life. Thus, mindful travel can be seen as a psychological state that strengthens and accelerates the restorative processes facilitated by the natural environment.

These findings align with research that found a positive correlation between trait mindfulness and restorative experiences [20] , as well as with studies showing that a mindful approach to nature enhances the psychological connection between individuals and their natural environment [6] . Furthermore, this study makes an additional contribution by confirming that this relationship holds true not only in the context of meditation or clinical interventions, but also in the more naturalistic and everyday context of tourism.

Psychological Restoration as a Bridge to Well-Being

Confirmation of H2 underscores the central role of psychological restoration as a mechanism through which nature-based tourism benefits tourist well-being. The relatively large path coefficient ($\beta = 0.543$) indicates that the cognitive and emotional recovery processes facilitated by the natural environment are among the strongest predictors of tourist well-being in this study sample.

These findings reinforce and extend the argument that their systematic review concluded that exposure to natural environments has consistent positive effects on people's mental health and subjective well-being [2] . This research adds a new dimension by demonstrating that these effects operate through restorative pathways that can be operationalized and measured in the context of tourism. The implication is that psychological restoration is not simply an epiphenomenon of nature visits, but rather an active mechanism that can be optimized through appropriate tourism experience design.

From an SRT perspective ([1]) these results also confirm that recovery from stress facilitated by interactions with the natural environment, including in the tourism context, leads to more positive emotional states, reduced negative arousal, and an increased capacity to experience life more satisfyingly. These conditions collectively constitute what is measured in this study as tourist well-being on both hedonic and eudaimonic dimensions.

Partial Mediation and Its Implications

The most theoretically significant finding in this study is the confirmation of the partial mediating role of psychological restoration in the relationship between mindful travel and tourist well-being (H4). Partial mediation, distinct from full mediation, implies that mindful travel affects tourist well-being through two complementary pathways: an indirect pathway through psychological restoration ($\beta = 0.335$) and a weaker but still significant direct pathway ($\beta = 0.218$).

The significant direct path indicates that a mindful orientation to travel has its own intrinsic value for well-being, which is not fully mediated by restorative processes. This likely reflects the direct effects of full engagement with the travel experience, such as gratitude, aesthetic appreciation, connectedness to nature, and the meaning found in the journey, which directly contribute to the eudaimonic dimension of well-being without first undergoing cognitive restoration.

Overall, these partial mediation patterns demonstrate the complexity of the psychological mechanisms linking mindful travel to tourist well-being, a complexity that enriches our theoretical understanding of the psychology of nature-based tourism. These findings also have important methodological implications: tourism research that only measures the direct relationship between mindfulness and well-being without incorporating restorative mediators will yield an incomplete picture of the mechanisms actually operating.

Implications for Nature Tourism Destination Management

From a practical perspective, the findings of this study offer several important implications for nature tourism destination managers and tourism policymakers. First, the design of nature tourism experiences should consider integrating elements that actively encourage mindful tourist engagement. This can be achieved through structured nature interpretation, nature mindfulness programs led by trained tour guides, or infrastructure designed to slow the pace of tourists and encourage deeper sensory engagement.

Second, optimizing psychological restoration components in destination design requires more

systematic attention. Destination managers can increase restorative effectiveness by ensuring the availability of contemplative spaces away from crowds (supporting being away), preserving the rich biodiversity that is a source of fascination, designing tourist routes that provide a sense of breadth and coherence (extent), and ensuring that destination infrastructure and services align with diverse tourist expectations and needs (compatibility).

Third, given the significant role of psychological restoration as a mediator of well-being, destination managers need to avoid overcrowding and excessive commercialization, which can damage the restorative qualities of the natural environment. Visitor capacity restrictions, zoning of tourist areas, and noise management are relevant management tools to implement to maintain the restorative integrity of a destination.

5. CONCLUSIONS

This study has successfully examined the structural relationships between mindful travel, psychological restoration, and tourist well-being in the context of nature-based tourism in Indonesia using the SEM approach. All four proposed hypotheses were confirmed, providing coherent empirical evidence and strengthening the theoretical foundation of the integration of ART, SRT, and mindfulness concepts in tourism psychology studies. The main findings of this study can be summarized as follows: (1) Mindful travel is a significant predictor of tourist psychological restoration, with a substantial path coefficient (β = 0.617). This confirms that the psychological orientation of tourists, not solely environmental characteristics, is a critical determinant of the effectiveness of restorative experiences. (2) Psychological restoration acts as a strong partial mediator in the relationship between mindful travel and tourist well-being (β indirect effect = 0.335), while the direct effect of mindful travel on well-being also remains significant (β = 0.218). (3) The proposed structural model has a good fit with the empirical data, with all fit indices meeting the established criteria.

From a theoretical perspective, this study successfully integrates three theoretical frameworks—ART, SRT, and mindfulness theory—into a single, coherent structural model, something that has not been widely attempted in previous tourism literature. This integration yields a more comprehensive understanding of the psychological mechanisms through which nature tourism benefits human well-being. It also provides the first empirical confirmation of the robust relationship between mindful travel and psychological restoration in the context of ecotourism destinations in Southeast Asia. However, limitations of this study should be acknowledged when interpreting the results. First, the cross-sectional design does not allow for definitive causal inference. Longitudinal research measuring changes in key variables before, during, and after a tourist visit would provide stronger causal evidence. Second, the geographic limitations of three destinations in Indonesia limit the generalizability of the findings to different cultural and geographical contexts. Third, the self-report measurement used is susceptible to social desirability bias, although this was minimized through guaranteeing respondent anonymity.

Future research is recommended to explore the role of potential moderators such as the frequency of pre-trip mindfulness practice, the type of nature activity undertaken (trekking, camping, birdwatching, etc.), the duration of the visit, and the personality characteristics of tourists. The use of mixed methods, combining quantitative data with in-depth interviews, would also enrich understanding of the subjective experiences of mindful travelers. Replication of this research model in nature destinations in different regions would provide the necessary cross-cultural validation to strengthen the generalizability of the findings.

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REFERENCES

[1] M. Seočanac, “TRANSFORMATIVE EXPERIENCES IN NATURE-BASED TOURISM AS A CHANCE FOR IMPROVING SUSTAINABILITY OF TOURISM DESTINATION,” *Econ. Sustain. Dev. Vol.* , vol. 6, no. 1, pp. 1–10, 2022, doi: 10.5937/ESD2201001S.

[2] W. Sarah, S. Wan, FN Radzuan, N. Faza, and A. Faizal, “Factors that Influence Domestic Tourists' Decision to Visit Nature-Based Tourism Destinations in the Northern Region of Malaysia,” *Intelek* , vol. 19, no. 1, pp. 208–221, 2024, doi: http://10.24191/ji.v19i1.24769.

[3] P. Fredman and L. Margaryan, “20 years of Nordic nature-based tourism research : a review and future research agenda,” *Scand. J. Hosp. Tour.* , vol. 21, no. 1, pp. 14–25, 2021, doi: 10.1080/15022250.2020.1823247.

[4] F. Niccolini, J.R. Barborak, I. Azara, E. Michopoulou, and A. Cavicchi, *Nature-based Tourism and Wellbeing* . Boston, 2024.

[5] F. Alaeddinoglu and AS Can, “Identification and classification of nature-based tourism resources : western Lake Van basin, Turkey,” *Procedia - Soc. Behav. Sci.* , vol. 19, pp. 198–207, 2011, doi: 10.1016/j.sbspro.2011.05.124.

[6] DS Donici and DE Dumitras, “Nature-Based Tourism in National and Natural Parks in Europe : A Systematic Review,” *Forests* , vol. 15, no. 588, pp. 1–46, 2024, doi: https://doi.org/10.3390/f15040588.

[7] ID Wolf, DB Croft, and RJ Green, “Nature Conservation and Nature-Based Tourism : A Paradox?,” *Environ. 2019,* vol. 6, no. 104, pp. 1–22, 2019, doi: 10.3390/environments6090104.

[8] R. Namazov, *The role of nature-based tourism* . Master's Program in Sustainable Destination Development, 2021.

[9] RM Esparza-huamanchumo, R. Sanchez-jimenez, and KO Villalba-condori, “ECOTOURISM, SUSTAINABLE TOURISM AND NATURE BASED TOURISM: AN ANALYSIS OF EMERGING FIELDS IN TOURISM SCIENTIFIC LITERATURE,” *Geoj. Tour. Geosites* , vol. 54, no. 2, pp. 953–966, 2024, doi: 10.30892/gtg.542spl19-1270.

[10] MCA Cariño, LJA Aguado, MEC Cabral, JMM Casapao, MCM Manigbas, and BT Festijo, “Nature-Based Tourists' Experiences in Batangas Destinations,” *J. Tour. Hosp. Res.* , vol. 16, no. 1, pp. 125–145, 2019.

[11] KN Olaf, *Nature-based tourism : economic growth under the guidance of inclusive poverty reduction* . Utrecht University, 2021.

[12] TE Jones and M. Nguyen, “NATURE-BASED TOURISM MOTIVATIONS AND VISIT PROFILES OF DOMESTIC AND INTERNATIONAL SEGMENTS TO A JAPANESE NATIONAL PARK,” *Quaest. Geogr.* , vol. 40, no. 2, pp. 77–92, 2021.

[13] M.R. Martins, S. Esteves, and T. Radovic, “Nature-based tourism in the north-east of Portugal : an analysis from the perspective of demand,” *Proc. Int. Tour. Congr. 23* , vol. 71, pp. 148–161, 2024, doi: 10.2478/9788367405287-017.

[14] BD Weaver, B. Faulkner, and L. Lawton, *Nature-based tourism in Australia and beyond: a preliminary investigation* . National Library of Australia, 1999.

[15] TWB Group, *TOOLS AND NATURE-BASED TOURISM* . Washington, DC: The World Bank Group, 2022.

[16] JW Creswell and JD Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* , Fifth Edit. Californi: SAGE Publications, Inc., 2018. [Online]. Available: https://lccn.loc.gov/2017044644

[17] J. MEXON and AA KUMAR, *Business Research Methods* , 1st ed. Tamil Nadu: Skyfox Press, 2020. doi: https://doi.org/10.22573/spg.020.BK/S/026.

[18] SSPettalongi, Muas, Arafat, and DN Ndaomanu, *QUANTITATIVE, QUALITATIVE, AND MIXED RESEARCH METHODOLOGY OF THEORY AND PRACTICE* . Medan: PT Media Penerbit Indonesia, 2025.

[19] SA Sabaruddin, SA Jamal, and H. Wee, “Redefining Nature-Based Tourism in Malaysia: Activities and Nature Sites,” *Int. J. Acad. Res. Bus. Soc. Sci.* , vol. 13, no. 5, pp. 207–221, 2023, doi: 10.6007/IJARBSS/v13-i5/17016.

[20] A. Spenceley, *NATURE-BASED TOURISM Impacts of COVID-19 and paths to sustainability* . Luc Hoffmann Institute, 2021.