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The Influence of Tourism Attributes on Destination Image Post-Reclamation Mediated by Tourist Satisfaction at Tampomas Eco Park Sumedang

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ABSTRACT

The transformation of former mining sites (mining brownfields) into sustainable tourism destinations presents complex challenges, particularly in reshaping public perceptions and overcoming the stigma associated with environmental degradation. This study aimed to examine the relationships between tourism attributes, destination image, and tourist satisfaction as a mediating variable at Tampomas Eco Park, Sumedang Regency, Indonesia. An explanatory quantitative approach with a cross-sectional survey design was employed. Primary data were collected from 300 tourists through on-site intercept surveys using a structured questionnaire with a 7-point Likert scale. The data were analyzed using partial least squares structural equation modeling (PLS-SEM) with SmartPLS 4. Hypothesis testing revealed that tourism attributes were positively and significantly associated with tourist satisfaction ($\beta = 0.530$; $t = 9.629$; $p < 0.001$), while tourist satisfaction was strongly and positively associated with destination image ($\beta = 0.899$; $t = 19.062$; $p < 0.001$). However, tourism attributes exhibited a significant negative direct association with destination image ($\beta = -0.505$; $t = 7.705$; $p < 0.001$), alongside a significant positive indirect association through tourist satisfaction ($\beta = 0.476$; $t = 8.412$; $p < 0.001$). These opposing direct and indirect associations were consistent with competitive mediation, suggesting that tourist satisfaction may play an important role in explaining how visitors evaluate tourism attributes and form perceptions of a reclaimed mining destination. The findings provided empirical insights into the relationships among tourism attributes, tourist satisfaction, and destination image in the context of post-mining tourism development at Tampomas Eco Park.

INTRODUCTION

Global restructuring and the decline of mining activities in certain regions have created complex environmental challenges associated with abandoned or underutilized post-mining sites, commonly referred to as mining brownfields. Pavolová et al., (2024) described mining brownfields as areas previously used for extractive activities that have subsequently become abandoned or underutilized, often exhibiting varying degrees of environmental degradation. Historically, these sites have been perceived as liabilities because of landscape disturbance, ecological damage, and potential environmental hazards. However, within

sustainable tourism development frameworks, rehabilitated post-mining landscapes are increasingly recognized as potential assets that can support nature-based recreation, geotourism, and local economic diversification (Bahrami Jaf et al., 2026). Their transformation into viable tourism destinations requires appropriate environmental rehabilitation, infrastructure development, and long-term management to ensure ecological sustainability and visitor safety (Pavolová et al., 2024).

The transformation of Tampomas Eco Park in Sumedang Regency, Indonesia, illustrates the potential for integrating a post-mining landscape with recreational tourism facilities. The destination combines the geological characteristics of the Mount Tampomas area with recreational attractions, including go-kart tracks and glamping accommodations, to create a distinctive visitor experience. This combination of natural and constructed environments can be examined through the concept of the experiencescape, which emphasizes the physical, social, and experiential characteristics of tourism settings. The Stimulus–Organism–Response (S–O–R) framework (Mehrabian & Russell, 1974) provides a theoretical basis for examining how destination attributes, as external stimuli, are associated with tourists' internal evaluations and subsequent perceptions of a destination. Within this framework, tourism attributes represent environmental stimuli, tourist satisfaction reflects an evaluative response to the visitor experience, and destination image represents tourists' overall perceptions of the destination. This conceptualization provides a basis for investigating the relationships among tourism attributes, tourist satisfaction, and destination image in a post-mining tourism context.

The development of Tampomas Eco Park also highlights the importance of understanding visitor responses during the early stages of destination development. According to internal management records, the destination received 3,780 visitors between October 2025 and May 2026, including 1,500 visitors in April 2026. These figures suggest substantial visitor interest during the reported period, although they do not independently establish sustained tourism growth or long-term destination competitiveness. Increasing visitor numbers may place additional demands on destination management, particularly regarding the quality of attractions, accessibility, amenities, and ancillary services, collectively known as the 4A tourism attributes. Understanding how visitors evaluate these attributes is therefore important for identifying potential service deficiencies, improving visitor satisfaction, and supporting the development of a favorable destination image.

Despite the potential of post-mining tourism destinations, an important theoretical issue concerns the possibility that different destination attributes contribute differently to tourist satisfaction. The Three-Factor Theory of customer satisfaction, drawing on Kano's model (Kano, 1984; Yang et al., 2026), suggests that attributes may function as basic, performance, or excitement factors, depending on how their presence or performance relates to satisfaction and dissatisfaction. In a post-mining tourism setting, distinctive geological formations may serve as excitement attributes that enhance visitor experiences, whereas essential facilities, including sanitation, parking, and road safety, may function as basic attributes whose inadequacy contributes to dissatisfaction. However, these classifications should be treated as theoretical propositions unless supported by attribute-level empirical analysis. Furthermore, the juxtaposition of former mining landscapes and modern recreational facilities may shape tourists' perceptions of environmental quality, authenticity, and

destination credibility. Where environmental rehabilitation claims are not supported by verifiable evidence, sustainability-oriented destination branding may also raise concerns about greenwashing and skepticism toward environmental claims (Han et al., 2026). These considerations suggest that tourist satisfaction may be relevant to understanding how visitors interpret destination attributes and form an overall destination image.

Previous studies have examined related aspects of geotourism development, tourism infrastructure, and the revitalization of degraded landscapes. Novarlia et al., (2025) investigated geotourism-related activities in Sumedang, with particular attention to local Teuweul honeybee micro, small, and medium enterprises (MSMEs). Their research provided insights into the relationship between local economic activities and tourism development but did not specifically examine the mediating role of tourist satisfaction in shaping destination image at a reclaimed mining site. Yin et al., (2026) examined infrastructure preferences in Japanese national parks, offering a perspective on visitor evaluations of tourism facilities in nature-based destinations. However, the institutional and environmental characteristics of national parks differ from those of reclaimed mining landscapes. Meanwhile, Wei et al. (2025) investigated brownfield spatial quality, contributing to the understanding of environmental and spatial characteristics associated with site revitalization. Nevertheless, spatial quality assessments alone do not necessarily explain how tourists' evaluations of destination attributes are associated with satisfaction and destination image. Collectively, these studies provide relevant perspectives on tourism development, infrastructure preferences, and brownfield revitalization, while indicating the need for further investigation of the relationships among tourism attributes, satisfaction, and destination image in post-mining tourism settings.

Building on these perspectives, the present study addressed a context-specific research gap by examining tourist satisfaction as a mediating variable in the relationship between tourism attributes and destination image at Tampomas Eco Park, Sumedang Regency. The study integrated the 4A tourism attribute framework with the S–O–R perspective to investigate the direct and indirect relationships among the principal constructs. The Three-Factor Theory provided an additional interpretive perspective on the possibility that tourism attributes may have different implications for visitor satisfaction, although the classification of individual attributes as basic, performance, or excitement factors would require separate empirical testing. Specifically, the study aimed to examine the relationships between tourism attributes and tourist satisfaction, tourism attributes and destination image, and tourist satisfaction and destination image, as well as the mediating role of tourist satisfaction. Its theoretical contribution was to provide empirical evidence concerning the applicability of an integrated mediation framework in a post-mining tourism destination. Practically, the findings were expected to inform destination managers and local policymakers in prioritizing tourism facilities, improving visitor experiences, and strengthening destination positioning. By identifying the relative contributions of tourism attributes and tourist satisfaction to destination image, the study sought to support more evidence-informed management of reclaimed tourism landscapes in Indonesia.

METHOD

This study applied an explanatory quantitative survey design with a cross-sectional time horizon to capture immediate affective responses among visitors at the destination site.

Population, Sample, and Quality Control

The target population comprised all tourists visiting Tampomas Eco Park, classified as an infinite population. Primary sampling yielded N = 300 completed responses gathered through purposive sampling with inclusion criteria: (1) aged 18 years or older, and (2) having fully explored both the geological natural features and artificial recreational facilities. The sample size of 300 accounts for approximately 8% of the actual total visitor population (3,780 visitors) recorded between October 2025 and May 2026, substantially exceeding the 10-times rule in PLS-SEM to guarantee statistical stability [Hair et al., 2022].

Data collection utilized an On-site Intercept technique at exit gates using a structured 7-point Likert scale (1 = Strongly Disagree to 7 = Strongly Agree) to capture fine-grained emotional responses. To eliminate straight-lining response bias, the instrument incorporated an Attention Check [Neger et al., 2026].

Analytical Procedure

Data analysis was executed sequentially:

1. IBM SPSS Statistics v26: Used for demographic profiling and Harman's Single Factor test to verify the absence of Common Method Bias (CMB).
2. SmartPLS 4 (PLS-SEM): Executed to evaluate the Measurement Model (Outer Model) including convergent validity (outer loadings > 0,70; AVE > 0,50), construct reliability (Cronbach's Alpha & CR > 0,70), and discriminant validity (HTMT < 0,85). Subsequently, the Structural Model (Inner Model) was tested via bootstrapping with 5,000 resamples to evaluate path coefficients (β), T-statistics (> 1,96), R^2 values, and out-of-sample predictive relevance via PLSpredict (Q^2 predict).

RESULTS AND DISCUSSION

Outer Model Evaluation (Validity and Reliability)

The PLS-SEM algorithm results confirmed that all latent constructs met strict convergent validity and internal consistency standards, with Average Variance Extracted (AVE) exceeding 0.50 and Composite Reliability (CR) exceeding 0.70 across all variables.

Table 1. Construct Reliability and Validity Overview

Construct / Latent Variable	*Cronbach's Alpha (α)*	*Composite Reliability* (ρA)	*Composite Reliability (ρc)*	*Average Variance Extracted* (AVE)	Evaluation
Tourism Attributes (X)	0,939	0,942	0,949	0,701	Valid & Reliable
Destination Image (Y)	0,846	0,848	0,907	0,765	Valid & Reliable
Tourist Satisfaction (M)	0,865	0,869	0,917	0,787	Valid & Reliable

Source: SmartPLS 4 Output (2026)

Individual indicator loadings were also evaluated. All items (X1.1–X4.2, M1.1–M1.3, Y.1–Y.4) exhibited outer loadings well above the 0.70 threshold (ranging from 0.811 to 0.904), confirming indicator reliability without requiring item deletion.

Table 2. Outer Loadings Evaluation of Individual Indicators

Latent Variable	Indicator Description	Code	Outer Loading	Status
Tourism Attributes (X)	Visual Uniqueness of Geological Landscape	X1.1	0,849	Valid (> 0,70)
	Authenticity of Natural Environment Features	X1.2	0,856	Valid (> 0,70)
	Road Route Safety and Suitability	X2.1	0,819	Valid (> 0,70)
	Parking Area Neatness and Convenience	X2.2	0,823	Valid (> 0,70)
	Rest and Glamping Area Cleanliness	X3.1	0,844	Valid (> 0,70)
	Completeness of Sanitation/Toilet Facilities	X3.2	0,833	Valid (> 0,70)
	Staff Friendliness and Service Reliability	X4.1	0,811	Valid (> 0,70)
	Availability of Signage and Digital Info	X4.2	0,860	Valid (> 0,70)
Tourist Satisfaction (M)	Fulfillment of Initial Expectations	M1.1	0,904	Valid (> 0,70)
	Emotional Savoring and Relaxation	M1.2	0,887	Valid (> 0,70)
	Integrated Service Quality Satisfaction	M1.3	0,870	Valid (> 0,70)
Destination Image (Y)	Environmental Reputation of Destination	Y.1	0,881	Valid (> 0,70)
	Visual Identity of Land Transformation	Y.2	0,854	Valid (> 0,70)
	Competitiveness and Revisit/Recommend Intent	Y.3	0,888	Valid (> 0,70)
	Trust in Management's Ecological Commitment	Y.4	0,850	Valid (> 0,70)

Source: SmartPLS 4 Output (2026)

Inner Model Evaluation and Hypothesis Testing

Structural model evaluation via 5,000 bootstrapping resamples validated all four direct and indirect hypotheses, as presented in Table 3.

Table 3. Direct and Indirect Hypothesis Testing Results

Hypothesized Path	Original Sample (β)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics (|O/STDEV|)	P-Values	Decision
H1: Tourism Attributes → Satisfaction	+0,530	+0,532	0,055	9,629	0,000	Supported
H2: Tourism Attributes → Image (Direct)	-0,505	-0,506	0,065	7,705	0,000	Supported (-)
H3: Satisfaction → Destination Image	+0,899	+0,902	0,047	19,062	0,000	Supported
H4: Attributes → Satisfaction → Image	+0,476	+0,480	0,057	8,412	0,000	Supported (Full)

Source: SmartPLS 4 Output (2026)

Explanatory Power (R^2) and Predictive Relevance (Q^2 predict)

To evaluate model adequacy, R^2 coefficients and out-of-sample prediction via PLSpredict were computed. Tourism Attributes explain 28.1% of Tourist Satisfaction variance ($R^2 = 0.281$). Together, Tourism Attributes and Tourist Satisfaction account for 43.2% of Destination Image variance ($R^2 = 0.432$).

Table 4. R^2 Coefficients and PLSpredict (Q^2 predict) Evaluation

Endogenous Variable	R^2	R^2adjusted	Q^2 predict (LV)	Manifest Indicators	Q^2 predict (MV)	Model Category
Tourist Satisfaction (M)	0,281	0,279	0,273	M1.1 M1.2 M1.3	0,233 0,221 0,184	Moderate / Strong Predictive Relevance
Destination Image (Y)	0,432	0,428	-0,011	Y.1 Y.2 Y.3	-0,010 -0,008 -0,006	Moderate-Strong / In-Sample Explanatory Focus

Source: SmartPLS 4 Output (2026)

PLSpredict results reveal that Tourist Satisfaction exhibits Q^2 predict = 0,273 > 0, demonstrating strong out-of-sample predictive power. Conversely, Destination Image Q^2 predict = -0,011 indicates that the structural model functions primarily as an in-sample explanatory causal model (R^2 = 43,2%) designed to explain competitive mediation rather than point prediction.

Theoretical Discussion and Suppression Effect Analysis

1. Asymmetric Impact of Tourism Attributes on Satisfaction (H1 Supported)

Tourism Attributes significantly drive Tourist Satisfaction (β = +0,530; T = 9,629; p = 0,000), supporting Three-Factor Theory. The unique geological landscape of the former quarry serves as an excitement attribute (delighter) triggering emotional savoring. Meanwhile, sanitation, parking, and route safety function as basic attributes (must-haves) essential for preventing dissatisfaction.

2. Suppression Effect: Converting Mining Stigmas into Unique Geotourism Identity (H2 & H4 Supported)

A key discovery is the significant negative direct effect of Tourism Attributes on Destination Image (β = -0,505; T = 7,705; p = 0,000). In SEM econometrics, this indicates a Suppression Effect (Competitive Mediation). As a mining brownfield, Tampomas carries a historical social stigma of environmental ruin. Direct cognitive evaluation of unmediated raw quarry land reinforces negative perceptions of environmental destruction.

However, when transmitted through Tourist Satisfaction, the indirect path is highly positive (Indirect Effect = +0,476; T = 8,412; p = 0,000). Tourist Satisfaction serves as a full competitive mediator facilitating "mental negotiation." When tourists experience satisfaction enjoying geological vistas combined with comfortable glamping amenities they reframe memories of past degradation into appreciation for successful ecological restoration (territorial reserve).

3. Consumption Values and Green Skepticism Mitigation (H3 Supported)

The strong effect of Satisfaction on Image (β = +0,899; T = 19,062; p = 0,000) validates the Theory of Consumption Values (TCV). Tourists seek Epistemic Value (learning about post-mining geotourism) and Social Value (pride in supporting green initiatives). Delivering verified ecological restoration douses green skepticism, creating a credible destination reputation free from greenwashing allegations.

Managerial and Practical Implications

Destination managers at Tampomas Eco Park and local government officials are advised to implement Attribute Asymmetry Management:Prioritas Pemenuhan Atribut Dasar (Basic Attributes):

1. Prioritize Basic Attributes: Maintain pristine sanitation, organized parking, and circuit safety standards to eliminate complaints.
2. Leverage Excitement Attributes: Highlight geological quarry cliffs through interpretive edutourism panels and restorative photo spots to trigger emotional delight and douse green skepticism.

CONCLUSION

This study concluded that transforming former mining sites into sustainable tourism destinations requires more than the development of physical tourism attributes; understanding tourists' satisfaction and perceptions is also essential. The partial least squares structural equation modeling (PLS-SEM) results demonstrated a significant positive relationship between tourism attributes and tourist satisfaction ($\beta = 0.530$; $t = 9.629$; $p < 0.001$), as well as a strong positive relationship between tourist satisfaction and destination image ($\beta = 0.899$; $t = 19.062$; $p < 0.001$). Notably, tourism attributes exhibited a significant negative direct relationship with destination image ($\beta = -0.505$; $t = 7.705$; $p < 0.001$), whereas the indirect relationship through tourist satisfaction was significantly positive ($\beta = 0.476$; $t = 8.412$; $p < 0.001$). These opposing direct and indirect effects indicated competitive mediation, rather than full mediation, suggesting that tourist satisfaction played an important role in explaining the relationship between tourism attributes and destination image at Tampomas Eco Park, Sumedang Regency. However, the findings did not establish that exposure to former quarry landscapes directly caused negative perceptions or that satisfaction eliminated the stigma associated with post-mining environments.

Theoretically, the findings provided empirical support for the proposed mediation relationships within the Stimulus–Organism–Response (S–O–R) framework in a post-mining tourism context. The Three-Factor Theory offered a complementary perspective for interpreting potential differences in how tourism attributes contribute to satisfaction, although attribute-level asymmetry was not directly tested. Practically, destination managers should prioritize the maintenance of essential amenities, accessibility, and visitor safety while improving the interpretation and presentation of distinctive geological and recreational attractions. The study was limited by its cross-sectional design, tourist-only sample, purposive sampling approach, potential common method bias arising from self-reported questionnaire data, and limited external validity because the research was conducted at a single destination. Future studies should employ longitudinal and multi-destination designs, incorporate perspectives from local communities, destination managers, and other stakeholders, and examine visitor-generated content through text mining of Google Maps reviews to assess changes in tourist satisfaction and destination image over time.

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CONFLICT OF INTEREST

The author(s) declared that this work was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

AUTHOR CONTRIBUTIONS

Angela Marichi Vinsca Destan Putri: Conceptualization, field investigation, data curation, PLS-SEM analysis, and original draft preparation. Anggi Setia Lengkana, Oman Sukirman: Methodology supervision, structural model validation, editing, and critical review. All authors read and approved the final manuscript.

GENERATIVE AI STATEMENT

The author(s) declared that generative artificial intelligence was used in the preparation of this manuscript, specifically to assist in restructuring dissertation content into journal-article format and in refining the clarity and grammatical structure of the English text. This use was conducted in adherence to established ethical guidelines regarding the disclosure of generative AI in scholarly research. Each author has provided substantial intellectual contribution to the work, which has been reviewed for accuracy, and the authors assume full responsibility for the integrity and final content of the manuscript.

REFERENCES

Bahrami Jaf, S., Jafarpour Ghalehteimouri, K., Mousavi, M. N., Janparvar, M., & Tamassoki, E. (2026). Assessing transboundary atmospheric pattern changes and local to national air quality impacts of regional fine dust by using novel NASA satellite data a case study of Sarpol e Zahab Iran. *Discover Environment*, *4*(1), 53.

Cai, K., Cheng, Y., Guo, L., Luo, L., & Chen, J. (2025). Does the urban nighttime tourism experiencescape enhance tourist loyalty? The mediating role of place attachment. Experiencescape Research, 1–20.

Cooper, C., Fletcher, J., Gilbert, D., & Wanhill, S. (1993). Tourism: Principles and practice. Pitman Publishing.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). A primer on partial least squares structural equation modeling (PLS-SEM) (3rd ed.). SAGE Publications.

Han, J., Zhang, Y., Xiao, H., & Zhao, Z. (2026). Green marketing or demarketing? Temporal perspectives on tourists' pro-environmental behavior. Journal of Hospitality and Tourism Management, 66, 101422. https://doi.org/10.1016/j.jhtm.2026.101422.

Hossin, M. Z., & Tao, C. W. (2025). Motivations for traveling to nature-based tourism destinations: Insights from social media analytics on the Great Smoky Mountains. Journal of Smart Tourism, 6(2), 93–110.

Krzemień, A., Frejowski, A., Wacławek, G., & Tokarski, S. (2026). Closure as a new beginning: Repurposing post-mining sites into industrial eco-parks backed by virtual power plants. Applied Sciences, 16(01916).

Mehrabian, A., & Russell, J. A. (1974). An approach to environmental psychology. MIT Press.

Neger, M., Rahid, A. O., Al Jamil, Md. A., Al Nour, H. I., & Bipasha, S. N. (2026). Evaluating the determinants of sustainable tourists perceptions and tourist well being in Bangladesh. Discover Sustainability, 7(321). https://doi.org/10.1007/s43621-026-02634-x.

Novarlia, I., Asy'ari, R., Arif, D. N., & Putra, G. P. (2025). Implementation of sustainable geotourism in Teuweul honeybee farming MSMEs in Margawindu Sumedang District. Unram Journal of Community Service, 6(4), 796–800. https://doi.org/10.29303/ujcs.v6i4.1223.

Pavolová, H., Bakalár, T., & Molokáč, M. (2024). Management of mining brownfields for support of regional tourism. Sustainability, 16(18), 7986. https://doi.org/10.3390/su16187986.

Pham, T.-N. (2026). Modeling tourists' green service intentions through the theory of consumption values: A structural equation modeling approach in Vietnam. Sustainable Futures, 11, 101793. https://doi.org/10.1016/j.sftr.2026.101793.

Rumangkit, S., Prasetyaningtyas, S. W., Hendriana, E., Prabowo, H., & Trung, N. T. (2026). Mapping scientific discourse on sustainable ecotourism: A bibliometric review. Multidisciplinary Reviews, 9, e2026251. https://doi.org/10.31893/multirev.2026251

Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. Journal of Business Research, 22(2), 159–170. https://doi.org/10.1016/0148-2963(91)90050-8

Wang, J., Zhang, Z., Wang, E., Zhao, M., & Zhao, J. (2026). Developing an ecological zoning framework for post-pandemic coastal tourism recovery: Evidence from 5-year remote sensing and tourism data (2019-2024). Environmental Research Communications, 8, 045023. https://doi.org/10.1088/2515-7620/ad3a1b

Wei, X., Maruthaveeran, S., Shahidan, M. F., & Sha, T. (2025). To develop or to be abandoned again? Tourism spatial quality assessment of brownfield landscape regeneration. Journal of Outdoor Recreation and Tourism, 51, 100933.

Yang, T., Chen, J., & Wu, J. (2026). Sustainable harmony: Exploring the impact of glamping attributes on tourist satisfaction through mixed text mining techniques. Journal of Destination Marketing & Management, 40, 101070. https://doi.org/10.1016/j.jdmm.2025.101070.

Yin, Z., et al. (2026). Preferences for destination attributes in Japan's national parks: Focusing on the source of travel information. Journal of Outdoor Recreation and Tourism, 53, 101014. https://doi.org/10.1016/j.jort.2026.101014.

Zhang, L., Wang, Y., Ding, Q., & Shi, Y. (2025). Current status and prospects of ecological restoration and brownfield reuse research based on bibliometric analysis: A literature review. Land, 14, 1185. https://doi.org/10.3390/land14061185