

Creative Economy in Ecotourism: Evidence from Surabaya, Indonesia

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Mangrove Botanical Garden Surabaya`

Article

Keywords: Creative Economy Development, Destination Performance, Ecotourism Quality, Environmental Awareness, Mangrove Botanical Garden Gununganyar, Visitor Experience

Posted Date: October 23rd, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-11159806/v1>

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Additional Declarations: No competing interests reported.

Abstract

The increasing demand for sustainable tourism has encouraged ecotourism destinations to integrate environmental conservation with creative economic activities to enhance destination competitiveness. This study aims to examine the effects of Creative Economy Development and Ecotourism Quality on Destination Performance, with Visitor Experience serving as a mediating variable and Environmental Awareness as a moderating variable. A quantitative research approach was employed using a cross-sectional survey of 300 visitors to Mangrove Botanical Garden Gununganyar Ecotourism, Surabaya, Indonesia. Data were collected through structured questionnaires and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4. The findings reveal that Creative Economy Development and Ecotourism Quality have positive and significant effects on Visitor Experience. Furthermore, Visitor Experience has a significant positive effect on Destination Performance and significantly mediates the relationships between Creative Economy Development and Destination Performance as well as between Ecotourism Quality and Destination Performance. However, Environmental Awareness does not significantly moderate the relationship between Creative Economy Development and Visitor Experience. These findings indicate that memorable visitor experiences constitute the primary mechanism through which creative economy initiatives and ecotourism quality improve destination performance. The study contributes to the sustainable tourism literature by proposing an integrative model that combines creative economy development, ecotourism quality, environmental awareness, visitor experience, and destination performance within a single conceptual framework. Practically, the findings provide valuable insights for destination managers and policymakers in designing experience-oriented and community-based ecotourism strategies to strengthen the long-term sustainability and competitiveness of ecotourism destinations.

INTRODUCTION

The global tourism industry has undergone a profound transformation over the last decade, shifting from a growth-oriented paradigm toward a sustainability-driven development model. Increasing concerns regarding climate change, biodiversity loss, environmental degradation, and the socio-economic resilience of local communities have encouraged governments and destination managers to adopt sustainable tourism strategies that balance environmental conservation, economic development, and community well-being. Within this context, ecotourism has emerged as one of the most promising forms of sustainable tourism because it emphasizes responsible travel to natural areas while promoting environmental education, biodiversity conservation, and local economic empowerment. Blanton et al. (2024) emphasize that mangrove ecotourism can create economic opportunities for local communities while supporting conservation and restoration efforts, highlighting the need to integrate environmental sustainability with community-based economic development in ecotourism destinations. Zhang and Deng (2024) further highlight that the integration of smart technologies into ecotourism can support sustainable destination development by improving resource management, enhancing visitor experiences, and facilitating more efficient and environmentally responsible tourism practices. Recent studies further suggest that successful ecotourism destinations are those capable of integrating

environmental protection with innovative tourism products, stakeholder collaboration, and community participation to achieve long-term destination competitiveness (Lesmana et al., 2022; Djamalu & Hamidun, 2026; Prihatini et al., 2026).

Indonesia possesses enormous potential for ecotourism development due to its rich biodiversity, extensive mangrove forests, wetlands, protected areas, and unique cultural heritage. The Indonesian government has increasingly promoted ecotourism as a strategic sector capable of supporting the Sustainable Development Goals (SDGs), particularly those related to sustainable economic growth, environmental conservation, and inclusive community development. Nevertheless, many ecotourism destinations continue to face persistent challenges, including limited tourism infrastructure, insufficient service quality, weak destination branding, inadequate visitor management, and a lack of integration between conservation initiatives and local economic activities. Consequently, many destinations have not yet achieved optimal destination performance despite possessing outstanding natural resources. Lesmana et al. (2022) further emphasize that the competitiveness of sustainable tourism destinations is shaped by the alignment between destination-side capabilities and tourist demand, highlighting the importance of integrating tourism resources, service quality, stakeholder support, and visitor needs in developing sustainable destination competitiveness. This indicates that destination competitiveness depends not only on ecological attractiveness but also on the ability to create meaningful visitor experiences and generate sustainable economic value for local communities (Lesmana et al., 2022; Eddyono et al., 2021; Djamalu & Hamidun, 2026).

One promising strategy for improving destination competitiveness is the integration of Creative Economy Development into ecotourism. The creative economy has become an important pillar of sustainable regional development because it transforms local knowledge, culture, creativity, and innovation into products and services with high added value. In tourism destinations, creative economy activities include handicrafts, culinary products, cultural performances, photography, digital content creation, environmental education, and community-based tourism experiences. These activities enrich tourists' experiences while simultaneously increasing local income, strengthening destination identity, and preserving indigenous cultural values. Recent tourism innovation studies demonstrate that creative industries significantly contribute to destination differentiation and sustainable competitiveness by encouraging collaboration among local stakeholders, stimulating innovation, and increasing community participation in tourism development (Afifah et al., 2023; Saputra et al., 2026; Wijayanto et al., 2023).

Besides Creative Economy Development, Ecotourism Quality remains a fundamental determinant of destination success. Ecotourism quality encompasses environmental conservation, accessibility, visitor facilities, interpretation services, safety, educational programs, and service excellence that collectively shape visitors' perceptions of a destination. High-quality ecotourism enables tourists to experience authentic interactions with nature while simultaneously enhancing their understanding of environmental conservation and local culture. As tourists increasingly seek sustainable, educational, and authentic travel experiences, destination managers must continuously improve environmental management and service quality to create memorable tourism experiences. Previous studies have consistently

demonstrated that ecotourism quality positively influences tourist satisfaction, destination image, behavioral intentions, and the long-term competitiveness of ecotourism destinations (Mandić & McCool, 2022; Sana et al., 2023; Kim & Hall, 2020; Suhartanto et al., 2021).

In contemporary tourism literature, Visitor Experience has become one of the strongest predictors of destination success. Modern tourists no longer seek only attractive landscapes but increasingly value immersive, authentic, educational, emotional, and transformative experiences throughout their travel journey. Kim and Hall (2020) argue that sustainable tourism can contribute to destination competitiveness by enhancing tourists' experiences and strengthening their attachment to destinations. Their findings suggest that when destinations provide meaningful and satisfying experiences within a sustainable tourism context, tourists are more likely to develop stronger psychological connections with the destination, which can subsequently support favorable behavioral responses and long-term destination competitiveness. Similarly, Rasoolimanesh et al. (2021) demonstrate that memorable tourism experiences significantly shape tourists' behavioral intentions, highlighting the importance of creating meaningful and memorable experiences as part of destination development. Visitor experience is therefore regarded as a multidimensional construct involving sensory, emotional, cognitive, behavioral, and social interactions before, during, and after the visit. Positive experiences enhance visitor satisfaction, destination attachment, revisit intention, destination advocacy, and positive electronic word-of-mouth, all of which significantly improve destination performance. Recent studies further conclude that memorable visitor experiences constitute the primary mechanism through which destination attributes are transformed into sustainable competitive advantages (Hosany et al., 2021; Rather, 2021; Sharma et al., 2023; Zhang et al., 2026).

Another important factor influencing sustainable tourism is Environmental Awareness. Growing public concern regarding climate change, biodiversity conservation, and environmental degradation has significantly changed tourists' travel preferences and behaviors. Environmentally aware visitors tend to prefer destinations that actively implement sustainable practices, support conservation programs, minimize ecological impacts, and provide environmental education. Serio et al. (2025) further highlight that tourists exhibit heterogeneous patterns of pro-environmental behavior, indicating that sustainability-oriented tourism cannot be understood from a single behavioral perspective. Their findings emphasize the importance of recognizing differences in tourists' environmental attitudes and behaviors when developing strategies to promote sustainable tourism practices. Such awareness also influences how visitors evaluate destination quality and engage in ecotourism activities. Consequently, environmental awareness is increasingly recognized as an important behavioral factor that strengthens tourists' appreciation of sustainable tourism practices and supports long-term destination sustainability (Bhaskaran et al., 2024; Widayati, 2024; Cheung et al., 2021; Lee et al., 2022).

Ultimately, the success of an ecotourism destination is reflected in its Destination Performance, which extends beyond traditional indicators such as tourist arrivals and tourism revenue. Contemporary destination performance encompasses multiple dimensions, including visitor satisfaction, destination competitiveness, environmental sustainability, community welfare, destination image, economic

resilience, and long-term conservation outcomes. Recent studies argue that destinations capable of delivering memorable visitor experiences while maintaining environmental quality and community participation are more likely to achieve sustainable competitive advantages. Moreover, satisfied visitors tend to revisit destinations, recommend them through electronic word-of-mouth, and contribute to local economic development, thereby enhancing destination performance over time (Rather, 2021; Hall et al., 2023; Suhartanto et al., 2021; Sharma et al., 2023).

These issues are highly relevant to the Mangrove Botanical Garden Gununganyar Ecotourism Area in Surabaya, Indonesia. Mangrove Botanical Garden Gununganyar is a mangrove-based ecotourism destination that performs essential ecological functions, including coastal protection, biodiversity conservation, and environmental education, while simultaneously providing recreational opportunities for visitors. In recent years, the destination has gradually integrated creative economy initiatives through mangrove-based culinary products, local handicrafts, educational tourism, community enterprises, environmental campaigns, and cultural events involving local residents. These initiatives demonstrate the destination's commitment to combining environmental conservation with community-based economic development, consistent with Indonesia's sustainable tourism agenda (Ministry of Tourism and Creative Economy of Indonesia, 2023; Lesmana et al., 2022; Djamalu & Hamidun, 2026).

Despite its considerable potential, Mangrove Botanical Garden Gununganyar continues to face several development challenges. The integration between creative economy initiatives and ecotourism management remains fragmented, visitor experiences have not been systematically evaluated, and empirical evidence explaining how creative economy development and ecotourism quality jointly influence destination performance remains limited. Furthermore, previous studies have predominantly examined direct relationships between service quality, tourist satisfaction, revisit intention, or destination loyalty. Only a limited number of studies have simultaneously investigated the relationships among Creative Economy Development, Ecotourism Quality, Environmental Awareness, Visitor Experience, and Destination Performance within a single integrative framework, particularly in mangrove-based ecotourism destinations (Mandić & McCool, 2022; Sana et al., 2023; Hosany et al., 2021).

Accordingly, this study proposes an Integrative Model of Ecotourism and Creative Economy toward Destination Performance at Mangrove Botanical Garden Gununganyar Ecotourism. Specifically, the model examines the effects of Creative Economy Development and Ecotourism Quality on Visitor Experience, investigates the moderating role of Environmental Awareness, and evaluates the influence of Visitor Experience on Destination Performance. By integrating these constructs into a comprehensive conceptual framework, this study contributes to the sustainable tourism and destination management literature while providing practical implications for policymakers, destination managers, and local communities seeking to strengthen ecological sustainability, visitor satisfaction, community empowerment, and the long-term competitiveness of ecotourism destinations (Rather, 2021; Sharma et al., 2023; Lesmana et al., 2022).

LITERATURE REVIEW

Creative Economy Development

Creative Economy Development refers to the utilization of creativity, innovation, local culture, and community participation to generate economic value while enhancing destination competitiveness. In the tourism sector, creative economy initiatives include local handicrafts, culinary products, cultural performances, festivals, and educational activities that provide visitors with authentic and interactive experiences. Rather than serving merely as complementary attractions, creative economy activities create destination differentiation by strengthening local identity and increasing visitors' engagement with the destination. Recent studies have shown that integrating creative industries into tourism development contributes to destination competitiveness, visitor satisfaction, and sustainable local economic growth (Li & Kovacs, 2024; Saputra et al., 2025).

Ecotourism Quality

Ecotourism Quality refers to visitors' perceptions of the environmental, service, and management quality of an ecotourism destination. It encompasses environmental conservation, accessibility, safety, visitor facilities, interpretation services, and educational experiences. High ecotourism quality enables visitors to enjoy natural attractions while simultaneously understanding conservation values and local culture. Previous studies indicate that high-quality ecotourism significantly enhances visitor satisfaction, memorable experiences, and destination competitiveness because tourists increasingly expect environmentally responsible and well-managed destinations (Sana et al., 2023; Mandić & McCool, 2023).

Environmental Awareness

Environmental Awareness refers to an individual's knowledge, concern, and responsibility toward environmental protection and sustainable resource management. In the context of ecotourism, environmentally aware tourists tend to appreciate conservation initiatives, support sustainable tourism practices, and engage in environmentally responsible behavior during their visits. Higher environmental awareness also influences visitors' perceptions of destination quality, encourages sustainable behavioral intentions, and strengthens support for ecotourism development. Consequently, environmental awareness has become an important factor in promoting sustainable tourism by encouraging tourists to participate in conservation activities and environmentally responsible practices (Widayati, 2024; Bhaskaran et al., 2024).

Visitor Experience

Visitor Experience is a multidimensional construct comprising tourists' cognitive, emotional, sensory, and behavioral responses throughout their travel journey. Contemporary tourism emphasizes memorable experiences generated through active participation, authenticity, and interaction with local communities and natural environments. Positive visitor experiences improve tourist satisfaction, destination attachment, revisit intention, and positive word-of-mouth, thereby strengthening destination competitiveness. Research also demonstrates that visitor experience serves as a key mechanism linking

destination attributes with sustainable tourism outcomes (Sana et al., 2023; Li et al., 2021). Visitor experience represents the perceptions, emotions, and responses generated through tourists' interactions with destination attributes, activities, services, and environments. As a multidimensional construct, visitor experience encompasses various cognitive, emotional, sensory, and behavioral dimensions that collectively shape how tourists evaluate their tourism experiences (Li et al., 2021). A positive visitor experience can subsequently influence tourists' evaluations and behavioral responses toward a destination. Muhammad et al. (2025) demonstrate that tourist experience influences tourists' revisit decisions, with tourist satisfaction serving as an important mediating mechanism. This finding suggests that meaningful and positive experiences can enhance tourists' satisfaction, which in turn contributes to their intention to revisit the destination. Therefore, visitor experience is not only an outcome of destination attributes but also an important mechanism through which destination experiences can generate favorable tourist behavioral responses.

Destination Performance

Destination Performance reflects the overall success of a tourism destination in achieving its economic, environmental, social, and competitive objectives. Unlike traditional measures that focus only on visitor arrivals, destination performance also encompasses visitor satisfaction, destination image, community welfare, environmental sustainability, and long-term competitiveness. Previous studies suggest that destinations capable of providing memorable visitor experiences while maintaining high-quality tourism services and sustainable management practices are more likely to strengthen destination performance and achieve long-term competitive advantages (Hosany et al., 2021; Rather, 2021; Widayati, 2024).

Methodology

This study employed a quantitative approach to examine the relationships among Creative Economy Development, Ecotourism Quality, Environmental Awareness, Visitor Experience, and Destination Performance at Mangrove Botanical Garden Gununganyar Ecotourism Surabaya. The target population consisted of visitors who had visited the destination at least once. Using purposive sampling, 300 valid respondents were selected based on the criteria of being at least 18 years old and having visited Mangrove Botanical Garden Gununganyar. Data were collected through a structured questionnaire adapted from previous studies and measured using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4. The analysis consisted of evaluating the measurement model through indicator reliability, composite reliability, Cronbach's alpha, average variance extracted (AVE), and discriminant validity, followed by assessment of the structural model using R^2 , f^2 , Q^2 , and bootstrapping with 5,000 resamples to test the proposed hypotheses. Following the recommendation of Hair et al. (2022), a hypothesis was considered significant when $t > 1.96$ and $p < 0.05$.

RESULT

The following figure presents the results of data analysis using SmartPLS, illustrating the research model and the relationships between the variables analyzed, as shown in Fig. 1.

Measurement Model Evaluation

The measurement model was evaluated by examining outer loadings, Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE) to assess the reliability and validity of the measurement scales. As presented in Table 1, all indicator outer loading values exceeded the recommended threshold of 0.70, indicating satisfactory indicator reliability (Hair et al., 2022). Furthermore, the Cronbach's alpha and composite reliability values for all constructs were greater than 0.70, demonstrating strong internal consistency reliability. The AVE values also exceeded the recommended cutoff value of 0.50, confirming adequate convergent validity for each construct. Overall, the results presented in Table 1 indicate that all measurement items are valid and reliable, and therefore suitable for subsequent structural model analysis.

Table 1
Measurement Model Evaluation

Variable	Indicator	Outer Loading	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
Creative Economy Development	CED1	0.904	0.962	0.962	0.839
	CED2	0.931			
	CED3	0.923			
	CED4	0.926			
	CED5	0.896			
	CED6	0.915			
Ecotourism Quality	EQ1	0.939	0.967	0.968	0.859
	EQ2	0.901			
	EQ3	0.936			
	EQ4	0.931			
	EQ5	0.910			
	EQ6	0.944			
Visitor Experience	VISE1	0.952	0.978	0.978	0.901
	VISE2	0.954			
	VISE3	0.942			
	VISE4	0.945			
	VISE5	0.959			
	VISE6	0.943			
Environmental Awareness	EW1	0.936	0.978	0.978	0.900
	EW2	0.963			
	EW3	0.959			
	EW4	0.971			
	EW5	0.943			
	EW6	0.918			
Destination Performance	DP1	0.898	0.968	0.969	0.863
	DP2	0.945			

Variable	Indicator	Outer Laoding	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
	DP3	0.930			
	DP4	0.953			
	DP5	0.941			
	DP6	0.904			

Structural Model Evaluation

The structural model was evaluated using the coefficient of determination (R^2) to assess the model's explanatory power. As shown in Table 2, the R^2 value for Visitor Experience indicates that the construct is substantially explained by Creative Economy Development, Ecotourism Quality, and Environmental Awareness. Meanwhile, the R^2 value for Destination Performance demonstrates that its variance is explained by Visitor Experience, indicating a strong predictive capability of the proposed model. According to Hair et al. (2022), R^2 values of 0.75, 0.50, and 0.25 can be interpreted as substantial, moderate, and weak explanatory power, respectively. Therefore, the obtained R^2 values suggest that the proposed research model has moderate to substantial explanatory power, supporting its suitability for explaining destination performance in the context of Mangrove Botanical Garden Gununganyar Ecotourism.

Table 2
Structural Model Evaluation

Variable	R-square adjusted
Destination Performance	0.866
Visitor Experience	0.907

Path Coefficient

Table 3 presents the path coefficient results obtained from the SmartPLS analysis, illustrating the direction and strength of the relationships between the variables in the proposed research model.

Table 3
Path Coefficient

Hypothesis	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Creative Economic Development -> Visitor Experience	0.449	0.452	0.066	6.827	0.000
Ecotourism Quality -> Visitor Experience	0.269	0.268	0.068	3.974	0.000
Ecotourism Awareness -> Visitor Experience	0.266	0.263	0.074	3.614	0.000
Visitor Experience -> Destination Performance	0.931	0.930	0.015	62.209	0.000
Ecotourism Awareness x Creative Economic _Development -> Visitor Experience	-0.002	-0.002	0.006	0.403	0.687
Creative Economic Development -> Visitor Experience -> Destination Performance	0.418	0.420	0.061	6.861	0.000
Ecotourism Quality -> Visitor Experience -> Destination Performance	0.250	0.249	0.063	3.964	0.000

Discussion

H1. The Effect of Creative Economy Development on Visitor Experience

The findings demonstrate that Creative Economy Development has a positive and significant effect on Visitor Experience ($\beta = 0.449$, $t = 6.827$, $pvalue\ 0.000$). Therefore, Hypothesis 1 is supported. The standardized path coefficient indicates that improvements in creative economy development substantially enhance visitors' experiences at Mangrove Botanical Garden Gununganyar Ecotourism. This result suggests that integrating creative economic activities into ecotourism destinations creates additional experiential value that extends beyond the enjoyment of natural attractions.

The positive relationship can be explained by the increasing importance of experience-based tourism, in which visitors seek authentic, participatory, and meaningful activities rather than merely observing natural landscapes. Creative economy initiatives including mangrove-based handicrafts, local culinary products, environmental education programs, cultural performances, storytelling, and community-based entrepreneurship allow tourists to interact directly with local communities and actively participate in

destination activities. Such interactions generate emotional engagement, knowledge acquisition, and memorable experiences, which ultimately improve visitors' overall evaluations of the destination. The findings are consistent with the experience economy perspective, which argues that memorable experiences are created when tourists actively participate in unique and authentic activities rather than passively consuming tourism products (Chan, 2021; Li et al., 2021).

These findings also support the growing literature on creative tourism, which emphasizes that creativity enhances destination attractiveness by transforming local culture, traditions, and environmental resources into distinctive tourism experiences. Rather than functioning solely as supporting economic activities, creative industries contribute directly to visitor satisfaction because they enable tourists to co-create experiences through interaction with local residents. Tourists increasingly value destinations where they can learn traditional skills, participate in environmental conservation, and purchase authentic local products that represent the destination's identity. Consequently, creative economy development strengthens destination differentiation while simultaneously increasing tourists' cognitive, emotional, and behavioral engagement throughout their visits (Panduputri & Novani, 2021; Li et al., 2021).

Furthermore, the findings indicate that the creative economy contributes to sustainable tourism development by simultaneously generating economic, social, and environmental benefits. Community participation in producing creative products not only increases household income but also encourages local people to preserve cultural traditions and natural resources. This collaborative process creates a mutually beneficial relationship in which visitors obtain authentic tourism experiences while local communities receive economic incentives to support conservation initiatives. Recent studies similarly conclude that destinations integrating community creativity with ecotourism are more competitive because they produce higher experiential value and stronger destination attachment among visitors (Li et al., 2021; Hosany et al., 2021; Suhartanto et al., 2021).

From a managerial perspective, these findings suggest that Mangrove Botanical Garden Gununganyar should strengthen partnerships with local MSMEs, community organizations, artists, and educational institutions to continuously develop innovative ecotourism products. Programs such as mangrove batik workshops, eco-friendly handicraft production, local culinary festivals, environmental interpretation activities, digital storytelling, and conservation volunteering can further enrich visitor experiences while improving local economic resilience. These initiatives also align with sustainable destination management because they create economic opportunities without compromising environmental conservation. Consequently, creative economy development should be viewed not only as a source of local income but also as a strategic mechanism for enhancing visitor experience and long-term destination competitiveness.

Overall, the empirical evidence confirms that Creative Economy Development serves as a significant antecedent of Visitor Experience. The findings reinforce previous research demonstrating that tourists increasingly prefer destinations offering authentic, educational, and participatory experiences. Therefore, destination managers should continuously integrate creativity, innovation, and community participation

into ecotourism management to strengthen experiential quality and achieve sustainable destination performance.

H2. The Effect of Ecotourism Quality on Visitor Experience

The results reveal that Ecotourism Quality has a positive and significant effect on Visitor Experience ($\beta = 0.269$, $t = 3.974$, $p\text{value } 0.000$). Accordingly, Hypothesis 2 is accepted. Although the standardized coefficient is smaller than that of Creative Economy Development, the findings indicate that ecotourism quality remains a critical determinant of visitors' overall experiences. This suggests that high-quality environmental management and tourism services substantially contribute to creating satisfying and memorable experiences for visitors.

Ecotourism quality encompasses multiple dimensions, including environmental cleanliness, biodiversity conservation, accessibility, visitor safety, interpretation services, infrastructure, educational facilities, and service quality. Visitors evaluate their experiences not only based on the attractiveness of natural resources but also on how effectively these resources are managed and interpreted. Well-maintained facilities, informative interpretation boards, environmentally friendly infrastructure, and professional tourism services increase tourists' comfort while simultaneously enhancing their understanding of conservation values. Consequently, visitors perceive greater experiential quality when environmental sustainability is accompanied by excellent destination management (Chan, 2021; Li et al., 2021).

The findings support previous ecotourism studies indicating that service quality and environmental quality are fundamental determinants of tourist experience. Tourists visiting natural destinations increasingly expect more than scenic landscapes; they seek safe, educational, accessible, and environmentally responsible tourism experiences. When destinations successfully maintain ecological integrity while providing high-quality visitor facilities and interpretation services, tourists develop stronger emotional attachment, satisfaction, and destination loyalty. These findings are consistent with previous studies demonstrating that ecotourism quality positively influences tourists' experiences and subsequent behavioral intentions (Li et al., 2021; Dewi & Abidin, 2021).

The relatively lower coefficient compared with Creative Economy Development indicates that, although environmental quality remains essential, visitors at Mangrove Botanical Garden Gununganyar appear to place greater value on interactive and creative experiences. This finding reflects the changing characteristics of contemporary tourists, who increasingly seek destinations capable of combining environmental conservation with experiential learning and community interaction. In other words, environmental quality serves as the foundation of visitor experience, whereas creative economy initiatives enrich and personalize those experiences. Previous tourism studies similarly suggest that memorable tourism experiences emerge through the integration of environmental quality, visitor engagement, authenticity, and experiential learning rather than through natural attractions alone (Li et al., 2021; Understanding Memorable Tourism Experiences, 2021).

From a practical standpoint, Mangrove Botanical Garden Gununganyar should continuously improve ecotourism quality through better maintenance of mangrove boardwalks, enhanced visitor safety, improved accessibility, multilingual interpretation signage, digital information systems, waste management, and environmental education programs. Destination managers should also invest in guide training and interactive interpretation activities to ensure that visitors not only enjoy the scenery but also understand the ecological importance of mangrove conservation. Such improvements will strengthen visitors' perceptions of destination quality and contribute to more memorable tourism experiences. Overall, these findings confirm that Ecotourism Quality is an important predictor of Visitor Experience. While natural attractions remain the core resource of ecotourism destinations, their long-term competitiveness depends on effective environmental management, high-quality visitor services, and educational experiences that transform ordinary visits into meaningful and memorable tourism experiences.

H3. The Effect of Visitor Experience on Destination Performance

The results reveal that Visitor Experience has a positive and highly significant effect on Destination Performance ($\beta = 0.931$, $t = 62.209$, $p\text{value } 0.000$). The exceptionally high path coefficient indicates that Visitor Experience is the strongest predictor of Destination Performance within the proposed structural model. Therefore, Hypothesis 3 is supported. This finding suggests that the overall performance of Mangrove Botanical Garden Gununganyar Ecotourism depends primarily on visitors' experiences during their visits rather than solely on physical attractions or environmental resources. A memorable and meaningful experience encourages visitors to evaluate the destination positively, increases their willingness to revisit, strengthens destination loyalty, and stimulates positive word-of-mouth, all of which contribute directly to destination competitiveness and sustainability.

The findings support the Experience Economy Theory proposed by Pine and Gilmore, which argues that memorable experiences constitute the highest form of economic value because they generate emotional attachment and long-term customer loyalty. In tourism, visitor experience extends beyond service encounters and encompasses cognitive, emotional, sensory, educational, and social interactions throughout the travel journey. When tourists actively engage in destination activities and perceive authenticity, learning opportunities, and emotional fulfillment, they are more likely to develop favorable perceptions of destination performance (Hosany et al., 2021; Suhartanto et al., 2021; Kim & Hall, 2020).

Recent tourism literature consistently demonstrates that visitor experience has become one of the most influential determinants of destination success. Rather than evaluating destinations solely based on natural scenery or infrastructure, contemporary tourists increasingly emphasize immersive experiences, authenticity, and personal transformation. Positive visitor experiences improve destination image, tourist satisfaction, revisit intention, electronic word-of-mouth (e-WOM), and destination advocacy, thereby strengthening the long-term competitiveness of tourism destinations (Rather, 2021; Sharma et al., 2023; Zhang et al., 2026). Moreover, memorable experiences encourage tourists to share their experiences

through digital platforms and social media, significantly expanding destination visibility and attracting new visitors. Consequently, destinations capable of designing meaningful tourism experiences are better positioned to achieve sustainable destination performance.

The findings are particularly relevant for mangrove ecotourism destinations such as Mangrove Botanical Garden Gununganyar. Visitors no longer expect only environmental conservation but also educational activities, interactive interpretation, community engagement, digital storytelling, and authentic local experiences. Programs such as mangrove planting, bird watching, environmental education, local culinary experiences, and creative workshops enrich visitor engagement while simultaneously strengthening destination identity. These activities transform ecotourism from passive sightseeing into experiential learning, thereby increasing visitors' perceived value and destination satisfaction (Kim & Hall, 2020; Suhartanto et al., 2021).

From a managerial perspective, the findings suggest that destination managers should prioritize experience design rather than focusing exclusively on infrastructure development. Investments in visitor interpretation centers, digital guide applications, interactive educational programs, community-based tourism activities, and personalized visitor services are likely to generate stronger destination performance than investments limited to physical facilities. Since Visitor Experience exhibits the largest path coefficient in the structural model, improving experiential quality should become the primary strategic objective of destination management. Overall, this finding confirms that Visitor Experience functions as the principal mechanism through which ecotourism destinations achieve sustainable performance. Destinations capable of delivering memorable, authentic, educational, and emotionally engaging experiences are more likely to enhance destination competitiveness, visitor loyalty, community welfare, and long-term sustainability.

H4. The Moderating Effect of Environmental Awareness on the Relationship between Creative Economy Development and Visitor Experience

The empirical results indicate that Environmental Awareness does not significantly moderate the relationship between Creative Economy Development and Visitor Experience ($\beta = -0.002$, $t = 0.403$, $p\text{-value} = 0.687$). Since the p -value exceeds the significance threshold of 0.05, Hypothesis 4 is rejected. The insignificant moderating effect suggests that visitors' levels of environmental awareness neither strengthen nor weaken the influence of Creative Economy Development on Visitor Experience at Mangrove Botanical Garden Gununganyar Ecotourism.

This finding is interesting because previous studies generally argue that environmentally conscious tourists tend to appreciate sustainable tourism initiatives more positively than tourists with lower environmental awareness (Cheng et al., 2021; Widayati, 2024). However, the present findings imply that the attractiveness of creative economy activities at Mangrove Botanical Garden Gununganyar is perceived positively by visitors regardless of their environmental attitudes. Activities such as purchasing mangrove-derived products, participating in creative workshops, enjoying local culinary experiences, and

interacting with local communities appear to provide experiential value that is independent of visitors' environmental consciousness.

One possible explanation is that the creative economy activities currently offered by Mangrove Botanical Garden Gununganyar primarily emphasize cultural creativity, local products, and recreational experiences rather than explicitly communicating environmental conservation values. Consequently, visitors evaluate these activities based on enjoyment, novelty, authenticity, and entertainment rather than on environmental considerations. As suggested by recent tourism studies, tourists may participate in creative tourism experiences because they seek learning opportunities, social interaction, and authentic cultural engagement instead of environmental education alone (Richards, 2021; OECD, 2022).

Another explanation concerns the relatively homogeneous characteristics of visitors. Since Mangrove Botanical Garden Gununganyar primarily attracts domestic tourists, students, educational groups, and families, the variation in environmental awareness among respondents may be insufficient to generate statistically significant moderation effects. In SEM analysis, moderating variables often require substantial variability among respondents to demonstrate interaction effects. Therefore, although environmental awareness remains important for promoting sustainable tourism behavior, it may not directly influence how visitors perceive creative economy initiatives in this particular destination (Hair et al., 2022).

The insignificant moderation also indicates that creative economy development itself already possesses sufficient experiential value without requiring high levels of environmental awareness. Visitors appreciate authentic local products, community participation, and creative activities because these experiences are enjoyable and memorable. This finding suggests that destination managers should not assume that environmentally conscious tourists represent the only market segment for creative tourism products. Instead, creative economy initiatives should be designed to appeal broadly while gradually incorporating stronger environmental messages through interpretation, storytelling, eco-labeling, and conservation-based educational programs.

From a practical perspective, Mangrove Botanical Garden Gununganyar could strengthen the integration between creative economy and environmental education by developing eco-certified products, incorporating sustainability narratives into handicrafts and culinary products, organizing conservation-themed festivals, and encouraging visitors to participate in mangrove restoration activities. Such initiatives may gradually increase visitors' environmental awareness while simultaneously enriching their tourism experiences. Consequently, environmental awareness may become a stronger moderating factor in future destination development.

Overall, the rejection of Hypothesis 4 provides an important theoretical contribution by suggesting that Environmental Awareness may not always strengthen the relationship between Creative Economy Development and Visitor Experience. Instead, the experiential quality of creative tourism products may itself be sufficient to generate positive visitor experiences regardless of visitors' environmental attitudes. Future studies should therefore examine additional moderating variables such as environmental

knowledge, destination involvement, or sustainable lifestyle orientation to better understand individual differences in ecotourism experiences.

H5. The Mediating Role of Visitor Experience in the Relationship between Creative Economy Development and Destination Performance

The findings indicate that Visitor Experience significantly mediates the relationship between Creative Economy Development and Destination Performance ($\beta = 0.418$, $t = 6.861$, $p\text{value } 0.000$). Therefore, Hypothesis 5 is supported. The significant indirect effect demonstrates that Creative Economy Development contributes to Destination Performance primarily by enhancing visitors' experiences. This finding implies that creative economy initiatives alone are insufficient to improve destination performance unless they generate meaningful, memorable, and engaging experiences for visitors. In other words, Visitor Experience serves as the psychological and behavioral mechanism through which creative economy activities are transformed into superior destination outcomes.

This result is consistent with the Stimulus–Organism–Response (S–O–R) Theory, which explains that destination attributes (stimulus), such as creative tourism products and community-based economic activities, first influence visitors' internal evaluations and emotional responses (organism), which subsequently determine behavioral outcomes (response), including destination loyalty, positive word-of-mouth, revisit intention, and overall destination performance (Mehrabian & Russell, 1974). In the context of Mangrove Botanical Garden Gununganyar, creative economy initiatives including mangrove-derived culinary products, eco-friendly handicrafts, educational workshops, local festivals, and community-based tourism experiences stimulate visitors' emotional engagement and experiential value. These positive experiences subsequently strengthen visitors' perceptions of destination quality and improve destination performance.

The mediation effect further confirms that tourists increasingly evaluate destinations based on the quality of experiences rather than solely on the availability of tourism products. Contemporary tourism consumers seek authenticity, interaction, participation, and emotional engagement throughout their travel journey. Consequently, creative economy development contributes to destination competitiveness because it enriches tourists' experiences through cultural interaction, local storytelling, environmental education, and participatory activities. Previous studies similarly conclude that creative tourism strengthens destination competitiveness by increasing experiential value, destination attachment, tourist satisfaction, and loyalty (Richards, 2021; Duxbury et al., 2021; Hosany et al., 2021).

The findings are also aligned with the concept of experience co-creation, which argues that tourism experiences are jointly created through interactions among tourists, local communities, destination managers, and tourism service providers. Community participation represents one of the principal characteristics of the creative economy because local residents actively produce tourism experiences rather than merely supplying tourism products. Such collaborative interactions generate emotional attachment and memorable experiences, ultimately improving destination performance through stronger visitor satisfaction and positive electronic word-of-mouth (Rather, 2021; Suhartanto et al., 2021).

For Mangrove Botanical Garden Gununganyar, the significant mediation suggests that investments in creative economy development should prioritize visitor engagement rather than product commercialization alone. Destination managers should expand experiential programs such as mangrove planting, eco-craft workshops, local culinary demonstrations, community storytelling, conservation volunteering, and digital interpretation. These activities not only increase the economic value of local creative industries but also strengthen visitor experiences, which subsequently improve destination competitiveness, visitor loyalty, and sustainable tourism performance.

From a theoretical perspective, this study extends previous tourism literature by confirming that Visitor Experience functions as a critical mediating variable linking Creative Economy Development with Destination Performance. While previous studies primarily investigated the direct influence of creative tourism on tourist satisfaction or revisit intention, the present findings demonstrate that destination performance is achieved through visitors' experiential evaluations. Therefore, the integration of creative economy initiatives with experiential tourism design represents an important strategy for sustainable destination development.

H6. The Mediating Role of Visitor Experience in the Relationship between Ecotourism Quality and Destination Performance

The results further demonstrate that Visitor Experience significantly mediates the relationship between Ecotourism Quality and Destination Performance ($\beta = 0.250$, $t = 3.964$, $p\text{value } 0.000$). Accordingly, Hypothesis 6 is accepted. This finding indicates that improvements in ecotourism quality enhance destination performance because they first create positive visitor experiences. Consequently, Visitor Experience serves as an essential mechanism through which environmental quality, conservation management, service quality, and visitor facilities influence destination success.

This finding is supported by the Expectation Confirmation Theory, which suggests that tourists evaluate destination performance by comparing their actual experiences with their pre-visit expectations. High-quality ecotourism destinations provide visitors with clean environments, accessible facilities, effective interpretation services, professional guides, environmental education, and well-preserved natural resources. When these attributes meet or exceed visitors' expectations, tourists experience higher satisfaction and stronger emotional attachment, leading to favorable evaluations of destination performance (Oliver, 1980; Suhartanto et al., 2021).

The significant mediation also indicates that ecotourism quality alone does not automatically improve destination performance. Instead, destination quality must be translated into enjoyable, educational, and memorable visitor experiences. This finding reflects current tourism trends in which visitors increasingly seek meaningful interactions with nature rather than passive observation of natural attractions. Educational interpretation, biodiversity conservation activities, guided ecological tours, and community interaction significantly strengthen visitors' perceptions of environmental quality while simultaneously enhancing experiential value (Kim & Hall, 2020; Chan, 2021).

Previous studies similarly report that environmental quality positively influences destination competitiveness through visitor satisfaction and memorable tourism experiences. Visitors who perceive high environmental quality tend to develop stronger destination attachment, greater trust in destination management, and higher intentions to revisit and recommend destinations to others. These behavioral outcomes ultimately improve destination performance by increasing visitor retention, strengthening destination reputation, and generating sustainable economic benefits (Hosany et al., 2021; Rather, 2021; Zhang et al., 2026).

The findings have important practical implications for Mangrove Botanical Garden Gununganyar. Destination managers should continue investing in environmental conservation, visitor safety, ecological interpretation, waste management, biodiversity protection, and eco-friendly infrastructure while simultaneously designing engaging tourism experiences. For example, the construction of interpretation centers, digital educational applications, mangrove ecosystem exhibitions, citizen science programs, and environmental volunteering activities can significantly enhance visitors' understanding of conservation while creating memorable tourism experiences. These initiatives enable ecotourism quality improvements to generate stronger destination performance through enhanced visitor experience.

Overall, this study confirms that Visitor Experience is a fundamental mediating mechanism connecting Ecotourism Quality with Destination Performance. The findings highlight that sustainable destination competitiveness depends not merely on preserving environmental resources but also on transforming ecological quality into meaningful experiences that encourage visitor satisfaction, loyalty, and destination advocacy.

CONCLUSION

This study demonstrates that Creative Economy Development and Ecotourism Quality are important drivers of Visitor Experience, which subsequently serves as the primary determinant of Destination Performance at Mangrove Botanical Garden Gununganyar Ecotourism. The findings reveal that Creative Economy Development exerts a stronger influence on Visitor Experience than Ecotourism Quality, highlighting the importance of integrating community-based creative activities with ecotourism to create authentic and memorable visitor experiences. Furthermore, Visitor Experience significantly mediates the relationships between both Creative Economy Development and Ecotourism Quality with Destination Performance, confirming that positive visitor experiences are the key mechanism through which destination resources are translated into superior tourism performance. However, Environmental Awareness was not found to significantly moderate the relationship between Creative Economy Development and Visitor Experience, suggesting that the experiential value of creative tourism activities can be appreciated regardless of visitors' environmental awareness levels.

Theoretically, this study contributes to sustainable tourism literature by proposing an integrative model that combines creative economy development, ecotourism quality, environmental awareness, visitor experience, and destination performance within a single framework. Practically, the findings suggest that

destination managers should prioritize experience-centered tourism development by strengthening community participation, expanding creative economy initiatives, improving ecotourism quality, and designing interactive conservation-based tourism programs. Such strategies will enhance visitor satisfaction, strengthen destination competitiveness, and support the long-term sustainability of Mangrove Botanical Garden Gununganyar as a leading ecotourism destination.

Declarations

ACKNOWLEDGEMENT

We extend our gratitude to the Ministry of Higher Education, Science, and Technology of the Republic of Indonesia, Surabaya City Regional Research and Innovation Agency (BRIDA), and Surabaya Mangrove Botanical Garden for the support and collaboration in the downstreaming of research at the Gunung Anyar Mangrove Botanical Garden, Surabaya.

FUNDING DECLARATION

This research was funded by Ministry of Research, Technology and Higher Education, Indonesia (2026)

DATA AVAILABILITY: The data that support the findings of this study are available on request.

ETHICAL DECLARATION: This study received ethical clearance from the Research Ethics Commission of Universitas Ciputra (Number. 082/EC/KEP-UC/IV/2026) on April 28, 2026. Declared to be ethically appropriate in accordance to 7 (seven) WHO 2011 Standards, 1) Social Values, 2) Scientific Values, 3) Equitable Assessment and Benefits, 4) Risks, 5) Persuasion/Exploitation, 6) Confidentiality and Privacy, and 7) Informed Consent, referring to the 2016 CIOMS Guidelines and/or Declaration of Helsinki. This is as indicated by the fulfillment of the indicators of each standard.

Accordance: Confirming that all research was performed in accordance with relevant named guidelines and regulations referring to the 2016 CIOMS Guidelines and/or Declaration of Helsinki. This is as indicated by the fulfillment of the indicators of each standard.

Informed consent: Confirming that informed consent was obtained from all participants and/or their legal guardians.

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Figures

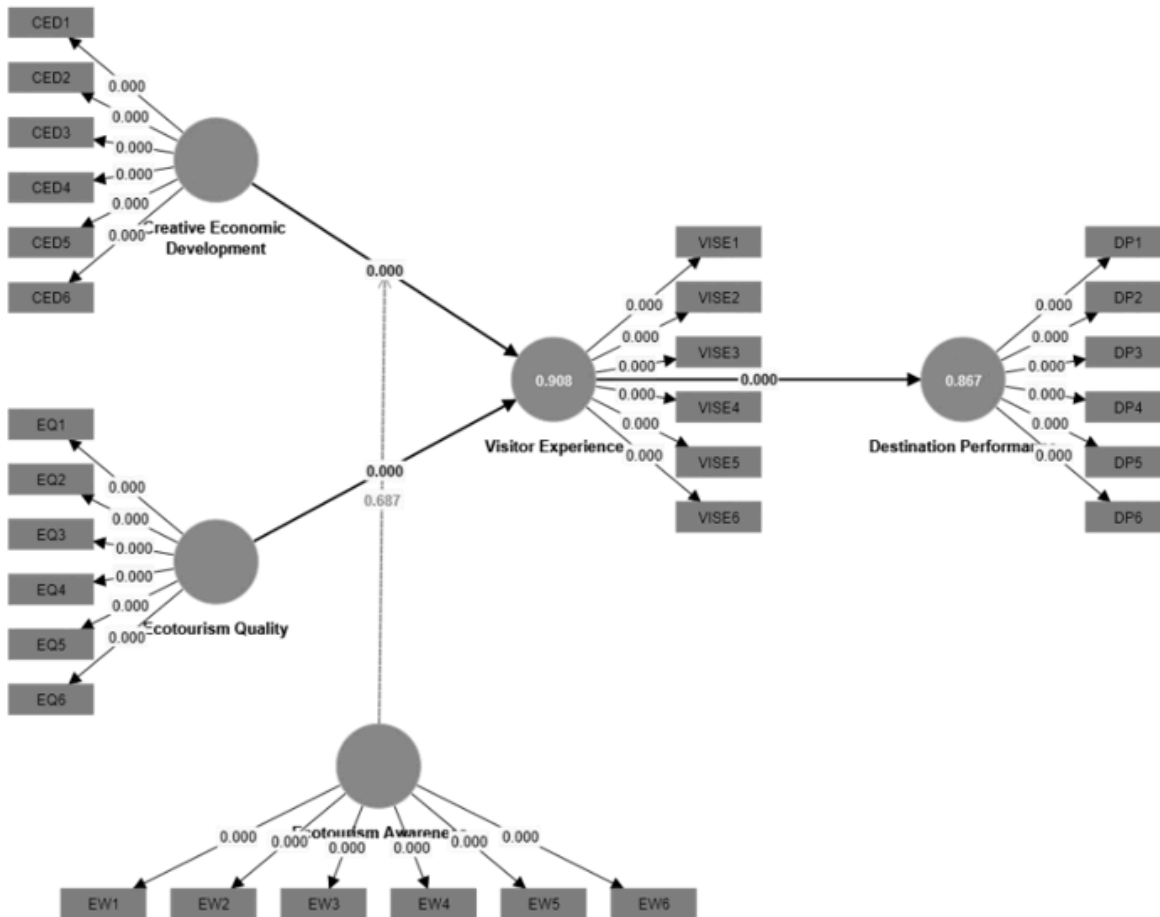


Figure 1

SmartPLS Output

Supplementary Files

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- [Data.xlsx](#)