

Tourist perceptions of green tourism in a UNESCO world heritage site: Developing the Seruni model in Jatiluwih, Bali

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Abstract: This study examines tourists' perceptions of Jatiluwih, a UNESCO World Heritage Site in Bali, as a green tourism destination. As tourism pressure increases, understanding visitor perspectives is essential for designing inclusive and sustainable community-based tourism strategies. The methodology employed a quantitative approach, with data collected from 115 tourists (85 international and 30 domestic) and analyzed through Exploratory Factor Analysis (EFA). The findings indicate that both international and domestic tourists have positive views of Jatiluwih's green tourism features, particularly its environmental quality, such as clean air, water, and landscape, which strongly influence visitor satisfaction. For international tourists, six main factors were identified: Sustainability of Environmental and Infrastructure, Understanding through Cultural Immersion, Nature-Based Inclusive Travel Experience, Rich Local Cultural and Economic Experience, Ecotourism Engagement, and Involvement of the Local Community. Conversely, domestic tourists emphasize two primary dimensions: the Sustainability of Environmental and Infrastructure and Cultural Ecotourism. These seven components were integrated into a conceptual model named SERUNI. The SERUNI model provides both conceptual and practical implications for advancing green tourism in Jatiluwih, ensuring that future development harmonizes environmental preservation, cultural integrity, and community empowerment while maintaining the destination's global appeal as a UNESCO World Heritage Site.

Keywords: Community-based tourism, Green tourism, Jatiluwih, Sustainable development, Tourist perception, UNESCO World Heritage.

1. Introduction

Tourism has evolved into a powerful engine of global economic transformation, driving growth across multiple sectors and influencing socio-economic patterns in developed and developing countries. Tourism as a significant industry is one of the most remarkable changes ever occurring in global economic activity [1]. Foreign exchange receipts from tourism make an important contribution to the economies of developing countries, in terms of income, employment, and balance of payments effects. Thus, many developing countries pursue tourism for job creation, economic diversification, and foreign currency income [2, 3]. Tourism brings economic development opportunities to tourism destinations and presents numerous sustainability challenges [4]. This dual role of tourism as both a catalyst for economic growth and a potential source of sustainability concerns highlights the urgent need for integrated, inclusive, and environmentally conscious tourism development strategies.

Sustainability in tourism remains one of the most pressing and complex issues in the global tourism agenda. The challenges of tourism sustainability are very diverse including environmental problems, such as environmental damage due to mass tourism, degradation of natural resources, climate change, and loss of biodiversity, inadequate waste management, social and cultural issues, such as density and cultural erosion [5] and economic development problems, such as unequal income distribution and

significant capital outflows [6]. Sustainable tourism practices emerged as a social phenomenon because they describe the interaction between society and business [7]. Addressing these multidimensional challenges requires integrated and participatory strategies that ensure a long-term balance between economic gains, cultural integrity, and environmental preservation.

Environmentally based and sustainable tourism is increasingly in demand by world tourists. *Green tourism* is a term used in sustainable tourism practices that guarantees future needs for adequate environmental, economic, social, and cultural resources [8, 9]. Travellers are becoming more aware of the environmental impact of their travels and are increasingly engaging in pro-environmental behaviour. Traveller behaviour includes raising awareness of the importance of environmental management and the need for sustainable tourism practices [10, 11]. The large volume of visitors and the pressure on the environment will harm a destination. The excessive consumption associated with tourism generates considerable waste, which can disrupt ecosystem functions and cause damage to natural habitats [12-14]. Therefore, adopting green tourism principles is a response to changing tourist preferences and a strategic imperative for ensuring the ecological resilience and long-term sustainability of tourism destinations.

The destination of Jatiluwih, Bali, is famous for its unique cultural and natural scenery and is recognized as a UNESCO World Heritage Site due to its traditional Subak irrigation system. Jatiluwih is increasingly attracting many tourists seeking an authentic experience. However, this surge in tourist arrivals has posed several challenges threatening the region's sustainability. One significant issue is the increasing traffic congestion in Jatiluwih, primarily attributed to the limited parking infrastructure that cannot accommodate the rising number of vehicles. This situation mirrors challenges faced in other tourist destinations, where inadequate transportation planning leads to environmental degradation and diminished visitor experiences [15]. The congestion affects residents' quality of life and undermines the appeal that draws tourists to the area.

Another pressing concern is converting agricultural land into tourism-related developments, such as villas and commercial establishments. This trend jeopardizes the integrity of the Subak system and the agricultural heritage of Jatiluwih. Studies have shown that in regions like Ubud and Bali, the expansion of tourism infrastructure has led to significant changes in land use, often at the expense of agricultural lands [16]. The loss of farmland not only threatens food security but also disrupts the socio-cultural fabric of local communities.

These challenges underscore the need for a sustainable tourism development model that balances economic growth with environmental conservation and cultural preservation. Green tourism, which emphasizes responsible travel practices and community involvement, offers a viable pathway to achieve this balance. Understanding tourist perceptions of green tourism is crucial in designing strategies that align with visitor expectations and sustainability goals.

These issues reflect a broader paradox in heritage-based tourism: the attributes that make a site attractive—cultural richness, landscape integrity, and ecological harmony—can be compromised if not managed responsibly. In the context of Jatiluwih, these challenges highlight the importance of developing tourism strategies that prioritize environmental protection, cultural preservation, and community empowerment. Furthermore, while numerous studies have addressed the importance of involving local communities in sustainable tourism planning, there is a lack of empirical data incorporating tourist perspectives in assessing a destination's green tourism attributes. Understanding how tourists perceive environmental responsibility, local economic vitality, cultural diversity, and experiential richness in Jatiluwih is essential to formulating adaptive and inclusive green tourism models.

2. Literature Review

2.1. Sustainable Tourism

The philosophy of sustainable tourism was developed from sustainable development, a comprehensive approach to growth including three interconnected dimensions: economic growth, social

justice, and environmental protection. As a result, to achieve sustainability, all three elements must be addressed [17]. Sustainable tourism seeks to balance the environmental, social, and economic impacts of tourism activities. Sustainable tourism minimizes environmental negative impacts, promotes social equality, and ensures economic benefits for local communities [18, 19].

Sustainable tourism that focuses on nature conservation and responsible travel practices. Ecotourism aims to directly or indirectly contribute to nature conservation, while responsible tourism emphasizes ethical behavior and minimizes negative impacts [20]. Sustainable tourism is a way to manage the impact on the physical location on which tourism activities depend and differentiate destinations from the competition. In contrast, ecotourism is nature-based tourism and involves education and interpretation of the natural environment and sustainable ecological management [21-24]. Conservation initiatives often consider ecotourism as a potential opportunity, tourism experiences, land-use practices, or conservation tools [25].

Lohmann and Netto [26] proposed a guide to sustainable development with eight dimensions or principles: ecological, natural, social, cultural, territorial, economic, national politics, and international politics. Murphy and Price [27], explain how these sustainability principles should support tourism actions and emphasise that both tourism activities and facilities must have the following dimensions: (1) Resource management adheres to the fairest rules, allowing for benefits for investors and local communities; (2) Intergenerational equality and respect for ways of life and customs; (3) Aesthetic appeal, highlighting the importance of the diversity of natural, urban, and rural landscapes; (4) Minimal intrusion, especially in sensitive environments; (5) Evaluate natural boundaries in terms of supporting human intervention and conserving places with basic life support systems, based on the environmental services these places provide to the community.

Burbano et al. [28] state that sustainable development refers to the ideal balance between the benefits to the environment that come from low-impact tourism activities and the benefits to the community that come from supporting tourism initiatives that meet their needs and promote well-being. Effective community participation in decision-making, encouraging them to partner, and providing space to increase community capacity and tourism sustainability [29]. Involving local communities in tourism planning and development ensures that tourism benefits are distributed equitably and that cultural and environmental resources are preserved [30, 31]. Collaboration between governments, the private sector, and local communities is essential to implementing sustainable tourism practices effectively [32]. The success of sustainable tourism development depends on effective governance, which includes stakeholder collaboration, regulation, and conservation efforts [33].

2.2. Green Tourism

Green tourism is a keyword often associated with derivative forms of tourism such as ecotourism, sustainable tourism, or even rural tourism. Mousavi [34] stated that green tourism is an important part of the sustainability of the tourism business. Green tourism, also known as sustainable tourism or ecotourism, is increasingly recognized as a significant tool for promoting sustainable development, especially in developing countries. This form of tourism emphasizes environmentally friendly practices, natural resource conservation, and socio-economic benefits for local communities [35-37]. Ultimately, the promotion and implementation of green tourism serve not only as a response to environmental and socio-economic concerns but also as a strategic pathway for aligning tourism growth with the broader goals of sustainable development.

Green tourism can drive economic growth by attracting investment and creating jobs. Green tourism supports the local economy by promoting local products and services, which can increase income and improve the living standards of local communities [37]. Green tourism promotes the sustainable use of natural resources, helps preserve biodiversity, and protects ecosystems. Green tourism is vital for countries with rich natural resources, such as national parks and wildlife sanctuaries [36]. For the sustainability of green tourism, companies need to understand the environmental, social, and economic impacts of green tourism activities and consider these impacts during planning. A

community-based management approach is one of the most important dimensions of green tourism success. Community involvement in tourism planning ensures that social benefits are maximized and local values and traditions are respected [38]. Thus, green tourism emerges as a model for ecological preservation and a catalyst for inclusive economic empowerment, where sustainability, local participation, and cultural integrity become the pillars of resilient destination development.

Green tourists, as noted by Bergin-Seers and Mair [39], are environmentally aware and practice sustainability through recycling, energy conservation, and eco-friendly consumption. Their behavior is shaped by habits and facility availability [40]. Tourism businesses are encouraged to adopt sustainable practices and engage communities to meet green tourist expectations. In rural areas like Jatiluwih, green tourism offers both ecological preservation and economic benefits. However, increased tourism due to its UNESCO status risks environmental degradation and cultural commodification [41]. Unregulated development and farmland conversion threaten the Subak system's authenticity [42].

3. Methodology

This study employs a quantitative approach using exploratory factor analysis (EFA) to identify the latent dimensions of tourist perceptions of Jatiluwih as a green tourism destination. Data were collected through structured questionnaires distributed to 115 tourists, consisting of 85 international and 30 domestic visitors. The sample size was determined based on [43] guideline, using the minimum ratio of 5 respondents per item for 23 indicators measuring green tourism perception.

The questionnaire items were derived from validated instruments used in previous green tourism studies [44] and adapted to the context of Jatiluwih. The items included environmental responsibility, local economic vitality, cultural diversity, and experiential richness. Responses were measured using a five-point Likert scale. Data were analyzed using SPSS with the principal component analysis method, varimax rotation, Kaiser-Meyer-Olkin (KMO), and Bartlett's tests to assess sampling adequacy. Factors with eigenvalues greater than 1.0 were retained, and item loadings above 0.50 were considered significant.

4. Results And Discussion

The perception of international and domestic tourists towards the Jatiluwih area as a green tourism destination is shown in Table 1.

Table 1.
Perception of International and Domestic Tourists of the Jatiluwih Area as Community-Based Green Tourism.

Indicator	Average rating		Information
	International Tourists	Domestic Tourists	
Jatiluwih still maintains a green open space that is still beautiful (X1.1)	4.86	4.53	Strongly agree
Jatiluwih uses resource-wise resources such as raw materials, water, and energy (X1.2)	4.91	4.27	Strongly agree
Jatiluwih has environmentally friendly facilities (X1.3)	4.85	4.33	Strongly agree
Jatiluwih has clean air, land, and water quality (X1.4)	4.93	4.70	Strongly agree
Jatiluwih community protects and improves biodiversity (X1.5)	4.81	4.33	Strongly agree
Jatiluwih has effective waste management (X1.6)	4.81	4.37	Strongly agree
Jatiluwih has good road infrastructure (X1.7)	4.74	4.17	Strongly agree
Jatiluwih has an organic farming system (X1.8)	4.75	4.60	Strongly agree
Jatiluwih has smooth transportation (X1.9)	4.78	4.53	Strongly agree
Communities involved in tourism development in Jatiluwih (X2.1)	4.68	4.50	Strongly agree
Jatiluwih community becomes a provider of local food, beverages, and souvenirs (X2.2)	4.85	4.50	Strongly agree
The people of Jatiluwih get economic benefits and opportunities from tourism activities (X2.3)	4.74	4.40	Strongly agree
The people of Jatiluwih have accommodation (lodging and homestay) as economic support (X2.4)	4.76	4.33	Strongly agree
Jatiluwih has cultural diversity, such as traditional dances and local traditions (X3.1)	4.56	4.37	Strongly agree
Jatiluwih has historical heritage attractions that are still preserved (X3.2)	4.72	4.47	Strongly agree
Jatiluwih has an interesting and unique cultural attraction (subak) (X3.3)	4.72	4.50	Strongly agree
The architecture of the buildings in Jatiluwih still retains the Balinese architecture (X3.4)	4.79	4.47	Strongly agree
Tourists are involved in tourism event activities held in Jatiluwih (X4.1)	4.51	4.20	Strongly agree
Tourists buy food and drinks sold by the local community (X4.2)	4.80	4.37	Strongly agree
Tourists are involved in local community cultural and traditional activities (X4.3)	4.64	4.17	Strongly agree
Tourism products in Jatiluwih provide a memorable experience for tourists (X4.4)	4.86	4.30	Strongly agree
Tourists participate in experiencing the life of the local community of Jatiluwih (X4.5)	4.71	4.13	Strongly agree
Tourist activities reduce emissions (Trekking, cycling) (X4.6)	4.82	4.33	Strongly agree

Based on Table 1, overall, the perception of international and domestic tourists strongly agrees that the Jatiluwih area becomes a Green Tourism Destination by implementing the four variables: environmental responsibility, local economic vitality, cultural sensitivity, and experiential richness. According to the perception of international and domestic tourists, the highest value is found in the X1.4 indicator, namely, the Jatiluwih area has clean air, land, and water quality.

Tourists prefer tourist destinations that provide a clean and healthy natural experience. Clean air quality, good water, and soil management contribute significantly to their satisfaction and positive experience. Clean air quality plays an important role in green tourism. Water quality is essential, especially for tourist activities such as swimming, snorkeling, or enjoying the natural scenery. Tourists increasingly prioritize water cleanliness in the destinations they choose. Hassan [45] found that destinations that maintain their water quality often receive a positive perception from tourists, contributing to their satisfaction. Clean and healthy water is essential in green tourism.

Table 2.

Results of the KMO and Bartlett's Test for International Tourists and Domestic Tourists.

KMO and Bartlett's Test		International Tourists	Domestic Tourists
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.776	0.779
Bartlett's Test of Sphericity	Approx. Chi-Square	991.232	298.043
	df	253	78
	Sig.	0.000	0.000

It is known that the KMO MSA of this variable is $0.776 > 0.50$ for international tourists and $0.779 > 0.50$ for domestic tourists; this indicates that the factor analysis can be continued.

Table 3.

Rotated Component Matrix Test Results For International Tourists.

Indicator	Component					
	1	2	3	4	5	6
X1.1	0.787					
X1.2						
X1.3	0.786					
X1.4						
X1.5	0.740					
X1.6						
X1.7	0.668					
X1.8						
X1.9	0.638					
X2.1						0.676
X2.2						0.835
X2.3						
X2.4				0.632		
X3.1		0.849				
X3.2		0.791				
X3.3				-0.712		
X3.4						
X4.1		0.764				
X4.2			0.811			
X4.3		0.663				
X4.4			0.702			
X4.5					0.602	
X4.6					0.703	

Note: Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalisation. a

a. Rotation converged in 9 iterations.

Because the sample of international tourists is 85, the loading factor value used is 0.60, so the new factors formed are:

Indicators X1.1, X1.3, X1.5, X1.7, and X1.9, which relate to environmental aspects, form a single factor labeled Sustainability of Environmental and Infrastructure due to their strong loading values (>0.60). This factor highlights the importance of preserving ecosystem quality alongside developing supporting infrastructure in green tourism areas like Jatiluwih. Aligning with Weaver et al. [46] and Zengeni and Nyasha Muzvidziwa [47], infrastructure development must prioritize ecological balance, as excessive construction risks damaging Jatiluwih's traditional Subak system, the core of its tourism appeal.

The importance of integrating green infrastructure and a *low-impact tourism approach*. For example, pedestrian paths made of natural materials, a decentralized waste management system, and public facilities based on renewable energy [48]. Green infrastructure aligns with the Sustainable Development Goals (SDGs), particularly Goals 11 (sustainable cities and communities) and 13 (climate

action). Incorporating sustainability principles into infrastructure planning and management will enhance destinations' adaptive capacity to various pressures, including increasing tourist numbers, climate change, and tourism crises. A study by Holladay [49] shows that destinations that proactively manage environmental and infrastructure sustainability tend to have higher resilience and can maintain the quality of the travel experience in the long term.

Indicators X3.1, X3.2, X4.1, and X4.3, with loading factor values greater than 0.60, form a new factor identified as Understanding through Cultural Immersion. This factor reflects the extent to which tourists connect with local culture through direct engagement, such as participating in cultural events, enjoying traditional performances, and purchasing local products. These activities enrich the tourist experience while supporting cultural preservation and economic sustainability in Jatiluwih.

Jatiluwih is being developed as a cultural heritage living museum, offering tourists immersive experiences in local traditions through direct participation in ceremonies, farming, and daily life. This community-based green tourism approach not only enriches cultural understanding but also supports heritage preservation and improves local livelihoods through authentic interactions and homestay programs. The *experiential* and *transformative tourism* approaches, where tourists gain meaningful personal experiences through direct engagement with the local culture [50, 51]. The active participation of tourists in cultural activities has also been shown to strengthen respect for local traditions and deepen cross-cultural understanding. A study by Campos et al. [52] confirm that tourists' involvement in local practices can create an emotional connection between tourists and destinations, ultimately reinforcing loyalty and positive attitudes towards cultural conservation. Beyond cultural consumption, this factor also shows that destinations like Jatiluwih can build a *co-creation experience model* where tourists and the community value each other in the interaction process [53]. This model shifts the role of tourists from passive spectators to active participants who help maintain local cultural values.

Indicators X4.2 and X4.4, with loading factors > 0.60, form a new factor called Nature-Based Inclusive Travel Experience. This factor reflects how tourists in Jatiluwih gain authentic and meaningful experiences by engaging with nature and local communities. Activities such as farming tours, rituals, and homestays connect visitors with cultural and spiritual values. According to Agapito et al. [54] and Kim and Fesenmaier [55], such immersive experiences foster emotional, educational, and sustainable tourism outcomes.

Furthermore, this factor also reflects the level of economic involvement of the Jatiluwih community in tourism management. Most tourist services, including guided services, sales of agricultural products, local culinary, and accommodation, are managed directly by the residents. The community-based tourism (CBT) principle makes local communities the leading actors and economic beneficiaries of tourism activities [56]. Within the world heritage site management framework, this participatory approach is important to maintain sustainability in environmental preservation and community welfare [57]. Nature-based inclusive tourism experiences are not only the primary cornerstone in interpreting tourists' perceptions of the quality of their visits to Jatiluwih but also reflect the success of community-based management models that are adaptive, empowered, and resilient to external pressures, including the global tourism crisis [58, 59].

Indicators X3.3 and X2.4 have a loading factor value > 0.60 and are grouped into one specific factor, becoming a new factor in Component 4; it shows that the two indicators form one new factor, namely Rich Local Cultural and Economic Experience. This factor explains that Jatiluwih combines cultural uniqueness, such as the attractive traditional attractions of Subak, with the support of local economic infrastructure, especially in the form of accommodations such as inns and homestays managed by the local community. Tourists enjoy an immersive cultural experience and participate in the local economy by staying in places managed by the community, which supports the area's sustainability and economic well-being.

The tourist's cultural experience involves passive observation of traditions and landscapes and active involvement in local practices such as farming, following traditional rituals, and purchasing local

products such as handicrafts and organic agricultural products. A study by Khalid et al. [60] confirms that cultural experiences packaged through participatory activities can increase the direct economic impact on local communities while strengthening cultural identity as an economic asset. The connection between the local economy and the cultural experience of tourists is also strengthened by the concept of *an embedded tourism economy*, where the interaction between tourists and the community results in a profound exchange of value both financially and symbolically [61]. Thus, tourists are not only consumers but also agents of economic empowerment of the community. The participation of local actors in creating culture-based tourism products such as educational tours, art demonstrations, traditional culinary, and agro-tourism has been proven to increase income and diversify the village economy [62]. A study by Rasoolimanesh et al. [63] shows that destinations with a strong local economic base and high cultural engagement tend to better maintain social and environmental sustainability in the long term.

Indicators X4.5 and X4.6 have a loading factor value of > 0.60 and are grouped into one specific factor, becoming a new factor in Component 5; this shows that the two indicators form one new factor, namely Ecotourism Engagement. This factor reflects tourists in Jatiluwih participating in ecotourism activities such as trekking and cycling that are environmentally friendly, as well as experiencing the life of the local community. These activities support the reduction of carbon emissions and provide an immersive cultural experience while preserving nature. This factor also reflects the orientation of destinations towards a *low-impact tourism model* that supports the long-term sustainability of local ecosystems and cultures.

The importance of active involvement of tourists in educational and conservation activities is a key element in distinguishing ecotourism from other forms of tourism [64]. Ecotourism has been proven to strengthen local communities' capacity through training, green entrepreneurship, and community-based resource management. According to Giampiccoli and Glassom [65], destinations that develop a participatory ecotourism approach tend to be more socially and ecologically resilient. In the context of Jatiluwih, initiatives such as the management of trekking trails, the conservation of rice paddies, and the use of natural building materials for tourist facilities are tangible forms of community involvement in maintaining the ecological values of the destination.

Indicators X2.1 and X2.2 have a loading factor value of > 0.60 and are grouped into one specific factor in Component 6; this shows that the two indicators form a new factor, which is Involvement of Local Community. Community participation is socially and culturally important and strategic in maintaining ecological integrity and local values. Local communities play an important role in organizing tourism activities through customary village institutions, tourism awareness groups (Pokdarwis), and local cooperatives that manage tourists' contributions to preserving rice fields and traditional irrigation systems. Studies by Giampiccoli et al. [66] emphasise that meaningful forms of participation involve communities in *co-creating* tourism products and equitable distribution of economic benefits. Not only as technical implementers, but local communities should ideally be the leading actors who have control over strategic decisions in destination development. Rasoolimanesh et al. [67] show that high levels of community participation directly contribute to increased support for sustainable tourism and improved quality of life. Phori et al. [68] also show that communities that feel valued in the tourism development process tend to be more supportive of the program's sustainability and maintain the quality of the tourist experience.

Table 4.
Rotated Component Matrix Test Results for Domestic Travelers.

Rotated Component Matrix		
Indicator	Component	
	1	2
X1.3	0.739	0.484
X1.5	0.931	0.055
X1.7	0.611	0.195
X1.8	0.743	0.226
X1.9	0.739	0.473
X2.1	0.741	0.272
X2.2	0.735	0.224
X2.4	0.599	0.535
X3.2	0.205	0.872
X3.3	0.574	0.454
X3.4	0.693	0.365
X4.3	0.166	0.832
X4.6	0.301	0.677

Note: Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalisation.

a. Rotation converged in 3 iterations.

Formation of New Factors of Domestic Tourists:

Indicators X1.3, X1.5, X1.7, X1.8, and X1.9 have a loading factor value of > 0.60 and are grouped into one specific factor in Component 1; this demonstrates that these five indicators form a new factor called Sustainability of Environmental and Infrastructure. This factor encompasses elements related to sustainable environmental management and maintenance, as well as environmentally friendly infrastructure support in Jatiluwih. Indicators such as environmentally friendly facilities, organic farming systems, biodiversity protection, quality of road infrastructure, and smooth transportation highlight Jatiluwih's commitment to ecological sustainability. Through organic farming systems and biodiversity management, Jatiluwih maintains nature conservation and fosters an environment conducive to sustainable and environmentally friendly ecotourism.

Indicators X3.2, X4.3, and X4.6 have a loading factor value of > 0.60 and are grouped into one specific factor, becoming a new factor in Component 2; this shows that the three indicators form a new factor called Cultural Ecotourism. Preserving cultural heritage is essential to maintain local communities' unique identity and pride, supporting economic development through tourism [69, 70]. In the context of Jatiluwih as a UNESCO World Heritage site, domestic tourists greatly appreciate the subak system, agricultural rituals, and traditional Balinese architecture that collectively reflect the harmony between humans and nature.

According to research by Stronza and Gordillo [71] the participation of tourists in cultural and environmental activities can increase awareness and appreciation of local culture and encourage environmentally friendly behaviors. In addition, research by Emiroglu [72] shows that the involvement of tourists in ecotourism can increase support for environmental and cultural conservation. Tourists' involvement in cultural activities further reinforces this satisfaction, suggesting that deeper engagement with cultural elements leads to a more positive experience [73]. The perceived value of a destination, influenced by its cultural and ecological offerings, plays an important role in shaping destination loyalty. Travelers who value their experience are more likely to develop a positive reputation for the destination and demonstrate loyalty [74]. Tourists' environmental awareness and understanding of ecotourism significantly influence their perceptions and behavior. A higher level of awareness leads to more responsible behavior and a greater appreciation of cultural and natural aspects [72, 75].

Integrating cultural elements into the ecotourism experience can increase tourists' environmental responsibility, as emotional and cognitive connections with culture and the environment foster long-term protective behaviors [76]. Tourists' cultural tendencies or desire to learn and engage with the

local culture significantly improve their overall experience and satisfaction. This engagement is critical to creating a meaningful and memorable tourism experience [77]. Tourists' perceptions of the negative impacts of tourism can influence their sense of responsibility and subsequent behavior. Raising tourists' awareness of these impacts and providing accessible information can foster a sense of responsibility and promote more sustainable tourism practices [78].

The exploration of factors in this study identified seven main dimensions representing tourists' perceptions of Jatiluwih as a green tourism destination. These dimensions are summarized into a conceptual model called SERUNI, an acronym reflecting the key elements in developing community-based sustainable tourism. The SERUNI model is an abbreviation for the essential components of green tourism development and symbolizes local values. This model aligns with Jatiluwih's development as a sustainable destination that preserves heritage and provides transformational experiences for tourists through active community involvement.

5. Conclusion

This study has confirmed that international and domestic tourists perceive Jatiluwih positively as a green tourism destination. Through Exploratory Factor Analysis (EFA), six core factors emerged from international tourists' perceptions: (1) Sustainability of Environmental and Infrastructure; (2) Understanding through Culture Immersion; (3) Nature-Based Inclusive Tourism Experiences; (4) Rich Local Cultural and Economic Experience; (5) Ecotourism Engagement; and (6) Involvement of Local Community. For domestic tourists, two factors were identified: Environmental Sustainability and Infrastructure and Cultural Ecotourism. These seven dimensions were synthesized into a comprehensive conceptual framework called the SERUNI Model. This conceptual model strengthens the idea that Jatiluwih's green tourism must integrate local values, active community roles, and sustainable practices to build a transformative and resilient world heritage destination aligned with the Sustainable Development Goals. The SERUNI model provides a practical roadmap for UNESCO destinations to integrate environmental, economic, cultural, and social sustainability in one integrated framework.

Institutional Review Board Statement:

The study was conducted in accordance with the Declaration of Ethical Clearance and approved by the Institutional Review Board of Bali Tourism Polytechnic (Protocol code KB/21/PS.02.01/PTP.2/2025, date of approval: 06/10/2025).

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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