Role of Local Tourism Governance Policies in Achieving Sustainable Tourism Development: A PLS-SEM Modeling Study

Tjitjik Rahaju, Suci Megawati*, Indah Prabawati, Firre An Suprapto, Ajie Hanif Muzaqi, Ardiyansyah

Department Public Administration, Faculty of Social Sciences and Political Sciences, Universitas Negeri Surabaya, Surabaya, Indonesia. *Email: sucimegawati@unesa.ac.id

ABSTRACT

Tourism development has increasingly become central to sustainable economic strategies, particularly in culturally and environmentally rich nations such as Indonesia. Despite the sector's contribution to GDP and employment, challenges in balancing environmental preservation, cultural integrity, and infrastructure development persist. This study aims to investigate the role of local tourism governance policies—specifically nature, cultural activity, recreation, and infrastructure development policies—in fostering sustainable tourism. Utilizing a quantitative approach, data were collected from 200 local government staff responsible for tourism in Indonesia. Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to assess the structural relationships between policy types, community participation, and sustainable tourism development. The findings confirm significant positive effects of all four policy domains on sustainable tourism. Moreover, community participation significantly moderates the effectiveness of cultural and recreational policies but not nature or infrastructure policies. The study contributes theoretically by integrating governance frameworks with sustainability discourse, emphasizing the differentiated roles of policy types and community involvement. Practically, the findings highlight the need for policymakers to integrate inclusive participation mechanisms—especially in technical policy areas—to ensure comprehensive tourism sustainability. The results provide actionable insights for designing context-sensitive, community-empowered tourism strategies in developing nations.

Keywords: Community Participation, Creative Economy, Local Policy, Sustainable Tourism
JEL Classifications: H72, L83, Q01, R58, Z32

1. INTRODUCTION

Tourism and the creative economy are two interrelated sectors that significantly impact a country's economic growth. Tourism is an essential source of income and a catalyst for developing the creative economy (Putri et al., 2021). Tourism and the creative economy must be maximized to ensure sustainable growth that considers the community's interests. In this era of globalization, tourism has become one of the leading sectors of the global economy. The World Tourism Organization (UNWTO) recorded a 63% increase in international tourists in Q1 2023 compared to the same period in 2022 (World Tourism Organization, 2023). In 2022, the total contribution of travel and tourism to global GDP was 7.7 trillion US dollars, reflecting a slight decrease from

10 trillion US dollars in 2019 but still a substantial figure. For 2023, forecasts point to a significant recovery, with the total contribution of travel and tourism to global GDP projected to reach 9.5 trillion US dollars. This is a substantial increase from 2022 and is expected to continue growing towards $15.5 trillion by 2033. The rapid recovery of the tourism sector is attributed to the return of 95% of pre-pandemic tourist numbers by the end of 2023, in the best-case scenario (World Tourism Organization, 2024).

Sustainable tourism aims for long-term positive impacts on environmental, social, cultural, and economic aspects for both present and future generations (Rasoolimanesh et al., 2023; Streimikiene et al., 2021). Tourism is a powerful tool for global sustainability, contributing to economic growth, job creation, and

poverty reduction (Pan et al., 2018). To ensure current comfort without compromising future resources, sustainable solutions are crucial. UNWTO (2018) emphasizes tourism's role in achieving all sustainable development goals. Despite extensive research, concerns about tourism sustainability and its barriers are increasing. Implementing sustainable practices is key to addressing environmental issues and achieving SDGs, as seen in enduring sustainable tourism destinations (Megawati et al., 2023). However, scientific literature and policy documents highlight a lack of focus on environmental management and governance processes, which are vital for balancing the needs of visitors, the tourism industry, and local communities.

Tourism policy is essential in sustainable tourism, as it creates a framework that directs sustainable tourism development and positively impacts all stakeholders, including the government, the tourism industry, local communities, and the environment (Firman et al., 2023). Policy measures include the development of environmentally friendly infrastructure, sustainable destination management, promotion of responsible tourism, and education and training to raise awareness about the importance of environmental and cultural preservation (Schönherr et al., 2023). Several related studies have supported engaging and directing sustainable tourism policies (Khan et al., 2020; Panasiuk, 2020; Zhao et al., 2023). Various studies have consolidated the relationship between life continuity, reliability, resilience, and management system performance (Dias et al., 2023; Ghosh and Batabyal, 2022; Khan et al., 2021). In particular, Cao (2015) found spatial planning of tourism areas, revitalizing degraded tourist areas, strengthening tourism regulations through laws, and diversifying tourism destinations (Cao, 2015). Meanwhile, Trung and Prabhakaran (2023) highlighted the decentralization of sustainable tourism policies with natural resources and local culture (Trung and Prabhakaran, 2023). Other empirical studies highlight the impact of government policies on achieving sustainable tourism through various policy variables, including tourism policy stakeholders (Megawati et al., 2024; Rustini et al., 2023), Community participation (Stumpf and Swanger, 2015), management of the physical and natural environment (Rizal et al., 2021), Quality of Sustainable Tourism Infrastructure Services (Moniche and Gallego, 2023), renewable energy (Calderón-Vargas et al., 2021), Eco-friendly transportation and circular economy (Brendehaug et al., 2017).

From the literature above, there are still some gaps in the study of sustainable tourism management policies. First, the study history is mostly fragmented on only one particular policy object that cannot be generalized in macro tourism policy evaluation. Second, existing studies ignore public support for the success of tourism policies. Third, empirical studies of sustainable tourism development are still scarce in Southeast Asia, especially Indonesia, the center of world multitourism (Nature, Culture and History). Fourth, existing studies involve more people as tourism connoisseurs than Ministry staff or state tourism management agencies with all strategic authority. Thus, three research questions arise from the literature gap:

RQ1. What are the groupings of sustainable tourism policies?
RQ2. How does the sustainable tourism policy group impact sustainable tourism development?

RQ3. How does community participation affect the effectiveness of tourism policy groups on sustainable tourism development?

So, this study aims to analyze sustainable tourism policy groups and their effects on sustainable tourism development. In addition, this study aims to evaluate the role of communities in the effectiveness of policy groups in sustainable tourism development. This study builds on the theoretical contribution of understanding the complex dynamics of sustainable tourism policy in the form of groupings and the importance of community participation in achieving sustainable development goals. Methodologically, this empirical study is the first to use the Partial Least Square – Structural Equation Modeling (PLS-SEM) analysis technique in tourism policy studies. The involvement of the District/City Tourism Office staff in Indonesia is a fundamental update that knows more about the management of each regional tourism according to local wisdom.

2. LITERATURE REVIEW

2.1. Sustainable Tourism
Sustainable tourism carefully considers environmental, social, and economic impacts while meeting the needs of visitors, industry, the environment, and host communities (Srisawat et al., 2023; Guo et al., 2019). This approach emphasizes responsible travel, including eco-friendly transport, ethical consumption, and nature conservation (Dinica, 2006). Environmental conservation is central to sustainable tourism, aiming to reduce pollution, protect ecosystems, and promote renewable energy and waste management (Farsari et al., 2010). Additionally, it supports local economic development by promoting local products, involving communities in tourism management, and fostering inclusive growth (Rustini et al., 2023). Social empowerment is also vital, enhancing community participation, supporting indigenous groups, and preserving local culture (Shakeela et al., 2012). Sustainable tourism aligns with the Sustainable Development Goals (SDGs), particularly SDG 8 on decent work and economic growth and SDG 12 on responsible consumption (Peña-Sánchez et al., 2020). By integrating these principles, sustainable tourism contributes to the 2030 agenda, creating a balanced approach that benefits tourists, the environment, and local communities. Through this framework, tourism becomes a tool for long-term global development, ensuring a positive legacy for future generations (Connelly and Sam, 2018).

2.2. Local Tourism Policy
The study of tourism policy is vital for guiding tourism development and management (Yüksel et al., 2012). Effective policies focus on sustainability, local community empowerment, and economic growth (Castellani and Sala, 2010). Key areas include destination promotion, infrastructure, regulation, and human resource development (Moniche and Gallego, 2023). Sustainable tourism policies should balance environmental, cultural, and economic goals, requiring collaboration between governments, private sectors, and civil society (Luštický et al., 2017). Policies must adapt to trends like climate change and evolving traveler preferences (Xu and Sofield, 2016). Stakeholder input from industry, academia, and the public is crucial (Jänis, 2012), alongside continuous evaluation of policy impacts.

Sustainable tourism management emphasizes sustainability and competitiveness (Kitheka and Backman, 2016). The socio-political environment plays a role in raising sustainability awareness and governance (Mellon and Bramwell, 2016). Policy instruments cover environmental, economic, socio-cultural, and planning aspects (Kim and Hyun, 2021). Effective implementation includes fiscal policies, resource management, and ecological protection (Muangasame and McKercher, 2015). Dodds (2007) highlights five key instruments: environmental, economic, voluntary, socio-cultural, and planning. Examples include ecological taxes and social programs aimed at sustainable tourism outcomes (Dodds, 2007).

2.3. Hypothesis Development

Nature policy comprises rules aimed at preserving the environment, including biodiversity protection, national park management, and regulating resource exploitation (Dammers et al., 2011). The IUCN defines it as actions by governments, NGOs, and the private sector to safeguard biodiversity and ensure sustainable resource use (Mattijssen et al., 2020). Sovacool et al. (2020) describe nature policy as decisions guiding human interactions with nature (Sovacool et al., 2020). It's often integrated within broader environmental policies and public policies covering societal and environmental aspects. Research emphasizes integrating nature policies with sustainable development through cross-sector collaboration (Bloise et al., 2024). Effective conservation area management significantly impacts biodiversity (Strange et al., 2022). Moreover, nature policy plays a crucial role in climate change mitigation by conserving habitats that store carbon and adapting strategies to protect climate-vulnerable species (Sala et al., 2021).

In the tourism sector, nature policy plays a vital role because it often depends heavily on nature preservation to attract tourists and maintain its attractiveness (Nikolaeva et al., 2018). One important aspect of nature policy in the tourism sector is the preservation of biodiversity (Stone et al., 2021). Tourism destinations often have unique ecosystems and natural beauty that appeal to tourists. Effective nature policies help protect natural habitats from damage caused by excessive human activities (Plummer et al., 2006), such as uncontrolled tourism infrastructure development or overfishing in sensitive waters. In addition, the management of national parks and other conservation areas is also an essential part of nature policy in the tourism sector (Spenceley, 2008). National parks and conservation areas are often the main attraction for tourists who want to explore the wild and experience undisturbed natural beauty. Effective policies in national park management ensure that visitors can responsibly enjoy nature and minimize their negative environmental impact. In addition to preserving nature, nature policy can directly impact the tourist experience (Shafer and Choi, 2006). Restrictions on the exploitation of natural resources, such as restrictions on fishing or the number of visitors, can help maintain the authenticity and integrity of the environment, thus enhancing the tourist experience (Upadhya, 2016). Wall-Reinius et al. (2023), in the Swedish tourism planning study, show the role of policies supporting access to natural tourism for disability as one of the SDGs achievements to encourage social, economic, and political inclusion for everyone (Wall-Reinius et al., 2023). Meanwhile,

Lee et al. (2021), in the sustainable tourism assessment study of Taiwan's ecological resort region, showed nature policy indicators as supporting indicators (Lee et al., 2021).

This study assumes the importance of nature policy in creating sustainable tourism in Indonesia. With the above study, this study proposes the first hypothesis:

H_1. Nature policy has a significant positive influence on Indonesia's sustainable tourism development

Cultural Activity Policy is a policy approach that regulates and promotes cultural activities in a society (Psychogiopoulou, 2017). A literature review of the policy highlights aspects ranging from its role in preserving cultural heritage to fostering social and economic inclusion. A critical element of the Cultural Activity Policy is preserving cultural heritage (Luonila and Ruokolainen, 2024). These policies are often designed to protect, preserve, and document a community's unique cultural heritage. This includes supporting traditional cultural practices, performing arts, and architectural and environmental heritage (Ho, 2017). In addition to preservation, the Cultural Activity Policy also promotes social inclusion (Jin and Otmazgin, 2014). By supporting diverse forms of cultural expression, these policies can create space for minority or marginalized groups to participate in cultural activities (Stevenson, 2013). This can reduce social inequality and increase a sense of ownership over cultural identity. Furthermore, this policy also has a significant economic impact. By strengthening creative industries, such as fine arts, music, and cultural celebrations, Cultural Activity Policy can create new jobs and boost local economic growth (Megawati and Mahdiannur, 2021; Pulido-Fernández et al., 2016). This involves support in subsidies, tax incentives, and funding of cultural projects.

From the overall review, the Cultural Activities Policy plays an important role in preserving cultural heritage, promoting social inclusion, and encouraging economic growth. This study builds the assumption that cultural activity policy plays a positive role in sustainable tourism development. With the above study, this study proposes the first hypothesis:

H_2. Cultural activity policy has a significant positive influence on Indonesia's sustainable tourism development

Recreation Policy regulates the use of recreational facilities and programs to ensure safe, equitable, and sustainable access for all (Powers et al., 2021). These policies aim to enhance community welfare and promote physical and mental well-being through recreational activities that reduce stress, improve health, and strengthen social bonds (Dudley et al., 2017). The policy also emphasizes accessible recreational facilities for both rural and urban communities. Additionally, recreation policy supports local economic growth by promoting tourism and the leisure industry, creating jobs, and increasing regional income (Zachariou and Burgess, 2023). However, environmental sustainability is crucial to avoid harming ecosystems and local cultures (Bandeira et al., 2023).

Some literature emphasizes the need to pay attention to environmental, social, and economic aspects in the development of recreational activities so as not to harm the environment

and local communities (Olstad et al., 2019). This sustainable approach includes wise management of natural resources, local culture preservation, and local communities' economic empowerment (Hansen et al., 2023). In addition, the literature review also reviews the role of technology in improving the recreational experience of tourists (Seifer, 2021). The application of technologies such as tour guide apps, online booking platforms, and smart sensors can help facilitate leisure activities more efficiently and improve tourist satisfaction. No less critical, recreation policy in tourism must also pay attention to security and safety aspects (Dennis, 2019). Caswell et al. (2021), in detail, highlight the importance of the active involvement of all stakeholders in formulating tourism recreation policies (Caswell et al., 2021). Involving local communities, tourism industry players, academics, and local governments in decision-making can improve policy effectiveness and ensure the sustainability of tourism destination management.

From the study above, recreational policies are likely to encourage the achievement of sustainable tourism in Indonesia. Thus, the next hypothesis is proposed:

H_3. Recreation policy has a significant positive influence on Indonesia's sustainable tourism development

Infrastructure Development Policy in tourism is a regulation made to regulate the development and management of infrastructure that supports tourism activities (Balletto et al., 2020). Infrastructure development policy in tourism is an essential strategy for a country's government to increase the attractiveness and accessibility of tourist destinations. Good infrastructure not only facilitates tourists' travel but also creates a comfortable and safe environment for them (Bratyuk, 2013). Infrastructure development policy in tourism has become a significant focus for many countries in improving the competitiveness and economic growth of the tourism sector (Anctil and Blanc, 2016).

One aspect emphasized in infrastructure development policy is the relationship between infrastructure and increased accessibility (Luo et al., 2019). Good transportation infrastructure, such as airports, highways, and public transportation facilities, can expand the reach of tourism destinations, increase the number of tourists who come, and extend economic benefits to a broader area. Ababkova and Vasileva (2020) specifically found that infrastructure development positively impacts tourist arrivals, particularly from India and abroad, and sustainable tourism requires government intervention and private sector incentives (Ababkova and Vasileva, 2020). In addition, the importance of accommodation infrastructure in tourism development. Hotels, resorts, homestays, and other accommodation facilities provide tourists shelter, create local jobs, and increase regional revenues (Hariguna et al., 2021). The existence of technology is also essential in advancing tourism (Andrades and Dimanche, 2017). Tourism sector development policies should focus on innovative infrastructure, activities, and technologies to create sustainable and profitable industries and improve economic, social, and environmental conditions. Thus, this study wants to test the assumption of the importance of infrastructure development policy in sustainable tourism development in Indonesia.

H_4. Infrastructure development policy has a significant positive influence on Indonesia's sustainable tourism development

Successful tourism development involves collaboration with local communities, emphasizing "Building with the community" to ensure they benefit from the process. Community participation is key to empowering locals to address needs or problems through jointly planned programs (Ibrahim et al., 2018). In Indonesia, involving communities in tourism village development is crucial. Participation is effective in transforming small communities and reaching broader populations (Mak et al., 2017). It also fosters cooperation between governments and citizens (Eyisi et al., 2021). In places like Western countries and China, public participation helps resolve stakeholder conflicts, complementing traditional decision-making (Xu et al., 2019). Participation reflects democratic aspirations, emphasizing decentralized, bottom-up planning (Qin et al., 2024). Moreover, it enhances knowledge and tolerance through coordinated community efforts in resource management (Reindrawati, 2023). Overall, community involvement strengthens social bonds and contributes to sustainable tourism development.

In the context of tourism, several related literature highlight the active role of communities in developing, marketing, and preserving tourist destinations. Related research has also highlighted various forms of participation, including participation in decision-making, destination management, and local tourism promotion (Rasoolimanesh et al., 2017; Ye et al., 2023). Factors such as community involvement, motivation, and interest affect their level of participation. Strong community participation can enhance sustainable development, strengthen social ties, and reduce the negative impact of tourism. However, challenges such as conflicts of interest, lack of capacity, and lack of opportunities for all parties to participate must be overcome (Witchayakawin et al., 2022). Integrating people's needs and aspirations in tourism planning is also emphasized. Thus, this study considers it essential to examine the mediating role of community participation in achieving sustainable and inclusive destination management.

H_5. Community Participation Mediating the Relationship between natural policy and Sustainable tourism development

H_6. Community participation mediates the relationship between cultural activity policy and sustainable tourism development

H_7. Community participation mediates the relationship between recreation policy and sustainable tourism development

H_8. Community participation mediates the relationship between infrastructure development policy and sustainable tourism development

3. METHODOLOGY

This study chooses a quantitative approach to test the proposed hypothesis and answer the research questions posed. This study has reviewed the hypothesis based on a literature review and produced a proposed research model in Figure 1. This study selected the analysis unit of Indonesian District/City Civil Servant Staff assigned to the Tourism Office as part of the tourism management regulator. Indonesia's tourism sector significantly contributes to foreign exchange, driven by abundant local resources (Irewati and Nufus, 2024). These resources include diverse geography, culture,

Figure 1: Research model proposal
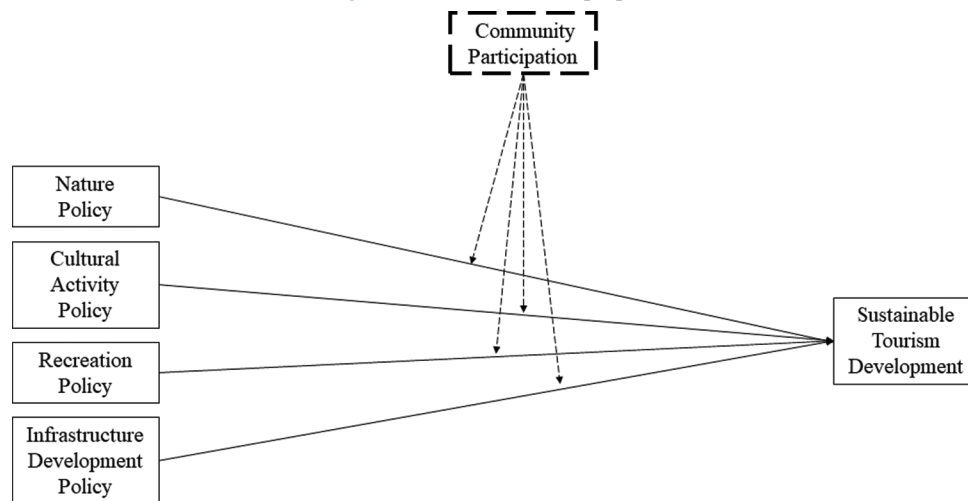
cuisine, and natural wealth, attracting domestic and international tourists. The country offers exotic destinations with stunning natural, cultural, and historical attractions (Fitriyah and Nurhaeni, 2021). As of 2022, Indonesia has 17,001 islands spread across 34 provinces, with West Papua, Riau Islands, and Central Sulawesi having the most islands. The Travel and Tourism sector's revenue is projected to reach US$854.8 billion by 2023, growing at 4.41% annually (Ha and Wong, 2023).

Primary data sources were obtained through a hybrid survey with questionnaire media developed based on previous scientific literature. Research instruments with adapted items consist of 6 nature policy items (Kularatne et al., 2021; Șeremet et al., 2023), cultural activity policy total of 5 items (Schroeder, 2015; Vasile and Bănică, 2019), recreation policy total of 5 items (Llewellyn and Rich, 2023; Powers et al., 2021), infrastructure development policy total of 5 items (Kanwal et al., 2020; Petrova et al., 2018; Zhang and Zhang, 2022), community participation A total of 5 items (Kurniawan et al., 2022; Stone and Stone, 2011; Witchayakawin et al., 2022) and sustainable tourism development A total of 6 items (Mellon and Bramwell, 2016b; Torres-Delgado and López Palomeque, 2012; Viana-Lora et al., 2023). In respondents' assessment of the "Likert scale," with a range of five points, from "strongly disagree" to "strongly agree," they evaluated their opinions on regional tourism policies in encouraging the development of Indonesia's sustainable tourism areas.

The process of collecting data from the Local Government Tourism Office Staff population who are given authority in tourism management following the principle of decentralization in Indonesian democracy. Consider their selection based on equitable distribution of responsiveness representing regions in avoiding research bias. This study chose purposive sampling techniques with the criteria that respondents are staff with a minimum service period of 5 years, positioned in the minimum functional position of regional tourism extension workers, and given the authority to consider regional tourism strategic policies. The minimum sample was determined by G*Power test version 3.0.10 with a statistical test pattern "linear multiple regression: Fixed model, R2 deviation from zero" with an effect size of 0.15 medium, alpha

Table 1: Characteristics of respondents

Characteristic	Total	Percentage
Gender		
Man	66	33
Woman	134	67
Age		
18-30 Years	107	53
31-45 Years	48	24
46-59 Years	45	23
Education		
Primary or Below	12	6
Higher Secondary	81	40
Graduates	59	30
Postgraduate	48	24
Marital status		
Married	114	47
Unmarried	86	43
Service period		
5 Years	39	37
5-10 Years	148	34
More than 10 Years	13	28

error probability of 0.05, power of 0.8, and 1 dependent variable with a minimum sample result of 55 respondents with output in Figure 2.

The data collection process will be carried out for three months, from December 2023 to February 2024. Data collection through Google Form Tools to facilitate database and data analysis preparation. The data dissemination process is carried out hybrid, using an Instagram-Facebook social media base and in-person field visits. This study obtained 200 respondents from the District/City Tourism Office in Indonesia with a tabulation of respondents in Table 1.

This study chose the partial least square-structural equation modeling (PLS-SEM) analysis technique with SmartPLS software version 3. The advantage of PLS-SEM lies in its flexibility and ability to handle complex datasets with relatively small sample numbers (Becker et al., 2023). PLS-SEM does not have specific data distribution assumptions, so it is suitable for non-normal data or data that does not meet parametric assumptions (Sarstedt

Figure 2: Output G*Power minimum sample
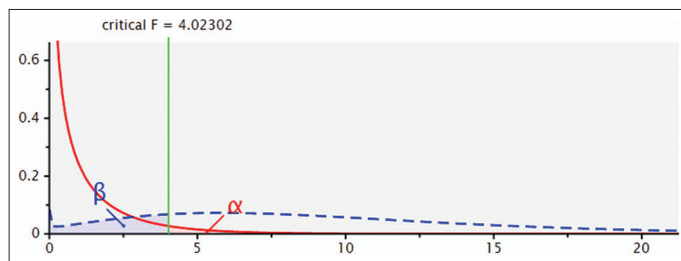
et al., 2022). PLS-SEM also allows using complex latent variables and combined measurements in models, thus addressing multicollinearity and non-linearity problems well (Memon et al., 2021). Its flexibility will enable researchers to perform predictive and confirmatory analysis within a single framework, which is beneficial in theory testing and model development. Thus, PLS-SEM offers a robust and reliable approach to complex data analysis and empirical research.

4. RESULTS

4.1. Reliability and Validity of Constructs
Based on the research objectives, we apply PLS analysis tools to evaluate the proposed structural model. The use of the PLS Algorithms Test is carried out to explore the suitability of the developed model, and the results show an acceptable degree of suitability of the model, indicating its suitability for further analysis (Becker et al., 2023). Each step in the study has been rigorously examined to ensure its reliability and validity in accurately representing variables.

As seen in Table 2, all elements indicate a loading factor exceeding the recommended value of 0.7, indicating the presence of strong statistical evidence related to acceptable values (Hair et al., 2019). Average Variance Extracted (AVE) testing is used to assess construct validity where AVE values exceed the recommended limit of 0.5 (Hair et al., 2017), indicating the presence of good convergent validity for the proposed construction.

The Cronbach Alpha (CA) value, which assesses the internal robustness of construction, Table 2 shows to be in the range between 0.774 and 0.886, indicating high consistency in technology-based construction. In addition, a Composite Reliability (CR) assessment is also carried out, as per the literature suggestion (Sarstedt et al., 2019), and the result in Table 2 shows that the CR value exceeds the threshold of 0.7.

The discriminant validity test assesses the extent to which a construct differs from other constructs in a study. It involves measuring correlations between constructs that should be different but not interrelated. The results show whether the measuring instrument can distinguish between different constructs. This method is essential in validating measuring devices to ensure that they obtain valid and reliable data.

The Fornell-Larcker test uses a correlation matrix to compare the square root of the AVE with other construct correlations. If the square root of AVE is greater than the correlation with other constructs, the validity of the discriminant is satisfied (Henseler et al., 2015). Table 3 displays the results of the Fornell-Larcker test, which indicates that the correlation value between constructions in one column is higher than that of other constructions.

Meanwhile, Heterotrait-Monotrait (HTMT) testing aims to compare the relationship between constructs with relationships between other constructs and determine relevant limit values. Based on the analysis results in Table 4, it can be concluded that the resulting correlation value is below the recommended assumption threshold of 0.85 (Roemer et al., 2021).

4.2. Structural Model Result
By referring to the validity and reliability of the measurement model, this study applies Structural Equation Modeling (SEM) using the PLS Algorithm. The results of the path coefficient show a significant conformity at the established level of significance, which supports the model's suitability for further analysis. In addition, bootstrapping tests using 5,000 subsamples were used to explore the structural importance of the model (Figure 3) and test the proposed direct relationship between those constructs (Streukens and Leroi-Werelds, 2016).

The results of hypothesis testing in Table 5 show a significant relationship between nature policy, cultural activity policy, recreation policy, and infrastructure development policy with sustainable tourism development. Nature policies have a considerable positive impact on sustainable tourism development with a path coefficient of 0.263 (t = 2.283, P = 0.023). In contrast, cultural activity policies (path coefficient: 0.665, t = 25.583, P = 0.000), recreation policies (path coefficient: 0.471, t = 11.701, P = 0.000), and infrastructure development policies (path coefficient: 0.195, t = 2.563, P = 0.000) also show significant positive impacts. The results of testing the moderation hypothesis show that community participation has no significant effect on the relationship between nature policy, infrastructure development policy, and sustainable tourism development. The impact of community development moderation was significantly positive between cultural activity policy and recreation policy, and sustainable tourism development.

R-squared testing measures how well regression models explain variations in response variables (Ozili, 2023). The results of the R-Square test show that the regression model built can explain variations in sustainable tourism development very strongly through the significance of R-Square above the criteria.

4.3. Discussion
Research on sustainable tourism policies is becoming urgent, given the significant impact on the environment and culture in tourism destinations. Environmental crises, such as climate change and ecosystem degradation, emphasize the need for policies that defend natural resources. In addition, uncontrolled tourism growth can threaten local communities' economic and social sustainability, such as increasing property prices and losing cultural heritage. This research needs to explore policies driving sustainable tourism development with case studies in Indonesia.

Table 2: Research reliability validity test

Variable	Loading factor	AVE	CA	CR
Nature Policy		0.607	0.866	0.901
• The current nature tourism policy helps in the preservation of the environment in my area	0.763			
• Enforcement of policies related to wildlife protection is a top priority in the development of natural tourism	0.764			
• The existence of clear regulations in limiting the number of visitors in natural tourism areas affects the tourist experience positively	0.872			
• Investment in eco-friendly infrastructure, such as a network of hiking trails and waste management facilities, is indispensable in the development of natural tourism	0.833			
• The active role of local communities in the management and development of natural tourism can increase the positive impact on the economy and environmental sustainability	0.868			
• Environmental education and awareness should be a key focus in the promotion of nature tourism to support long-term sustainability	0.721			
Cultural activity policy		0.531	0.774	0.841
• Tourism policies that support local cultural activities are a top priority in the development of tourist destinations	0.732			
• The involvement of local communities in the planning and implementation of cultural activities as part of tourism policy is considered important	0.741			
• There are incentives and support from the government for the development and promotion of cultural activities as the main attraction for tourists	0.838			
• Enforcement of policies for the protection and preservation of cultural heritage in regional tourism is considered crucial for the sustainable development of tourist destinations	0.867			
• The development of education and training programs for tourism actors related to policies and practices in maintaining sustainability and diversity of local culture	0.849			
Recreation policy		0.690	0.886	0.917
• Our leisure tourism policy pays adequate attention to environmental sustainability	0.892			
• Our leisure tourism policy takes into account the needs of local communities in the development of tourist destinations	0.877			
• Qualified human resources support existing recreational tourism policies	0.862			
• Recreational tourism policy provides good accessibility for all walks of life	0.775			
• Recreational tourism policy promotes local cultural and artistic diversity	0.828			
Infrastructure development policy		0.580	0.811	0.869
• The government has allocated an adequate budget for the development of regional tourism infrastructure	0.859			
• The development of regional tourism infrastructure has been carefully planned and comprehensively.	0.866			
• The development of regional tourism infrastructure has improved accessibility to major tourism destinations	0.770			
• Providing public facilities such as toilets, parking lots, and adequate health facilities around tourist attractions is very important to improve the quality of the tourist experience.	0.784			
• The provision of fast and extensive internet access around our tourist destinations increases visitor satisfaction and facilitates digital tourism promotion	0.758			
Community participation		0.594	0.835	0.877
• The opinions and input of the local community are highly valued in the development of tourism programs	0.849			
• We actively involve local communities in planning and decision-making related to tourism development	0.854			
• The tourism program we develop pays attention to the needs and desires directly from the local community	0.869			
• Local communities are actively involved in the promotion of our tourist destinations, such as through social media activities or local campaigns	0.776			
• We provide training and opportunities for local people to get involved in tourism ventures, such as homestays or local craft-making	0.756			
Sustainable tourism development		0.635	0.876	0.910
• Our tourism development programs pay attention to the sustainability of the local environment	0.742			
• We are committed to protecting local cultural and historical heritage in tourism development	0.808			
• The development of tourism infrastructure in our area is carried out by taking into account its impact on the environment	0.875			
• We empower local communities in the management and benefits of the tourism industry	0.844			
• We promote responsible and sustainable tourism activities to tourists	0.885			
• In tourism development, we prioritize the welfare of local communities and minimize their adverse impacts	0.838			

Table 3: Fornell-Larcker test

	CP	CAP	IDP	NP	RP	STD
CP	0.971					
CAP	0.728	0.939				
IDP	0.897	0.749	0.963			
NP	0.949	0.764	0.864	0.879		
RP	0.747	0.804	0.841	0.856	0.931	
STD	0.716	0.858	0.778	0.800	0.811	0.797

Table 4: HTMT test

	CP	CAP	IDP	NP	RP	STD
CP						
CAP	0.775					
IDP	0.498	0.782				
NP	0.690	0.402	0.551			
RP	0.798	0.402	0.760	0.755		
STD	0.806	0.422	0.307	0.605	0.711	

The test results show a positive relationship between environmental policies and sustainable tourism development in Indonesia. These results align with previous studies showing that solid environmental policies can catalyze the protection of natural ecosystems and create a welcoming tourist attraction for all parties (Lee et al., 2021; Wall-Reinius et al., 2023). These findings underscore the importance of implementing environmental policies, such as nature conservation and waste management, in promoting the economic growth of environmentally friendly tourism. Integrating environmental policy and tourism development also supports sustainable practices and protects the environment. Furthermore, cultural activity policy also contributes positively to sustainable tourism development. These results support several studies' statements that highlight cultural diversity's importance in contributing to sustainable ecological and socio-economic well-being (Pulido-Fernández et al., 2016; Stevenson, 2013). This

Table 5: Test hypothesis and R-square

Hypothesis	Path Coefficient	t-test	P-value	Decision	R-square
Nature Policy → Sustainable Tourism Development	0.263	2,283	0.023	Accepted	0.984
Cultural Activity Policy → Sustainable Tourism Development	0.665	25,583	0.000	Accepted	
Recreation Policy → Sustainable Tourism Development	0.471	11,701	0.000	Accepted	
Infrastructure Development Policy → Sustainable Tourism Development	0.195	2,563	0.000	Accepted	
Nature Policy → Community Participation → Sustainable Tourism Development	0.007	0,152	0.879	Decline	
Cultural Activity Policy → Community Participation → Sustainable Tourism Development	0.058	3,205	0.001	Accepted	
Recreation Policy → Community Participation → Sustainable Tourism Development	0.095	3,377	0.001	Accepted	
Infrastructure Development Policy → Community Participation → Sustainable Tourism Development	0.060	1,049	0.294	Decline	

Figure 3: Bootstrapping output
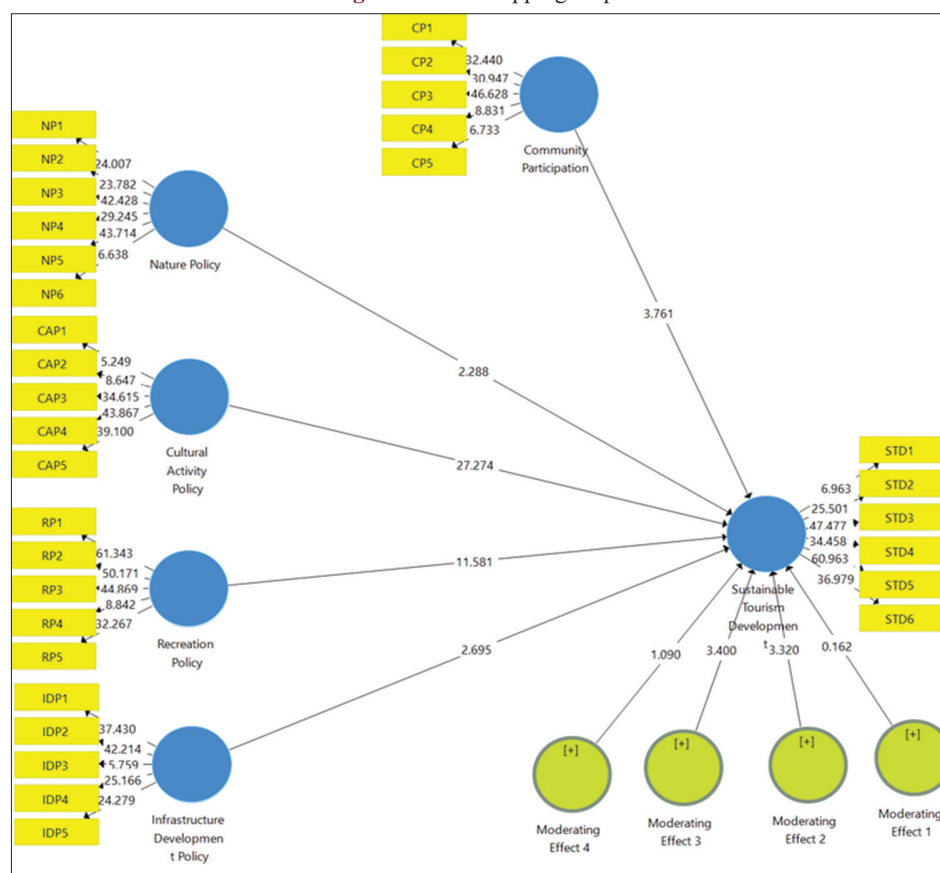
shows the importance of promoting and preserving local cultural heritage, which not only enhances the tourist experience but also strengthens local people's economy and cultural identity. These two findings affirm the need for integrating environmental and cultural policies in developing sustainable tourism in Indonesia, creating inclusive economic opportunities while safeguarding cultural heritage for future generations.

The results of the path coefficient show a positive relationship between recreation policy and sustainable tourism development in Indonesia, and this accepts the third hypothesis. These results are in line with previous literature that underscores the socio-economic balance in recreational area management policies in contributing to tourist satisfaction and positive impacts on surrounding communities (Caswell et al., 2021; Hansen et al., 2023). These findings highlight the critical role of leisure policy in sustainable tourism development in Indonesia. Policies that support the management of parks, recreational facilities, and natural tourism activities can increase tourism destinations' attractiveness and positively contribute to the local economy. The results of the last hypothesis test are accepted, implying the positive influence of infrastructure development policy on sustainable tourism development. It verifies the opinions of researchers linking infrastructure development and tourism progress and the implications of the growth of the welfare of surrounding communities (Ababkova and Vasileva, 2020; Andrades and Dimanche, 2017). These results imply the critical role of infrastructure development policies in advancing sustainable tourism in Indonesia. Development of transportation access, accommodation facilities, and other tourism facilities that support the tourist experience. With adequate infrastructure, tourism destinations can attract more visits without sacrificing the environment or the quality of the tourist experience. In addition, good infrastructure also opens up new economic opportunities for local communities, including in the service and trade sectors.

This study examines the role of community participation as a moderation between Indonesia's tourism policy and sustainable tourism development. The findings show that community participation has a significant role in moderating the relationship between cultural and recreational activity policies and sustainable tourism development. This suggests that the effect of such policies depends on the level of community involvement and support. This indicates that the level of community involvement can influence the extent to which cultural and recreational policies contribute to sustainable tourism development. As communities are more involved in policy-making processes and implementing cultural and recreational programs, the positive impact on sustainable tourism development becomes stronger. It emphasizes the importance of paying attention to community participation in designing and implementing tourism policies to ensure the success of economically, socially, and environmentally sustainable tourism development. On the other hand, community participation has no significant effect on moderating the relationship between nature policy, infrastructure development policy, and sustainable tourism development. This implies that current community involvement strategies in creating and implementing nature policies and more technical tourism infrastructure are still insufficient. This

condition is different from cultural activities and recreation policies that touch the psycho-socio community. This can cause disconnection of community needs with the policies implemented, thus potentially hampering sustainable tourism development. These findings could inform local-level policymakers and tourism practitioners better to involve communities in technical policies for sustainable tourism management.

This research makes a significant theoretical contribution to the tourism literature by highlighting the role of environmental, cultural, recreational, and infrastructure development policies in sustainable tourism development in Indonesia. The theoretical knowledge gap in the tourism literature is resolved by providing a deeper understanding of the relationship between tourism policy and sustainable tourism development. Research models built from tourism policy groups interact empirically on sustainable tourism development.

This study builds a public policy research perspective, especially in the tourism-creative economy subinterest that prioritizes the alignment of natural resources, protects cultural heritage, and promotes inclusive economic growth. The results showed that environmental policies, cultural activities, recreational policies, and infrastructure development positively impact sustainable tourism development. This study raises a complex approach to understanding the dynamics of interactions between policy variables in encouraging sustainable tourism development.

The study also emphasizes the variable of community participation in designing and implementing tourism policies, especially related to cultural and recreational activities. However, the findings suggest that community participation may not be sufficient in nature and infrastructure policies, highlighting the need for more attention to community involvement in technical policies of sustainable tourism management. Findings on community participation in sustainable tourism policies may encourage the development of participation theories that are more contextual and culturally sensitive to communities.

This research highlights the urgency of sustainable tourism policies, given the significant impact on the environment and culture in tourism destinations. The practical implication for tourism policymakers is integrating environmental, cultural, recreational, and infrastructure development policies to achieve sustainable tourism in Indonesia. This study views the importance of environmental policies, such as nature conservation, the use of renewable energy, and waste management, in promoting the economic growth of environmentally friendly tourism. Integrating environmental policy and tourism development supports sustainable practices and protects the environment. The policy of cultural activities contributes positively to sustainable tourism development. Promoting and preserving local cultural heritage not only enhances the tourist experience but also strengthens local people's economy and cultural identity. Leisure policy and infrastructure development are vital in increasing the attractiveness of tourism destinations and positively contributing to the local economy. Developing adequate infrastructure for local and foreign tourists to visit opens up new economic opportunities for local

communities. This includes integrating advanced technologies such as online transportation access, the Internet of Things for E-Travel, Artificial Intelligence, Virtual Tourism, and Metaverse in sustainable tourism promotion. Infrastructure planning must consider environmental and social aspects to minimize negative impacts on the environment and local communities.

The critical role of community participation in moderating the relationship between tourism policies and sustainable tourism development emphasizes the need to involve communities in designing and implementing tourism policies. The success of sustainable tourism development depends on community involvement and support in the policy-making process and implementation of tourism culture, recreation, and infrastructure programs. Cooperation of local governments as regulators is needed with various parties, such as academics, non-governmental organizations, and the private sector, to develop and implement effective, sustainable tourism policies. The practical implications are expected to support sustainable tourism development, protect the environment and culture, and provide economic and social benefits to local communities.

5. CONCLUSIONS

This research highlights the urgency of sustainable tourism policies in Indonesia, given their significant impact on local communities' environment, culture, and well-being. The results showed that environmental, cultural activity, recreation, and infrastructure development policies are crucial in sustainable tourism development. The findings confirm the need to integrate technical and psycho-social policies of the community in such efforts. Community engagement is proven to moderate the relationship between cultural and recreational policies and sustainable tourism development, emphasizing the importance of their participation in designing and implementing tourism policies. It is noted that community participation has not moderated nature and infrastructure policies significantly, indicating the need for improved community engagement strategies in technical aspects of tourism.

This study has successfully answered the research objectives, closed the gap, and made a strategic direction in sustainable tourism governance. Theoretical and practical implications for tourism academics and practitioners are to ensure the success of economically, socially, and environmentally sustainable tourism development by strengthening policy integration and increasing community participation. However, this study has some limitations that must be considered when interpreting the findings. This empirical study focuses on single-state objects through purposive sampling, thus demonstrating caution in generalizing the findings. Therefore, replicating this study using samples from different research contexts (e.g., different countries and other countries' halal tourist destinations) can provide valuable evidence to improve the generalizability of our findings. Next, focusing on specific policies such as environmental, cultural, recreational, and infrastructure may leave out other aspects affecting sustainable tourism. Future research proposals may include cross-country studies to compare policy effectiveness across different contexts

and explore other factors, such as tourism promotion policies and crisis management. In addition, future research may deepen understanding of how to integrate community participation in technical policies such as environmental and infrastructure management to ensure holistic tourism sustainability.

6. FUNDING

REFERENCES

Ababkova, M., Vasileva, O. (2020), System approach to evaluation of tourism cluster companies' environment and performance. E3S Web of Conferences, 175, 10014.

Anctil, A., Blanc, D.L. (2016), An educational simulation tool for integrated coastal tourism development in developing countries. Journal of Sustainable Tourism, 24(5), 783-798.

Andrades, L., Dimanche, F. (2017), Destination competitiveness and tourism development in Russia: Issues and challenges. Tourism Management, 62, 360-376.

Balletto, G., Milesi, A., Ladu, M., Borruso, G. (2020), A dashboard for supporting slow tourism in green infrastructures. A methodological proposal in Sardinia (Italy). Sustainability, 12(9), 3579.

Bandeira, M.M., Wheaton, B., Amaral, S.C. (2023), The development of pioneer national policy on adventure recreation in Brazil and Aotearoa/New Zealand's first review. Leisure Studies, 42(3), 352-366.

Becker, J.M., Cheah, J.H., Gholamzade, R., Ringle, C.M., Sarstedt, M. (2023), PLS-SEM's most wanted guidance. International Journal of Contemporary Hospitality Management, 35(1), 321-346.

Bloise, J., Wenzelburger, G., Siewert, M.B. (2024), To protect or not protect? Comparing nature conservation policies in the German federal states. Regional and Federal Studies, 34(2), 113-139.

Bratyuk, V.P. (2013), Marketing support improvement within implementation of state policy of tourism development. Actual Problems of Economics, 145(7), 50-58.

Brendehaug, E., Aall, C., Dodds, R. (2017), Environmental policy integration as a strategy for sustainable tourism planning: Issues in implementation. Journal of Sustainable Tourism, 25(9), 1257-1274.

Calderón-Vargas, F., Asmat-Campos, D., Chávez-Arroyo, P. (2021), Sustainable tourism policies in Peru and their link with renewable energy: Analysis in the main museums of the Moche route. Heliyon, 7(10), e08188.

Cao, X. (2015), Challenges and potential improvements in the policy and regulatory framework for sustainable tourism planning in China: The case of Shanxi Province. Journal of Sustainable Tourism, 23(3), 455-476.

Castellani, V., Sala, S. (2010), Sustainable performance index for tourism policy development. Tourism Management, 31(6), 871-880.

Caswell, S., Naylor, P.J., Olstad, D., Kirk, S., Mâsse, L., Raine, K., Hanning, R. (2021), Recreation facility food and beverage environments in Ontario, Canada: An appeal for policy. International Journal of Environmental Research and Public Health, 18(15), 8174.

Connelly, A., Sam, S. (2018), How can tourism policy influence the path to sustainable tourism development in Guyana by 2025? Worldwide Hospitality and Tourism Themes, 10(5), 545-554.

Dammers, E., Van Hinsberg, A., Vader, J., Wiersinga, W. (2011), Scenariobuilding for nature policy. Landschap, 28(4), 183-191.

Dennis, S. (2019), Outdoor recreation policy implementation on national forests in Southern California: Coping to manage under hostile conditions. In: Culture, Conflict, and Communication in the Wildland-Urban Interface. California: Avalon Publishing, p327-335.

Dias, Á., Silva, G.M., Patuleia, M., González-Rodríguez, M.R. (2023), Developing sustainable business models: Local knowledge acquisition and tourism lifestyle entrepreneurship. Journal of Sustainable Tourism, 31(4), 931-950.

Dinica, V. (2006), Policy measures and governance for sustainable tourism and recreation in the Netherlands - An evaluation. Tourism, 54(3), 245-258.

Dodds, R. (2007), Sustainable tourism and policy implementation: Lessons from the Case of Calviá, Spain. Current Issues in Tourism, 10(4), 296-322.

Dudley, D., Cairney, J., Wainwright, N., Kriellaars, D., Mitchell, D. (2017), Critical considerations for physical literacy policy in public health, recreation, sport, and education agencies. Quest, 69(4), 436-452.

Eyisi, A., Lee, D., Trees, K. (2021), Facilitating collaboration and community participation in tourism development: The case of South-Eastern Nigeria. Tourism and Hospitality Research, 21(3), 275-288.

Farsari, I., Butler, R.W., Szivas, E. (2010), The use of cognitive mapping in analysing sustainable tourism policy: Methodological implications. Tourism Recreation Research, 35(2), 145-160.

Firman, A., Moslehpour, M., Qiu, R., Lin, P.K., Ismail, T., Rahman, F.F. (2023), The impact of eco-innovation, ecotourism policy and social media on sustainable tourism development: Evidence from the tourism sector of Indonesia. Economic Research Ekonomska Istrazivanja, 36(2), 2143847.

Fitriyah, P., Nurhaeni, I.D.A. (2021), Netnography and social network analysis: Centrality actors reopening Indonesia's tourism industry in a transitional Era. Jurnal Komunikasi Malaysian Journal of Communication, 37(3), 257-273.

Ghosh, B.K., Batabyal, D. (2022), Measuring tourism efficiency for sustainable tourism policies: An empirical study for India. Journal of Tourism and Development, 38, 23-33.

Guo, Y., Jiang, J., Li, S. (2019), A sustainable tourism policy research review. Sustainability, 11(11), 3187.

Ha, H., Wong, T. (2023), Tourism industry and the COVID-19 pandemic: A case study in Indonesia. In: Singh, A., editor. International Handbook of Disaster Research. Berlin: Springer Nature Singapore, p2413-2424.

Hair, J.F., Risher, J.J., Sarstedt, M., Ringle, C.M. (2019), When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2-24.

Hair, J., Hollingsworth, C.L., Randolph, A.B., Chong, A.Y.L. (2017), An updated and expanded assessment of PLS-SEM in information systems research. Industrial Management and Data Systems, 117(3), 442-458.

Hansen, A.S., Beery, T., Fredman, P., Wolf-Watz, D. (2023), Outdoor recreation in Sweden during and after the COVID-19 pandemic-management and policy implications. Journal of Environmental Planning and Management, 66(7), 1472-1493.

Hariguna, T., Ruangkanjanases, A., Henderi, H. (2021), The moderating effect of destination quality on tourism policy and tourism development. International Journal for Quality Research, 15(2), 469-486.

Henseler, J., Ringle, C.M., Sarstedt, M. (2015), A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43(1), 115-135.

Ho, L. (2017), Toward cultural policy studies on mobility: Reflections on a study of the Hong Kong working holiday scheme. Cultural Studies Review, 23(1), 69-86.

Ibrahim, M.R., Shuib, A., Ramachandran, S., Afandi, S.H.M. (2018), Community participation in tourism microenterprises among Amanah Ikhtiar Malaysia borrowers in Semporna, Malaysia. International Journal of Business and Society, 19(S1), 88-102.

Irewati, A., Nufus, H. (2024), Indonesia's efforts in developing halal tourism through the Indonesia-Malaysia-Thailand growth triangle (IMT-GT). Multidisciplinary Journal of Southeast Asian Studies, 16(1), 229-269.

Jänis, J. (2012), The role of local policy knowledge in the implementation of Namibian tourism policy. International Journal of Tourism Policy, 4(4), 302-316.

Jin, D.Y., Otmazgin, N. (2014), Introduction: East Asian cultural industries: Policies, strategies and trajectories. Pacific Affairs, 87(1), 43-51.

Kanwal, S., Rasheed, M.I., Pitafi, A.H., Pitafi, A., Ren, M. (2020), Road and transport infrastructure development and community support for tourism: The role of perceived benefits, and community satisfaction. Tourism Management, 77, 104014.

Khan, A., Bibi, S., Ardito, L., Lyu, J., Hayat, H., Arif, A.M. (2020), Revisiting the dynamics of tourism, economic growth, and environmental pollutants in the emerging economies-sustainable tourism policy implications. Sustainability (Switzerland), 12(6), 2563.

Khan, M.R., Khan, H.U.R., Lim, C.K., Tan, K.L., Ahmed, M.F. (2021), Sustainable tourism policy, destination management and sustainable tourism development: A moderated-mediation model. Sustainability (Switzerland), 13(21), 12156.

Kim, H.L., Hyun, S.S. (2021), The anchoring effect of aviation green tax for sustainable tourism, based on the nudge theory. Journal of Sustainable Tourism, 29(7), 1082-1097.

Kitheka, B.M., Backman, K.S. (2016), Gaps identified in Tourism-environment policy in Kenya: A content analysis to assess sustainable tourism policy in the country. International Journal of Tourism Policy, 6(3-4), 235-255.

Kularatne, T., Wilson, C., Lee, B., Hoang, V.N. (2021), Tourists' before and after experience valuations: A unique choice experiment with policy implications for the nature-based tourism industry. Economic Analysis and Policy, 69, 529-543.

Kurniawan, E., Astuti, T.M.P., Syifauddin, M. (2022), Community participation in creating sustainable community-based tourism. Visions for Sustainability, 17, 5997.

Lee, T.H., Jan, F.H., Liu, J.T. (2021), Developing an indicator framework for assessing sustainable tourism: Evidence from a Taiwan ecological resort. Ecological Indicators, 125, 107596.

Llewellyn, J., Rich, K.A. (2023), Youth development in municipal recreation policy: A case study of Ontario, Canada. International Journal of Sport Policy and Politics, 16, 575-591.

Luo, J.M., Lam, C.F., Ye, B.H. (2019), Barriers for the sustainable development of entertainment tourism in Macau. Sustainability, 11(7), 2145.

Luonila, M., Ruokolainen, O. (2024), "Happy, healthy and participatory citizens": suburban cultural policy in the Finnish city of Jyväskylä. International Journal of Cultural Policy, 30(1), 101-117.

Luštický, M., Gunina, D., Oberhel, M. (2017), Multi-criteria approach for measuring stakeholder perception on the impacts of tourism policy. Global Business and Finance Review, 22(3), 95-109.

Mak, B.K.L., Cheung, L.T.O., Hui, D.L.H. (2017), Community participation in the decision-making process for sustainable tourism development in rural areas of Hong Kong, China. Sustainability, 9(10), 1695.

Mattijssen, T.J.M., Ganzevoort, W., Van Den Born, R.J.G., Arts, B.J.M., Breman, B.C., Buijs, A.E., Van Dam, R.I., Elands, B.H.M., De

Groot, W.T., Knippenberg, L.W.J. (2020), Relational values of nature: Leverage points for nature policy in Europe. Ecosystems and People, 16(1), 402-410.

Megawati, S., Alfarizi, M., Syamsul, M.R. (2024), Key advantages of the green government initiative in achieving local public service performance and sustainable development. International Journal of Sustainable Development and Planning, 19(11), 4361-4375.

Megawati, S., Mahdiannur, M.A. (2021), Implementation of forest conservation policies based on local wisdom of the ammatoa kajang indigenous community. In: Sodri, A., Herdiansyah, H., Gheewala, S.H., Mulyani, M.E., Steinebach, S., Gozan, M., Hartono, D., Kusumastuti, R.D., Mukti, R.R., Dartanto, TY., Khatib, J., editors. IOP Conference Series: Earth and Environmental Science. Vol. 940. England: IOP Publishing Ltd.

Mellon, V., Bramwell, B. (2016), Protected area policies and sustainable tourism: Influences, relationships and co-evolution. Journal of Sustainable Tourism, 24(10), 1369-1386.

Memon, M.A., Ramayah, T., Cheah, J.H., Ting, H., Chuah, F., Cham, T.H. (2021), PLS-SEM statistical programs: A review. Journal of Applied Structural Equation Modeling, 5(1), i-xiv.

Moniche, A., Gallego, I. (2023), Benefits of policy actor embeddedness for sustainable tourism indicators' design: The case of Andalusia. Journal of Sustainable Tourism, 31(7), 1756-1775.

Muangasame, K., McKercher, B. (2015), The challenge of implementing sustainable tourism policy: A 360-degree assessment of Thailand's "7 Greens sustainable tourism policy." Journal of Sustainable Tourism, 23(4), 497-516.

Nikolaeva, J.V., Bogoliubova, N.M., Shirin, S.S. (2018), Ecological tourism in the State image policy structure. Experience and problems of modern Russia. Current Issues in Tourism, 21(5), 547-566.

Olstad, D.L., Raine, K.D., Prowse, R.J.L., Tomlin, D., Kirk, S.F., McIsaac, J.L.D., Mâsse, L.C., Caswell, M.S., Hanning, R.M., Milford, T., Naylor, P.J. (2019), Eat, play, live: A randomized controlled trial within a natural experiment examining the role of nutrition policy and capacity building in improving food environments in recreation and sport facilities. International Journal of Behavioral Nutrition and Physical Activity, 16(1), 51.

Ozili, P.K. (2023), The acceptable R-square in empirical modelling for social science research. In: Social Research Methodology and Publishing Results. Pennsylvania: IGI Global, p134-143.

Pan, S.Y., Gao, M., Kim, H., Shah, K.J., Pei, S.L., Chiang, P.C. (2018), Advances and challenges in sustainable tourism toward a green economy. Science of the Total Environment, 635, 452-469.

Panasiuk, A. (2020), Policy of sustainable development of Urban tourism. Polish Journal of Sport and Tourism, 27(2), 33-37.

Peña-Sánchez, A.R., Ruiz-Chico, J., Jiménez-García, M., López-Sánchez, J.A. (2020), Tourism and the SDGs: An analysis of economic growth, decent employment, and gender equality in the European Union (2009-2018). Sustainability, 12(13), 5480.

Petrova, M., Dekhtyar, N., Klok, O., Loseva, O. (2018), Regional tourism infrastructure development in the state strategies. Problems and Perspectives in Management, 16(4), 259-274.

Powers, S.L., Pitas, N.A., Barrett, A.G., Graefe, A.R., Mowen, A.J. (2021), Local policy-makers' community priorities and perceived contributions of parks and recreation. Journal of Park and Recreation Administration, 39(3), 37-54.

Psychogiopoulou, E. (2017), The cultural open method of coordination: A new boost for cultural policies in Europe? Maastricht Journal of European and Comparative Law, 24(2), 264-288.

Pulido-Fernández, J.I., Cárdenas-García, P.J., Carrillo-Hidalgo, I. (2016), Trip cultural activities and tourism expenditure in emerging Urban-cultural destinations. International Journal of Tourism Research, 18(4), 286-296.

Putri, Y.E., Rosya, N., Siska, F. (2021), The meaning of creative economy in the minangkabu community in the West Sumatra Tourism Destination Area, Indonesia. Geojournal of Tourism and Geosites, 33(4), 1551-1556.

Qin, Y., Albrecht, J.N., Tao, L. (2024), The effects of migratory village residents' Social identity on community participation in Tourism. Journal of China Tourism Research, 20, 811-837.

Rasoolimanesh, S.M., Ramakrishna, S., Hall, C.M., Esfandiar, K., Seyfi, S. (2023), A systematic scoping review of sustainable tourism indicators in relation to the sustainable development goals. Journal of Sustainable Tourism, 31(7), 1497-1517.

Rasoolimanesh, S.M., Ringle, C.M., Jaafar, M., Ramayah, T. (2017), Urban vs. Rural destinations: Residents' perceptions, community participation and support for tourism development. Tourism Management, 60, 147-158.

Reindrawati, D.Y. (2023), Challenges of community participation in tourism planning in developing countries. Cogent Social Sciences, 9(1), 2164240.

Rizal, A., Apriliani, I.M., Permana, R. (2021), Sustainable management policy strategy of coastal tourism in Pangandaran district, Indonesia. Geojournal of Tourism and Geosites, 37(3), 894-904.

Roemer, E., Schuberth, F., Henseler, J. (2021), HTMT2-an improved criterion for assessing discriminant validity in structural equation modeling. Industrial Management and Data Systems, 121(12), 2637-2650.

Rustini, N.K.A., Budhi, M.K.S., Setyari, N.P.W., Suasih, N.N.R. (2023), Designing pathways towards sustainable tourism in Soka Tourism Bali: A MULTIPOL policy analysis. Decision Science Letters, 12(4), 649-658.

Sala, S., Amadei, A.M., Beylot, A., Ardente, F. (2021), The evolution of life cycle assessment in European policies over three decades. The International Journal of Life Cycle Assessment, 26(12), 2295-2314.

Sarstedt, M., Hair, J.F., Cheah, J.H., Becker, J.M., Ringle, C.M. (2019), How to specify, estimate, and validate higher-order constructs in PLS-SEM. Australasian Marketing Journal, 27(3), 197-211.

Sarstedt, M., Radomir, L., Moisescu, O.I., Ringle, C.M. (2022), Latent class analysis in PLS-SEM: A review and recommendations for future applications. Journal of Business Research, 138, 398-407.

Schönherr, S., Peters, M., Kuščer, K. (2023), Sustainable tourism policies: From crisis-related awareness to agendas towards measures. Journal of Destination Marketing and Management, 27, 100762.

Schroeder, K. (2015), Cultural values and sustainable tourism governance in Bhutan. Sustainability, 7(12), 16616-16630.

Seifer, J.B. (2021), Policy factors influencing the establishment of state outdoor recreation offices. Journal of Outdoor Recreation and Tourism, 33, 100359.

Şeremet, M., Cihangir, E., Cihangir-Çamur, K. (2023), An evaluation of turkey's nature-based tourism agenda: Policy, planning, and management. In: The Routledge Handbook of Nature based Tourism Development. London: Taylor and Francis, p519-542.

Shafer, E.L., Choi, Y. (2006), Forging nature-based tourism policy issues: A case study in Pennsylvania. Tourism Management, 27(4), 615-628.

Shakeela, A., Ruhanen, L., Breakey, N. (2012), Human resource policies: Striving for sustainable tourism outcomes in the Maldives. Tourism Recreation Research, 37(2), 113-122.

Sovacool, B.K., Ali, S.H., Bazilian, M., Radley, B., Nemery, B., Okatz, J., Mulvaney, D. (2020), Sustainable minerals and metals for a low-carbon future. Science, 367(6473), 30-33.

Spenceley, A. (2008), Requirements for sustainable nature-based tourism in transfrontier conservation areas: A Southern African Delphi Consultation. Tourism Geographies, 10(3), 285-311.

Srisawat, P., Zhang, W., Sukpatch, K., Wichitphongsa, W. (2023), Tourist behavior and sustainable tourism policy planning in the COVID-19

Era: Insights from Thailand. Sustainability, 15(7), 5724.

Stevenson, D. (2013), What's the problem again? The problematisation of cultural participation in Scottish cultural policy. Cultural Trends, 22(2), 77-85.

Stone, L.S., Stone, M.T., Mogomotsi, P.K., Mogomotsi, G.E.J. (2021), The impacts of covid-19 on nature-based tourism in botswana: Implications for community development. Tourism Review International, 45(2-3), 263-278.

Stone, L.S., Stone, T.M. (2011), Community-based tourism enterprises: Challenges and prospects for community participation; Khama Rhino Sanctuary trust, Botswana. Journal of Sustainable Tourism, 19(1), 97-114.

Strange, N., Geldmann, J., Burgess, N.D., Bull, J.W. (2022), Policy responses to the Ukraine crisis threaten European biodiversity. Nature Ecology Evolution, 6(8), 1048-1049.

Streimikiene, D., Svagzdiene, B., Jasinskas, E., Simanavicius, A. (2021), Sustainable tourism development and competitiveness: The systematic literature review. Sustainable Development, 29(1), 259-271.

Streukens, S., Leroi-Werelds, S. (2016), Bootstrapping and PLS-SEM: A step-by-step guide to get more out of your bootstrap results. European Management Journal, 34(6), 618-632.

Stumpf, T.S., Swanger, N. (2015), Tourism involvement-conformance theory: A grounded theory concerning the latent consequences of sustainable tourism policy shifts. Journal of Sustainable Tourism, 23(4), 618-637.

Torres-Delgado, A., López Palomeque, F. (2012), The growth and spread of the concept of sustainable tourism: The contribution of institutional initiatives to tourism policy. Tourism Management Perspectives, 4, 1-10.

Trung, L.M., Prabhakaran, S. (2023), The role of sustainable tourism policy, destination management, and tourist perceptions towards sustainable tourism in Vietnam. Przestrzen Spoleczna, 23(3), 310-334.

Upadhya, A. (2016), Polity, policy and destination management: An exploratory study of political systems and management of tourism with special reference to the GCC countries. International Journal of Tourism Policy, 6(3-4), 341-361.

Vasile, V., Bănică, E. (2019), Cultural Heritage Tourism Export and Local Development. Performance Indicators and Policy Challenges for Romania. Springer Proceedings in Business and Economics; 2019, p271-290.

Viana-Lora, A., Orgaz-Agüera, F., Aguilar-Rivero, M., Moral-Cuadra, S. (2023), Does the education level of residents influence the support for sustainable tourism? Current Issues in Tourism, 27, 1-19.

Wall-Reinius, S., Kling, K.G., Ioannides, D. (2023), Access to nature for persons with disabilities: Perspectives and practices of Swedish Tourism providers. Tourism Planning Development, 20(3), 336-354.

Witchayakawin, P., Aziz, Y.A., Mahomed, A.S.B.B., Abdullah, N.H.B. (2022), Comparing stakeholder participation in community-based tourism (CBT), examples from Thailand. Geojournal of Tourism and Geosites, 41(2), 531-540.

World Tourism Organization. (2023), Tourism on Track for Full Recovery as New Data Shows Strong Start to 2023. Spain: World Tourism Organization.

World Tourism Organization. (2024), International Tourism to Reach Pre-Pandemic Levels in 2024. Spain: World Tourism Organization.

Xu, H., Jiang, F., Wall, G., Wang, Y. (2019), The evolving path of community participation in tourism in China. Journal of Sustainable Tourism, 27(8), 1239-1258.

Xu, H., Sofield, T. (2016), Sustainability in Chinese development tourism policies. Current Issues in Tourism, 19(13), 1337-1355.

Ye, S., Du, F., Wu, K., Zhuang, S., Liu, Y. (2023), Cultural limitation analysis of participation in tourism development in scenic area dependent communities: The case study of the communities in Shibing Karst Heritage Site. World Regional Studies, 32(6), 142-156.

Yüksel, A., Yüksel, F., Culha, O. (2012), Ministers' statements: A policy implementation instrument for sustainable tourism? Journal of Sustainable Tourism, 20(4), 513-532.

Zachariou, M., Burgess, D. (2023), Mapping the excess demand for recreation in Northern Ireland to inform land use policy. Journal of Outdoor Recreation and Tourism, 42, 100638.

Zhang, J., Zhang, Y. (2022), Tourism, transport infrastructure and income inequality: A panel data analysis of China. Current Issues in Tourism, 25(10), 1607-1626.

Zhao, L., Li, Y., Zhang, N., Zhang, Z. (2023), Public policies and conservation plans of historic urban landscapes under the sustainable heritage tourism milieu: Discussions on the equilibrium model on Kulangsu Island, UNESCO World Heritage site. Built Heritage, 7(1), 6.