

Analysis of sustainable tourism policy development strategies to support the creative economy in Banten Province

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Abstract. This study aims to analyze sustainable tourism policy development strategies to support the creative economy in Banten Province. Using a qualitative approach, the study employs the Multipol analysis method to assess multicriteria-based policies. Two development approaches were applied: program evaluation of policies and policy evaluation against scenarios. Data collection involved focus group discussions as primary data and a literature review as secondary data. Research participants included key stakeholders such as government officials, policymakers, tourism offices, academic representatives, and community leaders. The study identifies six key criteria and ten action programs essential for sustainable tourism development. Among these, technology emerges as the most critical factor, followed by infrastructure, environmental sustainability, accessibility, business development, training, product quality, tourist attractions, advertising, and investment. The findings highlight the importance of digital platforms, smart tourism, and ICT applications in enhancing tourism sustainability. Infrastructure improvements, environmental conservation, and better accessibility are essential for tourism growth. Additionally, capital accessibility and business development programs empower local entrepreneurs, while training initiatives enhance workforce skills, ensuring long-term competitiveness. The study emphasizes an integrated government- and community-driven approach to align policies with sustainable tourism objectives. Implementing digital solutions, improving infrastructure, and supporting local businesses are essential for strengthening Banten's tourism sector. This research provides a strategic framework for policymakers to develop and implement effective tourism policies. By leveraging technology, infrastructure, and business development, Banten Province can achieve sustainable tourism growth, contributing to economic development and environmental sustainability.

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1 Introduction

Tourism is a multi-billion-dollar global industry with worldwide recognition that provides employment opportunities, increases financial business assets, preserves a healthy natural and built environment on both a local and global scale, and introduces cultural heritage. The development of the tourism sector worldwide has shown the most favorable development, with the number of international tourist arrivals increasing from 25 to 100 million over the last sixty years. This growth is projected to continue, reaching 1.8 billion arrivals by 2030, with significant environmental impacts, providing undeniable socio-economic and cultural benefits. The World Travel and Tourism Council has estimated that by 2026, the tourism industry will reach a value of USD 10,986.5 billion, which is expected to represent 10.8% of global gross domestic product (GDP). Circular Economy (CE) is one of the strategies that can be implemented into sustainable tourism, as it can have many key roles in improving the quality and sustainability of the tourism sector [1].

Studies related to sustainable tourism have shifted from focusing only on the environment to a holistic approach, including economic and social dimensions [2]. Any sustainable tourism destination development that has the opportunity to support the creative economy is usually directly related to the local cultural and territorial characteristics of the region. The strategy of understanding the synergy between creativity and potential as the main tool for sustainable tourism development to support the creative economy can provide a single memorable experience and can increase tourism competitiveness and produce quality products. Creativity and innovation, apart from being a cultural heritage of local wisdom, also have a major contribution to the national economy and can improve the image of the Indonesian nation in the eyes of the international community [3,4]. In the tourism sector, the creative economy is used as the basis for economic development strategies [5].

Some parts of Indonesia are very likely for tourism activities, especially in rural areas that use sustainable resources by involving the participation of local communities, for example, in the region Bali, Banten, West Java, Central Java and East Java [6]. The development of tourism destinations in Indonesia should include social participation so that local communities benefit from tourism. Several efforts should be made, such as empowerment, improving entrepreneurial skills, and increasing the role of traditional leaders in tourism development so that goals are realized. Local communities who are actively involved in the decision-making process will encourage their participation so that the development of tourism areas in Indonesia will be more sustainable and provide benefits to all parties involved. Other benefits of local community involvement in Indonesia also have a significant impact on cultural preservation and community empowerment [7].

In previous research, related strategies play an important role in tourism development, such as providing a vision for the future, defining key issues, and prioritizing actions and existing resources, gaining professional authority and support from the government [8]. In previous research related to the evaluation results between scenarios and policies, the results of the study stated that income, conservation, production, and raw material policies could be applied to supply-side and demand-side scenarios, as well as infrastructure development and marine tourism [9].

Banten Province is known as a marine, natural, and religious tourism destination, and also as a cultural heritage place also has tourism potential in Banten Province, where tourism objects spread across four cities and four districts, consisting of 344 types of natural tourism, 231 artificial tourism and 591 religious tourism, cultural history, and pilgrimage tourism. The contribution of the tourism sector to Banten Province's economy showed a steady increase from 2019 to 2022. This trend is reflected in data from the Banten Provincial Tourism Office, which highlights the growth of the Gross Regional Domestic Product (GRDP). From 2019 to 2020, the tourism sector contributed to a GRDP growth rate of 0.03%, marking a

significant impact. In 2021, Banten's total GRDP reached 4.49%, with the tourism sector accounting for 3.54%, while the remaining 0.95% came from other industries. Between 2021 and 2022, Banten's GRDP rose by 0.54%, reaching 5.03%, further emphasizing the tourism sector's role in driving economic growth. Additionally, the tourism-related transportation and warehousing sector recorded a 1% growth, contributing over 10% to Banten's economic expansion. Alongside three other key business sectors, these industries collectively boosted the economy by 65.71% [10].

In previous studies related to the innovation of creative economy policy development models in Banten Province, it was found that the model used in the study was a network public policy model approach by believing that policy implementation is a complex process of interaction between several actors who are in an independent network [11]. Tourism development policies are supported by public facilities, visitor convenience, tourism interest, marketing and promotion, and high-quality services, making them the most effective policies in individual scenarios [12]. Previous research on sustainable tourism development policies based on a participatory approach found that institutional development policies, backed by good governance programs, are the most effective in an integrated scenario.

In line with the Regional Long-Term Development Plan (RPJPD) and Regional Medium-Term Development Plan (RPJMD), the sustainable tourism development policy in Banten Province focuses on diversifying tourism products and enhancing service quality through key initiatives:

1. Improving the skills and expertise of tourism professionals
2. Facilitating promotion, marketing, and tourism partnerships
3. Developing and organizing tourism destinations
4. Enhancing tourism infrastructure and facilities

However, the implementation of these policies faces challenges due to several issues highlighted in the Banten RPJPD (2005–2025), including social development, economic recovery, institutional restructuring, limited resources, spatial planning, environmental sustainability, governance efficiency, and port development at local, national, and international levels [13]. Given these challenges, this study aims to analyze of sustainable tourism policy development strategies to support the creative economy in Banten Province.

2 Method

2.1 Types and sources of data

The data used in this research are primary data through FGD (Focus Group Discussion) and secondary data. Secondary data through literature, BPS Regional Planning Agency (Bappeda), Banten Regional Tourism, Arts and Culture Office. Using both primary and secondary data allows for a comprehensive, multi-faceted analysis of the research problem. Primary data provides real-time, context-specific insights, while secondary data provides a broader theoretical and comparative framework.

2.2 Data collection methods

Secondary data collection was conducted from January 2019 - December 2023. Primary data collection through FGD (Focus Group Discussion) online via Zoom, which was held on October 30, 2024. The FGD was attended by several stakeholders (Actors), including the Banten Province Tourism Office, Pandeglang Tourism Office, Lebak Tourism Office, Banten Province Ministry of Information and Communication Office, Banten Bappeda Office, Banten Regional House of Representatives, Banten Province BPS Office, local community

leaders, and academic representatives. At the initial stage of the FGD, the process of identifying strategic variables related to sustainable tourism development policy strategies to support the creative economy in the Banten region was carried out. This study uses a qualitative approach to mapping sustainable tourism development policies, scenarios, and programs to support the creative economy in Banten Province. Multipol is a multicriteria evaluation method for testing the effectiveness of various policies and actions (programs) against scenarios, including determining the framework of the best action options (programs), policies, and scenarios for the project. The implementation of the participatory approach and data analysis based on the Multipol software method are shown in Table. 1 until Table. 4 on the next page.

Table 1. Criteria list for sustainable tourism policy development strategies to support creative economy in Banten Province

No.	Short Label	Long Label	Weight	Description
1	Investment	Increasing Sustainable Tourism Business Investment to Support the Creative Economy	6	Increasing sustainable tourism business investment to support the creative economy in Banten Province
2	Marketing	Improving Tourism Visit Marketing to Support the Creative Economy	5	Improving tourism visit marketing to support the creative economy in Banten Province
3	Standards	Standardization of Sustainable Tourism Product Quality to Support the Creative Economy	4	Standardization of sustainable tourism product quality to support the creative economy in Banten Province
4	Capital	Increasing Capital Provision	5	Increasing Capital Provision in Banten Province
5	ICT	Increasing ICT Usage	5	Increasing ICT usage in Banten Province
6	Environmental Damage	Reducing Environmental Damage in Tourist Areas	5	Reducing environmental damage in tourist areas in Banten Province

Source: Primary Data through FGD, processed 2023.

Table 1 explains the criteria list, which includes the short label, long label, weight, and description. The weighting values are determined during the Focus Group Discussion (FGD) implementation. The table above also illustrates that the weightings vary; the higher the weight, the more important the criterion is considered, and vice versa.

Table 2 explains the list of program activities, accompanied by short labels, long labels, and descriptions. The descriptions detail the program activities implemented under the sustainable tourism policy development strategy to support the creative economy in Banten Province.

Table 2. action list for sustainable tourism policy development strategies to support the creative economy in Banten Province

No.	Short Label	Long Label	Description
1	Attraction	Increase the Attractiveness of Sustainable Tourism Businesses Supporting the Creative Economy	This policy emphasizes optimizing the development of sustainable tourism attractions to support the creative economy in Banten Province.
2	Business	Opening New Enterprises	This policy focuses on fostering tourism businesses, including increasing the number of tourism industry products, sales volume, business partnerships, standardization of sustainable tourism industry based on the creative economy, development of sustainable tourism potential, and promotion of sustainable tourism to support the creative economy in Banten.
3	Investor	Providing Ease of Cooperation with Investors for Ecotourism	This policy provides ease of cooperation with investors for ecotourism businesses.
4	Environment	Reducing Environmental Pollution	Reducing environmental pollution in tourism areas in Banten Province.
5	Infrastructure	Improvement of Infrastructure and Facilities for Tourism Supporting the Creative Economy, including Roads	Improving tourism infrastructure and facilities supporting the creative economy, including roads in Banten Province.
6	Technology	Utilizing Information Technology in Tourism Activities Supporting the Creative Economy	Utilizing information technology in tourism activities that support the creative economy in Banten Province.
7	Advertise	Conducting Marketing Advertising through the Internet, Social Media, etc.	Conducting marketing advertising through the internet, social media, and other platforms in Banten Province.
8	Quality	Maximizing the Production of High-Quality Products	Maximizing the production of high-quality products in Banten Province.
9	Accessible	Availability of Accessible Capital for the Community and Business Actors	Availability of accessible capital for the community and business actors in Banten Province.
10	Training	Improving the Provision of Training	Improving the provision of training in Banten Province.

Source: Primary Data through FGD, processed 2023

Table 3. Policy list for sustainable tourism policy development strategy to support the creative economy in Banten Province.

No.	Short Label	Long Label	Weight	Description
1	Licensing	Ease of Licensing for Investment in the Parekraf Sector	5	The government provides ease of licensing for investments in the Parekraf sector.
2	Network	Availability of Marketing Networks	5	Availability of sustainable tourism marketing networks to support the creative economy in Banten.
3	Improvement	Improvement of Parekraf Product Quality	5	Improvement of the quality of Parekraf products in Banten Province.
4	Social	Building Social Capital, Availability of Vocational Schools for Parekraf	5	Building social capital and availability of vocational schools for Parekraf in Banten.

Source: Primary data through FGD, processed 2023

In Table 3, it explains the list of policy types along with short labels, long labels, and weights. The description column explains several policies in the strategy for sustainable tourism policy development to support the creative economy in Banten Province.

Table 4. Scenario list for sustainable tourism policy development strategy to support the creative economy in Banten Province

No.	Short Label	Long Label	Weight	Description
1	Gov	Government-Led	6	The government determines the strategy for sustainable tourism policy development to support the creative economy in Banten Province.
2	Com	Community	4	The community plays a role in the strategy for sustainable tourism policy development to support the creative economy in Banten Province.

Source: Primary Data through FGD, processed 2023.

Table 4 above explains the short label, long label, and weight. The description column outlines the scenarios applied to the sustainable tourism development strategy in Banten Province.

2.3 Data analysis

The MULTIPOL method is used to analyze multicriteria-based policies. This study uses a sustainable tourism development policy strategy to support the creative economy in the Banten region, based on 6 criteria, 4 policies, 2 scenarios, and 10 action programs. MULTIPOL is based on extracting information from stakeholders through Focus Group Discussion (FGD). Furthermore, from the MULTIPOL analysis for each policy and the average score, a standard deviation was obtained. The average score measures the overall performance of each action (program) against the policy. The steps in the Multipol method and its illustration can be seen in Figure 1 below. The result of the policy analysis is a

decision on which scenario is most appropriate for each policy.

Criteria List

- Increase in Sustainable Tourism Investment to support the creative economy (Investment).
- Increase in Tourism Visit Marketing to support the creative economy (Marketing).
- Standardization of Sustainable Tourism Product Quality to support the creative economy (Standardization).
- Increase in Capital Provision (Capital).
- Increase in ICT Utilization (ICT).
- Reduction in Environmental Damage in Tourism (Damage).

Action List

- Enhance the Attraction of Sustainable Tourism Businesses supporting the creative economy (Attraction).
- Opening New Businesses (Business).
- Provide Cooperation Opportunities for Investors in ecotourism businesses (Investor).
- Reduction of Environmental Pollution (Environment).
- Improvement of Tourism Facilities and Infrastructure supporting the creative economy, including roads (Facilities).
- Use of Information Technology in tourism activities supporting the creative economy (Technology).
- Disseminate Marketing Advertisements on the internet, social media, and other platforms (Advertising).
- Maximize the Production of Quality Products (Quality).
- Provision of Accessible Capital for the community and business actors (Accessible).
- Increase in Training and Education Programs (Training).

Policy List

- Ease of Licensing for Investment in the Tourism and Creative Economy Sector (Licensing).
- Availability of Marketing Networks for Tourism and Creative Economy (Network).
- Improvement of Tourism and Creative Economy Products (Improvement).
- Building Social Capital and Providing Entrepreneurship Training (Social).

Scenario Description

- Gov: Government-driven
- Com: Community-driven.

Firstly, during the initial stage of the FGD, the process of identifying strategic variables related to sustainable tourism development policy strategies to support the creative economy in the Banten region was carried out. This study then applies a sustainable tourism development policy strategy to support the creative economy in the Banten region, based on 6 criteria, 4 policies, 2 scenarios, and 10 action programs. The MULTIPOL method is used to extract information from stakeholders through Focus Group Discussion (FGD). Respondents are required to fill several matrices, such as the action-to-criteria matrix, which is weighted between 0 to 20, and then the policy-to-criteria and the scenario-to-criteria matrices, which are weighted between 0 to 100. Finally, the collected data is processed using MULTIPOL software. Furthermore, from the MULTIPOL analysis for each policy and the average score, a standard deviation was obtained. The average score measures the overall performance of each action (program)

against the policy. The steps in the Multipol software method and its illustration can be seen in Figure 1 below. The result of the policy analysis is a decision on which scenario is most appropriate for each policy.

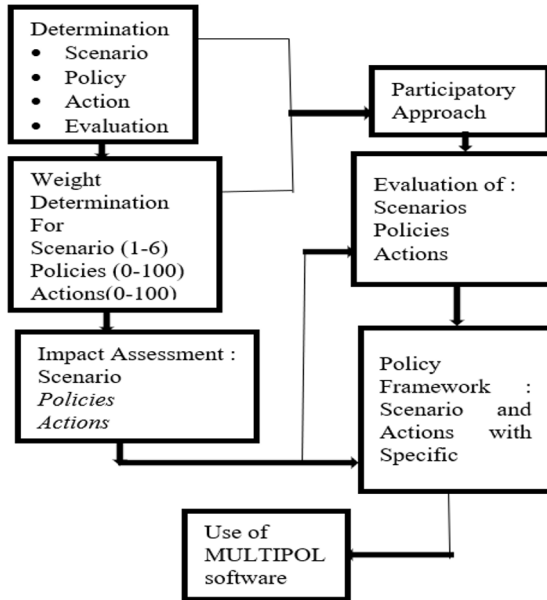


Fig. 1. Weight determination

Figure 1 above illustrates the systematics of MULTIPOL software tools according to the hierarchy of actions based on policies and scenarios. The determination of this hierarchy is based on the score for the actions component based on predetermined criteria, with score criteria from 0 to 20 and the total weight of the criteria must always sum to 100.

Based on the Strategic Plan for the Changes in the Tourism Department of Banten Province 2020—2025, several policies and programs have been set for implementation. According to the established policies, the direction of policy, strategy, and action plans for the development of a sustainable tourism model to support the creative economy in Banten Province, as sourced from the Banten Tourism Office, are as follows:

The Strategic Plan for the Changes in the Tourism Department of Banten Province 2020—2025 is a strategic plan prepared by the Tourism Department of Banten Province to develop the tourism sector in the province over a five-year period. This document outlines various policies and strategies to enhance the tourism appeal of Banten, support the local economy, and implement sustainable tourism.

Here are some of the main focuses covered in the Strategic Plan for the Changes in the Tourism Department of Banten Province 2020—2025:

- a) Vision and Mission
 - Vision: To make Banten Province a leading and sustainable tourism destination, integrated with the development of the creative economy, providing positive impacts for the community.
 - Mission: To develop an inclusive tourism sector, enhance the quality of tourism services, advance the creative industry, and preserve the environment and local culture.
- b) Tourism Infrastructure Improvement

- Strategy: Build and improve transportation infrastructure, and tourist support facilities (such as accommodations, tourist information centers, and public facilities), ensuring the comfort and safety of tourists.
- c) Development of Leading Tourist Destinations
 - Strategy: Identify and develop natural and cultural tourism destinations such as beaches, mountains, and historical sites. Additionally, eco-tourism development is also a key focus.
- d) Tourism Promotion and Marketing
 - Strategy: Utilize various digital marketing platforms and social media to promote tourism destinations in Banten, participate in international tourism exhibitions, and strengthen relationships with travel agencies and tour operators.
- e) Empowerment of Local Communities
 - Strategy: Provide training for the community to engage in the tourism sector, improve skills in tourism services, and introduce local products to be part of tourists' experiences.
- f) Sustainable Tourism
 - Strategy: Develop tourism destinations with an eco-friendly approach, educate the community and tourists on the importance of environmental preservation, and reduce negative impacts on the environment.
- g) Creative Economy Development Based on Tourism
 - Strategy: Identify creative products that can be marketed to tourists, such as arts, handicrafts, cuisine, and cultural performances. Increasing collaboration between creative industry players and the tourism sector is a key priority.
- h) Improvement of Tourism Workforce Quality
 - Strategy: Provide training and certification to tourism business operators, tour guides, and other workers to enhance their skills and professionalism.
- i) Environmental Management and Conservation
 - Strategy: Maintain environmental sustainability through responsible management, reduce the negative impacts of tourism, and involve the community in environmental conservation programs.
- j) Strengthening Partnerships
 - Strategy: Build mutually beneficial partnerships between the government, tourism industry players, and local communities in tourism management and promotion.

Stakeholders involved in this study through focus group discussions (FGD) determine the evaluation criteria and weighting related to the scenarios and policies, as well as the impact of actions, policy, and scenarios on the objectives to be achieved, as explained in Tables 5 to 7. If the required input components are processed using MULTIPOL, this aligns with the view of Fauzi [14].

Stakeholders are involved in this research through focus group discussions (FGDs) to determine evaluation criteria and weightings related to scenarios and policies, as well as the impact of actions and policy scenarios on the objectives to be achieved. If the required input components have been processed using MULTIPOL [14].

Table 5. Program filling matrix against criteria

	Investment	Marketing	Standards	Capital	ICT	Environmental Damage
Attraction	19	19	16	16	15	15
Business	19	19	18	15	18	15
Investor	20	15	15	19	15	15
Environment	18	17	20	17	15	20
Infrastructure	19	20	15	18	18	19
Technology	18	16	19	20	20	18
Advertising	18	20	17	15	15	15
Quality	17	17	17	15	17	19
Accessible	17	19	17	15	19	18
Training	19	18	17	15	19	15

Source: Primary Data through FGD, processed 2023.

In Table 5 above, there is a matrix form that evaluates actions against criteria, with values ranging from 0 to 20. The form consists of 100 rows, which are to be filled out during the Focus Group Discussion (FGD).

Table 6. Policy filling matrix against criteria

	Sum	Investment	Marketing	Standards	Capital	ICT	Environmental Damage
Licensing	100	20	15	16	15	15	19
Network	100	19	19	15	18	18	11
Improvement	100	19	18	15	19	18	11
Social	100	18	17	17	17	15	16

Source: Primary Data through FGD, processed 2023.

In Table 6 above, there is a matrix form that evaluates policy against criteria, with values ranging from 0 to 20. The form consists of 100 rows, which are to be filled out during the Focus Group Discussion (FGD).

Table 7. Scenario filling matrix against criteria

	Sum	Investment	Marketing	Standards	Capital	ICT	Environmental Damage
Gov	100	20	15	19	15	15	16
Com	100	18	18	15	15	15	19

Source: Primary Data through FGD, processed 2023.

In Table 7 above, there is a matrix form that evaluates the scenario against criteria, with values ranging from 0 to 20. The form consists of 100 rows, which are to be filled out during the Focus Group Discussion (FGD).

3 Results and discussion

3.1 Analysis of sustainable tourism policy development strategies to support the creative economy in Banten Province

In this study, the strategy for developing sustainable tourism policies to support the creative economy in Banten Province utilizes six criteria, as shown in Table 1 above. Among these

six criteria symbols are investment, marketing, standards, capital, and ICT. The study also employs an approach involving 10 programs (actions), including enhancing tourist attractions (datarik), promoting the establishment of tourism businesses to support the creative economy (usaha), increasing collaboration with investors (investor), environment, facilities, technology, advertising, quality, accessibility, and training. Policy aspects are categorized into four areas: licensing, networking, improvement, and social. Additionally, the study implements two scenarios: government-driven (Government-Driven/Gov) and community-driven (Community/Com).

The approach as a policy development strategy includes:

Program Evaluation Strategy Against Policy:

This will be discussed in the following subsection. This strategy involves evaluating programs and policies through steps such as ranking program advantages using evaluation tables based on programs and policies. According to Shafiree [15], the average score measures the overall implementation of each action against the policy, while the standard deviation indicates the sensitivity of each action to the policy. This is reinforced in MULTIPOL, where a higher position number signifies better performance or implementation of the program.

Furthermore, the proximity between programs (actions) and policies is examined through profile map analysis, connecting scores for each program (action) with the policy. Subsequently, a closeness map approach is applied to assess the proximity of programs to policies. This explanation will be further elaborated in the subsection on program evaluation against policy.

Policy Evaluation Strategy Against Scenarios:

This involves steps such as determining the ranking of policy advantages through the Policy Score Table against Scenarios. In MULTIPOL, a higher policy score against a scenario indicates a superior policy. These strategies aim to systematically assess and enhance the alignment between programs, policies, and scenarios to foster sustainable tourism development that supports the creative economy in Banten Province.

3.1.1 Evaluation of programs against policies

In Table 8 the ranking of program excellence evaluation against policy is as follows: technology, facilities, environment, accessibility, business, training, quality, attractions, advertising, and investors. This indicates that the implementation of technology in sustainable tourism development to support the creative economy in Banten is highly necessary.

In the development model of the Technopark Tourism Interest based on the quintuple helix, several groups play roles in sustainable tourism development, including the private sector, which serves as a facility provider offering technological infrastructure and capital support, enabling tourism potential to develop more efficiently, effectively, and productively. This aligns with the current study regarding the importance of technology's role. The application of technology through social media and websites, such as those utilized by the Banten Tourism Office, functions to enhance brand awareness, targeting the market towards the tourism brand identity. For instance, the Tourism Office in Lebak has the "Lebak Unique" website to promote tourism activities alongside the development of its creative economy.

The current study results are not entirely in line with the study by Shafiee [15], which suggests that tourist attractions in rural tourism are typically managed using traditional methods, with minimal use of smart technology, particularly in meeting consumer needs [15]. A major issue hindering the digitalization of tourism in rural areas of developing countries is

the inadequacy of ICT infrastructure, as well as the lack of sufficient skills among stakeholders to utilize technology related to smart tourism [16].

Table 8. Ranking of program excellence evaluation against policy

	Licensing	Network	Improvement	Social	Mean	SD	Number	Ranking
Technology	18.5	18.5	18.5	18.5	18.5	0	10	1
Infrastructure	18.2	18.2	18.2	18.2	18.2	0	9	2
Environment	18	17.6	17.6	17.6	17.7	0.2	8	3
Accessible	17.5	17.5	17.5	17.5	17.5	0	7	4
Business	17.3	17.5	17.5	17.5	17.4	0.1	6	5
Training	17.2	17.4	17.3	17.3	17.3	0.1	5	6
Quality	17.1	16.9	16.8	16.8	16.8	0.1	4	7
Attraction	16.7	16.9	16.8	16.8	16.8	0.1	3	8
Advertising	16.7	16.8	16.8	16.8	16.8	0.1	2	9
Investor	16.6	16.7	16.7	16.7	16.7	0.1	1	10

Source; Software Micmac, 2023

Thus, it can be assumed that implementing an information technology program, both directly and indirectly, enables stakeholders to meet their own needs, thereby increasing their use of smart technology (Doshmangir et al., 2022). The implementation of this program can also enhance human resources physically, intellectually, and in terms of internal and external coherence with institutions related to tourism. Furthermore, it may encourage these institutions to develop Speech-to-Text (STT) technology in rural areas [16].

The study by Maquera reinforces the current study, as it has been proven that the advancement and development of information technology can be utilized by tourism service managers as a medium to inform about premium tourism service products available in the Tanjung Lesung Special Economic Zone (KEK), particularly in Tanjung Jaya Village. Digital platforms such as e-commerce, digital marketing, social media, marketplaces, internet banking, e-wallets, and e-transactions can be used to disseminate information and promote tourism services in Tanjung Jaya Village [17]. Thus, the findings of the current study regarding the use of information technology programs in sustainable tourism activities to support the creative economy align with the study by Fitrianiingsih [17].

The second-ranking priority in the program evaluation for policy improvement is infrastructure, as policy improvements are more closely related to facilities. This means that implementing infrastructure enhancement programs, including road repairs and other supporting infrastructure for creative economy-based tourism, is crucial. The third-ranking priority is the environment, as maintaining the sustainability and cleanliness of tourist sites will serve as an added attraction. Through information technology networks, tourist destinations in Banten can be accessed by both national and international audiences. Preserving the environment to remain sustainable and beautiful can thus be categorized as sustainable tourism, which considers the continuity of natural beauty. This study aligns with previous research stating that sustainable tourism involves the development of tourism activities by balancing environmental, economic, and socio-cultural dimensions to ensure long-term sustainability.

The fourth-ranking priority in the program evaluation for policy improvement is the Accessible Capital Program, which ensures the availability of capital that can be accessed by the public and business actors in Banten Province. Facilitating access to capital creates opportunities for the establishment of new tourism-related businesses supported by the creative economy. One of the key issues in tourism development in Banten, as identified in this study, is the lack of capital among tourism and creative economy entrepreneurs. Therefore, this study is expected to encourage the government and relevant stakeholders in tourism development to provide financial support for tourism businesses, along with their creative economic activities.

The fifth-ranking priority in the program evaluation for policy improvement is the Business Development Program, which focuses on fostering tourism enterprises. This includes increasing the number of tourism industry products, sales volume, tourism business partnerships, the standardization of sustainable tourism industry enterprises based on the creative economy, the development of sustainable tourism potential, and the promotion of sustainable tourism to support the creative economy in Banten. Based on the findings of this study, many tourism and creative economy entrepreneurs have been nurtured, making them more competitive and advanced.

The sixth-ranking priority in the program evaluation for policy improvement is the Training Program, which emphasizes the need for continued training programs in sustainable tourism to support the creative economy in Banten Province. These training initiatives are essential for developing skilled and knowledgeable human resources. This aligns with previous research, which states that external knowledge, resources, and skills enhance business performance and provide opportunities for resource development [18, 19].

An example of a training program implemented in Banten is the Tour Guide Training, which was held on Monday, August 5, 2024, in Ujung Jaya Village, Pandeglang. The training aimed to empower local residents to become tour guides, ultimately increasing their income. The event was attended by 30 residents of Ujung Jaya Village and was initiated by students from Sultan Maulana Hasanuddin State Islamic University (UIN SMH) Banten as part of their community service program, in collaboration with the Pandeglang Tourism and Culture Office [20].

The seventh-ranking priority in the program evaluation for policy improvement is the high-quality product development program, which focuses on strategies for developing sustainable tourism to support the creative economy in Banten Province. This involves providing engaging attractions at tourist sites, which may include the preservation of natural beauty around the tourist locations, such as maintaining the cleanliness and aesthetics of beaches and their surroundings. Additionally, tourism product quality can be linked to cultural elements and handicrafts that contribute to the creative economy, such as offering various souvenirs for sale at tourist sites.

The eighth-ranking priority in the program evaluation for policy improvement is the Tourist Attraction Optimization Program, which focuses on maximizing the development of sustainable tourist attractions to support the creative economy in Banten Province. Enhancing tourist attractions will increase visits from both foreign and domestic tourists, thereby boosting the income of local communities around tourist destinations and contributing to the economic growth of the region. The contribution of tourism to the Gross Regional Domestic Product (GRDP) aligns with the study by [22], which found that the number of foreign tourists and hotel investments significantly contribute to the GRDP of the tourism sector in East Java Province.

The ninth-ranking priority in the program evaluation for policy improvement is the Advertising Program. This involves promoting sustainable tourism development strategies through online marketing, social media, and other digital platforms to support the creative economy in Banten Province. According to previous studies, the use of information

technology and influencers is essential for the Lebak Culture and Tourism Office in promoting its tourism activities, such as creating short promotional videos on Instagram [24].

The tenth-ranking priority in the program evaluation for policy improvement is the Investor Program, which focuses on facilitating partnerships with investors for ecotourism businesses. Although the Investor Program has a low standard deviation, the scores obtained for each policy are also relatively low, placing it at the bottom of the ranking. Previous studies have highlighted that utilizing eighty financial characteristics to assess companies with low valuation, limited leverage, and high investment demonstrates greater resilience during crises, such as the COVID-19 pandemic [25, 26].

Although this study indicates that investment in Banten remains limited, as reflected by its ranking in the evaluation, high investment contributes to economic **resilience**, particularly during crises. Therefore, greater efforts are needed from tourism stakeholders to strengthen collaboration with investors and attract more investment in this sector.

Regarding investment, on Wednesday, November 1, 2023, the Head of the Banten Investment and One-Stop Integrated Services Agency (DPMPTSP), Virgojanti, presented investment opportunities in green industries within Banten's tourism sector. This includes Pandeglang Regency, popularly known as "Sunset of Java", which has garnered significant investor attention. One of the key investment areas is the Tanjung Lesung Special Economic Zone (KEK), which has been continuously developed to this day.

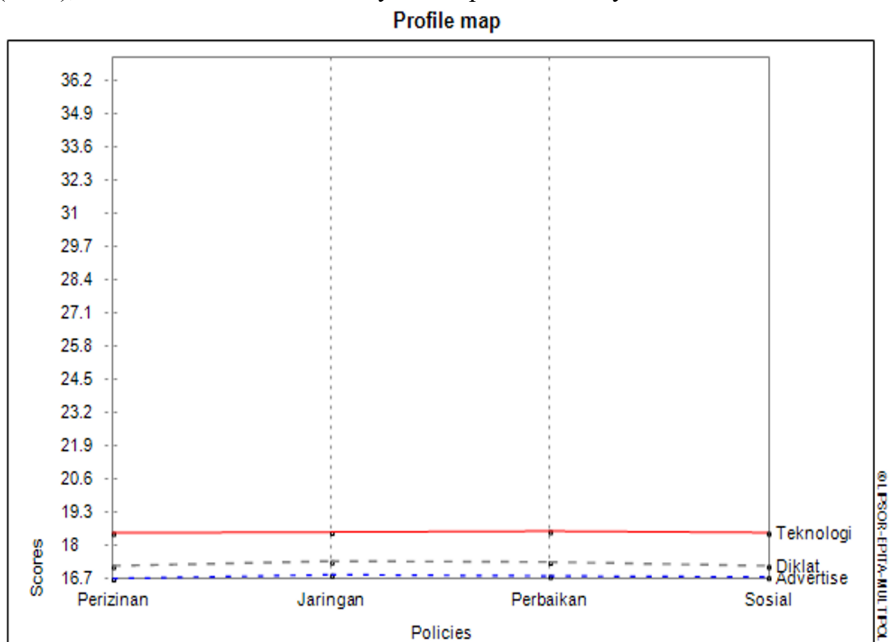


Fig. 2. Profile map of the use of information technology in tourism activities that support the creative economy. Perizinan : Licensing, Jaringan ; Network, Perbaikan ; Improvement, Sosial : Social, Teknologi : Tecnology, Diklat ; Training.

As seen in Figure 2, the *Teknologi* (Technology) method excels in every aspect such as *Perizinan* (Licensing), *Jaringan* (Network), *Perbaikan* (Improvements), and *Sosial* (Social). In developing countries, the development of digitalization has a very positive impact, especially in the context of sustainable development supported by competent human resources as the key to realizing this. resource enhancement opportunities [18, 19]. Technology is a tool to reduce costs and improve performance or services; by utilizing technology, villages will become more advanced and independent [21].

The first-ranking priority in the program evaluation for policy improvement is Technology, meaning that the use of technology in sustainable tourism development to support the creative economy in Banten is very necessary. This study also shows that the analysis of the evaluation program for policies based on Figure 2 shows that the policy of improving facilities and infrastructure and the quality of tourism products to support the creative economy is closer to the program of providing opportunities for investors to develop sustainable tourism businesses to support the creative economy with high quality supported by the use of adequate information technology accompanied by supporting infrastructure. In addition, this policy evaluation is also close to the training program, meaning that to improve the quality of sustainable tourism products to support the creative economy in Banten, an increase in training is needed, such as conducting training for all human resources involved in sustainable tourism development to support the creative economy in Banten, training programs that have been running such as training for tour guides that have been carried out until now.

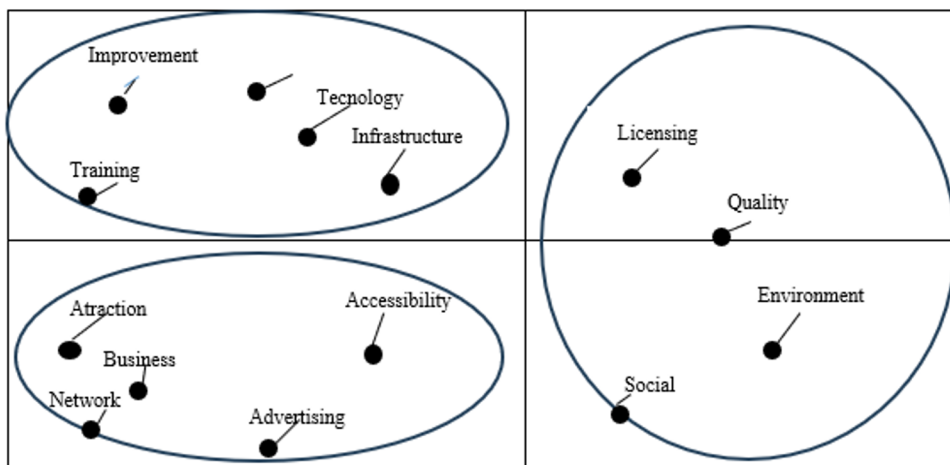


Figure 3. Program to policy proximity

As Figure 3 above shows, improvement policies are closer to investor programs, technology, infrastructure, and training. Licensing and social policies are closer to quality and environment programs. Network policies are closer to business programs, attraction, advertising, and accessibility programs. Previous studies explain that tourism generally involves social activities and cultural interactions between various stakeholders, and the mainities in the tourism sector are residents, local entrepreneurs, media, workers, government, competitors, visitors, business organizations, activists, and tourism developers [18].

Sustainable tourism development strategies that support the creative economy in Banten Province, including maximizing the manufacture of quality tourism products, reducing environmental pollution closer to social policy, namely building social capital, the availability of Parekraf vocational schools (tourism that supports the creative economy) and licensing policies, by providing easy licensing for investment in the Parekraf sector closer to the program strategy of maximizing the manufacture of quality products and opening new businesses. Furthermore, this policy plays a key role in enhancing the attractiveness of sustainable tourism businesses that support the creative economy. It encourages the establishment of new companies, increases access to capital for communities and business actors, and expands marketing efforts through online advertising, social media, and broader marketing networks.

Additionally, knowledge capital and social capital facilitate open innovation activities, including intra- and inter-organizational knowledge creation, technology acquisition, and resource sharing. These factors help businesses find partners and promote cross-organizational learning. Leveraging external knowledge, resources, and skills enhances business performance and fosters new opportunities for growth.

3.1.2 Policy evaluation of scenarios

Based on the findings of this research, it is known that, of the several scenarios applied, the licensing scenario is the first rank which is the advantage of the policy, this is by the appeal of the Head of the Pandeglang Regency Tourism and Culture Office (Disparbud) which checks the completeness of the administration of tourism actors starting from licensing, insurance and rescue teams such as Balawista [27]. Based on Table 9, the rank order of policy excellence, policy score against the scenario, the highest value is in licensing, then network, improvement and social.

Table 9. Ranking order of policy excellence

	Gov	Com	Mean	Standard Deviation	Number	Ranking
Licensing	16.8	16.8	16.8	0	4	1
Network	16.7	16.7	16.7	0	3	2
Improvements	16.7	16.6	16.6	0	2	3
Social	16.7	16.5	16.6	0.1	1	4

Figure 4 illustrates that the Government Scenario aligns more closely with infrastructure improvements and network policies. As previously mentioned, the government plays a key role in initiating policies that enhance existing facilities and infrastructure. Within this framework, the government facilitates market networks, information technology, and other essential developments. This study supports previous findings, highlighting the government's involvement in tourism development at Lalassa Beach Club. Specifically, the government's contributions include improving accessibility by repairing roads and installing tetrapods or wave breakers [26].

On the other hand, the Community Scenario is more associated with licensing and social policies, focusing on strengthening social capital and increasing the availability of vocational schools specializing in the tourism and creative economy sectors. Figure 5 indicates that social policy plays a crucial role in promoting sustainable tourism policies that support Banten Province's creative economy.

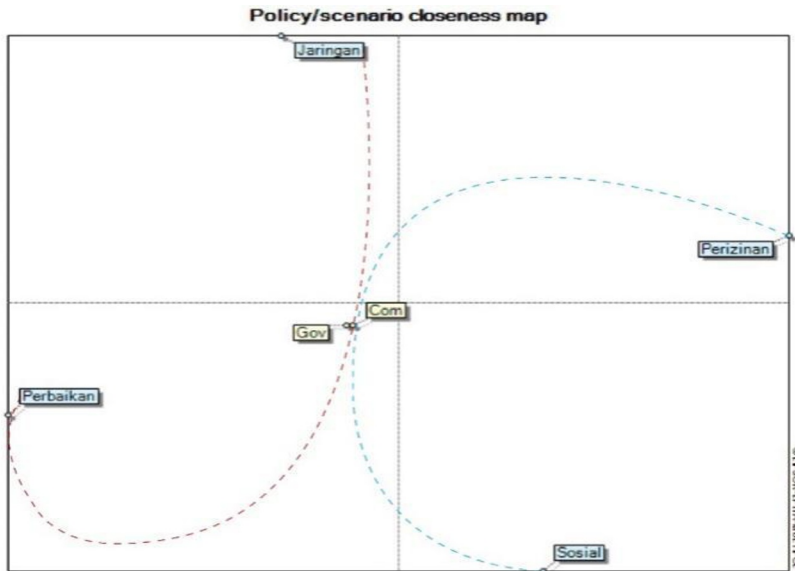


Fig. 4. Map of policy proximity to scenario

Social capital is a key driver of tourism growth, measured through collective values such as attitudes, norms, beliefs, perceptions, knowledge-sharing, and collaboration among business stakeholders. It serves as a valuable theoretical perspective, offering insights for researchers in the tourism field.

Developing social capital, particularly by expanding vocational education opportunities in tourism and the creative industry across Banten Province and its surroundings, can significantly enhance human resource quality. Aligning with previous research, this study affirms that social capital strengthens employees' capacity for teamwork, enhances their personal knowledge, and develops skills and work experience—key human resource attributes essential for creating value and addressing business challenges [18, 28, 29].

Attractions in rural tourism are usually managed using traditional methods, the use of smart technology is still minimal, especially in meeting consumer needs [16]. A major problem hindering the digitization of tourism in rural areas in developing countries is the weakness in inadequate ICT infrastructure, as well as the lack of adequate skills among stakeholders to use tourism-related technologies that use smart technologies [16].

Implementing such programs, both directly and indirectly, enables stakeholders to meet their needs while encouraging greater adoption of smart technologies [16]. Tourism service providers can leverage the rapid advancement of information technology to showcase and promote superior tourism products in the Tanjung Lesung Special Economic Zone (SEZ), particularly in Tanjung Jaya Village.

Previous studies on sustainable tourism initially focused on conventional factors such as financial, community, traditional, and environmental aspects. However, more recent research has expanded to include Information and Communication Technology (ICT) and institutional sustainability as essential elements [30]. Various references highlight the crucial role of information technology in fostering sustainable tourism and supporting the creative economy in Banten.

Knowledge capital, which consists of human, relational, and structural capital, plays a significant role in strengthening the tourism sector [18]. It represents the intangible value an organization possesses through accumulated knowledge, relationships, learned processes, and innovations, often referred to as intellectual capital. Unlike other intangible assets, knowledge capital relies on the workforce's skills and competencies.

Structural capital, a key component of social capital, includes organizational processes, databases, and infrastructure that support human capital [18, 31]. Social capital enhances employees' ability to engage in cooperative learning and develop their personal knowledge, skills, and work experience—factors essential for creating value and addressing business challenges [18, 28, 29]. Furthermore, structured capital acts as an organizational backbone, integrating databases with policies, regulations, and procedures to ensure efficient governance and timely information access [18, 32].

4 Conclusion

This study highlights the strategic development of sustainable tourism policies to support the creative economy in Banten Province through six key criteria and ten action programs. The evaluation of program effectiveness against policy priorities ranks technology as the most crucial factor, followed by infrastructure, environment, accessibility, business development, training, product quality, tourist attractions, advertising, and investment.

The findings emphasize the significant role of technology in enhancing sustainable tourism through digital platforms, smart tourism, and ICT applications. Infrastructure improvements, environmental sustainability, and accessibility also play vital roles in fostering tourism growth. Additionally, capital accessibility and business development programs are essential for empowering local entrepreneurs and expanding the tourism industry. Training initiatives further support skill enhancement, ensuring a competitive and sustainable tourism workforce.

The study suggests that a government-driven and community-driven approach is necessary to align policies with sustainable tourism goals. Implementing digital solutions, improving infrastructure, and supporting business development will enhance Banten's tourism sector, contributing to economic growth and environmental sustainability. Ultimately, this study provides a strategic framework for policymakers to strengthen sustainable tourism and the creative economy in Banten Province. The local government should simplify business licensing to encourage sustainable tourism and creative economy development. Further research is needed for more detailed policy insights.

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