

Development Strategy for Culture-Based Tourism Infrastructure on Serangan Island

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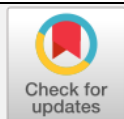
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ABSTRACT

This research analyzes the strategy for developing culture-based tourism destinations on Serangan Island. The method used was interviews with a purposive sampling approach to determine key informants. The research results show that the culture-based tourism destinations on Serangan Island are Sakenen Temple, As-Syuhada Mosque, Fisherman's Village, Marine Tourism, and Turtle Breeding. Then, it was analyzed using SWOT analysis, where the results were that the Serangan Island tourism destination had a strong internal and external position because it could maintain its existing culture. An alternative strategy that can be implemented according to the current conditions of tourism destinations is the S-O strategy, meaning that the management of tourism destinations on Serangan Island can use its strengths to attract tourists. This study concludes that Serangan Island has cultural-based tourism destinations: Sakenan Temple, Asy-Syuhada Mosque, Fisherman's Village, Turtle Conservation, and Marine Tourism. In addition, a SWOT analysis is needed to determine internal development strategies (strengths and weaknesses) and external development strategies (opportunities and challenges). Support is needed from the government and the private sector to facilitate, market, and support the surrounding community. Prohibition signs are needed to prevent environmental damage and pollution. Protection of customs, traditions, and arts and culture of the Serangan community through regional or village regulations. Better transportation access, such as piers, small bridges, or local transportation, supports visitor accessibility and comfort. Strengthening the marketing of Serangan Island as a cultural

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destination through social media and digital tourism platforms.

Keywords: Culture-Based Tourism; Infrastructure Development; Serangan Island; Sustainable Tourism; SWOT Analysis

1. Introduction

The sector that has the greatest potential to boost a country's economy is tourism. Various tourist locations with several cultures nearby can be found in various areas that attract the attention of local tourists and visitors from abroad. This is what makes tourism financing important. In implementing the development of tourist destinations on Serangan Island, the government and tourism awareness groups in Serangan Village act as facilitators in preparing tourism facilities and infrastructure in Serangan and become dynamists who provide skill development and governance so that the management of the Serangan tourist destination becomes more professional (Nugraha & Agustina, 2021).

The growth of the tourism industry has become a global phenomenon thanks to the millions of people working there. Because most work in the financial sector, tourism has several disadvantages. In addition, tourism is a more advanced form of trade and can potentially encourage general economic growth. This number occasionally increases when comparing tourism with other commodities such as gasoline, coal, and palm oil.

Tourism is one of the few new industries that can provide rapid economic progress in areas such as working hours, daily life, and advancing the production sector. For many countries, especially developing countries like Indonesia, which have vast and tourism-friendly regional potential, the tourism sector as an economic strategy has become a growth priority. Indonesia has several interesting and diverse tourism locations, including many accommodations, abundant educational resources, and the daily lives of (ethnic) communities. Apart from formulating policies, strategies for developing environmentally based sustainable tourism in tourism-supporting facilities in Badung district can be carried out by ensuring that all development follows its intended purpose to reduce negative impacts on the environment (Widiati & Permatasari, 2022).

Tourism in Indonesia is one of the economic supports that has bright prospects. However, until now, it has not shown a role that meets expectations in the development process in Indonesia. Sustainable tourism development requires comprehensive community participation from all development stages, from planning to implementation (Setijawan, 2018). Tourism as a science will grow if it is developed and maintained. Its structure and function can be studied from the history of its development, which then becomes the progress of the Indonesian nation, which has great potential. Indonesia has a lot of potential natural resources that have not been developed optimally, including the tourism sector. To support the achievement of tourism development facilities, efforts must be made to develop tourism-related products. Tourism development is all efforts and activities directed at organizing tourist objects (both natural tourism and cultural tourism), providing tourism support facilities, and promoting tourist objects (Pendit, 2006).

Serangan Island has many tourist attractions in various areas. Some of these objects have been registered with the Tourism Office. However, most are still not registered, and the number of visitors is still low because the public's perception of tourism objects is still inconsistent as a

source of income and a means of increasing people's sense of security. Serangan Island has a lot to offer, including beautiful and Instagrammable beaches. A wide variety of recreation is offered at this location, not only for adults but also for children's activities in the nearby island residential community. Serangan Island's area, originally only 101 hectares, has increased more than three times after reclamation. Several parts of the area have become tourist recreation areas, such as watersport games centers and turtle conservation.

The management of Serangan Island still needs to develop it as a natural tourist attraction by the management and the government so that it can be better known and visited by many visitors. Research needs to be carried out so that the supporting and inhibiting factors in carrying out development can be identified, as well as the efforts that can be made to develop Serangan Island as a natural tourist attraction so that later it can be used as input for the management and government related to the Serangan Island development plan.

Serangan Island, often known as "Turtle Island," is one of Indonesia's most popular tourist destinations. Serangan Island, located just south of Bali, has enormous potential to be developed into a unique and attractive tourism destination. Unification of the cultural and historical heritage of Serangan Island. Serangan Island has a rich and long cultural and historical system. This island is rich in cultural heritage and unique customs closely related to residents' daily lives.

Traditions such as turtle hunting, religious rituals, and traditional art are important aspects of Serangan Island's culture. With continued tourism activities in Bali, Serangan Island has a great opportunity to become a more attractive tourist destination. The tourism development of Serangan Island can provide significant economic benefits for the local population by opening up new job opportunities and improving the general standard of living. It is important to preserve the environment and maintain environmental connectivity to protect Serangan Island. This island is an important nesting location for sea turtle travelers who arrive on its shores. The development of tourism infrastructure must be carried out while still upholding the basic principles of environmental sustainability and sustainability. To make Serangan Island a successful tourism destination, investment in strong infrastructure is needed, including roads, transportation, and other public spaces. Good accessibility will make it easier for tourists to reach the island. Active participation of local communities in the development of culture-based tourism. Destination management, cultural preservation, economic empowerment, education, and involvement of local communities will create a sustainable positive impact.

The purpose of this study and its contribution to the study is to identify the needs of facilities and infrastructure that support cultural-based tourism activities on Serangan Island, such as transportation access, public facilities, and supporting technology. Develop appropriate strategies to build and improve infrastructure while maintaining and promoting local cultural values. Increase the attractiveness of Serangan Island tourism destinations by improving facilities and infrastructure to be more comfortable and safe and by following tourist needs while maintaining cultural and environmental sustainability. Identify ways to involve local communities in tourism development so that they gain economic benefits and continue to preserve their culture. Formulate steps to ensure that tourism facilities and infrastructure development are carried out sustainably, considering environmental, social, and cultural impacts. Examine how the development of these facilities and infrastructure can improve the local economy through job creation, increasing income for the community, and increasing regional income from the tourism sector and knowing the SWOT analysis of facilities and infrastructure for cultural-based tourism destinations on Serangan Island.

2. Literature Review

2.1. Tourism Facilities and Infrastructure

2.1.1. Facilities

Tourism facilities are everything that complements and aims to facilitate the smooth running of tourism activities (Ghani, 2017). Tourism facilities are divided into three groups (Yoeti, 2012):

1) Main Facilities (Main Tourism Superstructure)

Main tourism facilities consist of businesses highly dependent on travelers' arrival. These include (a) travel agents, (b) tour operators, (c) restaurants, (d) accommodations, (e) tourist attractions, and (f) tourist transportation.

2) Means of Supplementing Tourism (Supplementing Tourism Superstructure)

These companies or facilities provide recreational options, complementing the main tourism infrastructure and encouraging longer stays at tourist destinations. This group includes (a) sports facilities, (b) secondary tourism facilities, and (c) other amusement venues.

3) Supporting Tourism

Supporting tourism facilities include essential infrastructure that encourages tourists to stay longer at a destination and serves another function – encouraging visitors to spend more money at their destinations.

2.1.2. Infrastructure Tourism

Infrastructure consists of natural and human resources essential for tourists at travel destinations, including roads, electricity, water, telecommunications, terminals, and bridges. (Zulkurnaini et al., 2019). The infrastructure of the tourist destination is the infrastructure of the tourist destination (Warpani & Warpani, 2007). Infrastructure includes:

1) Accessibility

Accessibility is a critical component of tourism. Public transportation and other transportation services provide essential access for tourists. In tourism, accessibility also encompasses transferability – the ease of moving from one area to another. Areas with limited accessibility are less likely to attract tourists, hindering further accessibility development. In regions with tourism potential, it is essential to ensure adequate accessibility so that tourists can easily visit. Key components of adequate accessibility include: 1) Local transportation, 2) Terminal, and 3) Airport.

2) Utilities

Utility is the level of satisfaction with the benefits provided by a tourist attraction to tourists. The following are tourism utilities: 1) Electricity, 2) Clean water, 3) Drinking water supply, 4) Toilet, and 5) Prayer room.

3) Service Network

Service networks are essential for supporting the safety and well-being of tourists. These services help ensure a comfortable and secure experience at tourist destinations. Key components of the service network include:

a. Health Services

Health services are provided by tourist attractions for tourists, typically in the form of health posts or first-aid supplies.

b. Security Services

Security services are also offered to protect tourists, usually through security posts and personnel, helping to prevent criminal incidents at tourist sites.

2.2. Culture

Culture is a system formed by socially inherited behaviors that work to connect human communities with their ecological environment (Keesing, 1999). It includes the way of life of groups of people, such as forms of economic organization, settlement patterns, forms of social grouping and political organization, beliefs and religious practices, and so on. The concept of culture descends into behaviour patterns tied to certain groups, which become “Customs” or ways of life (Harris, 1997). Culture is the result of human thought, mindset, and spirit (Koentjaraningrat, 1985), which can be divided into three forms, namely:

1) The Ideal Form

This is abstract and cannot be seen or felt; it includes ideas, beliefs, values, norms, and traditions.

2) The Social System Form

This form relates to patterned human behaviors, including activities, interactions, and daily associations.

3) The Physical Culture Form

This is the tangible result of human thoughts and activities, represented in concrete forms.

Likewise, tourism is part of culture and encompasses all three forms of cultural expression:

a) Traditions and Local Wisdom

This includes the unique knowledge and practices of various tribes in Indonesia.

b) Community Structures and Traditional Activities

These involve traditional ways of life, such as ritual processions and communal practices.

c) Crafts and Arts

This includes paintings, rattan crafts, batik, and various culinary specialities, all closely tied to the region’s resources and identity.

2.2.1. Cultural Diversity

Lévi-Strauss views culture as a shared symbolic system and a cumulative creation of human thought (Descola, 2013). He sought to uncover culture’s mental principles, especially in structuring elements such as mythology, art, kinship, and language. According to him, cultural expressions are not merely random but follow an underlying mental structure shared by members of a society. While the material conditions of livelihood and economy provide a framework within which culture develops, they do not fully determine cultural expression. Instead, these conditions serve as constraints, influencing but not dictating how humans perceive and structure their world (Ingold, 2007).

3. Research Methodology

Using a qualitative approach, this research was conducted on Serangan Island, South Denpasar District, Denpasar City, Bali. The study took place from March to May 2023.

Data collection was carried out through observation and in-depth interviews. Observation is a data collection method involving the direct or indirect observation of research objects (Adi, 2021; Tanzeh, 2011). Observations focused on tourism facilities and infrastructure on Serangan Island to examine local cultural tourism destinations.

In-depth interviews were conducted to obtain comprehensive data. In-depth interviews are face-to-face interactions with informants to gather complete and in-depth information. Topics covered in the interviews included the history of Serangan Island and the strengths, weaknesses, challenges, and opportunities for tourism destinations on the island.

The study involved two key community leaders, as detailed in Table 1.

Table 1. Research Informants

No.	Name	Seks	Information
1.	I Wayan Karma, SIP.,MH.	M	Village Head
2.	Putu Ngurah Sadia	M	Community Empowerment Section

Data analysis used an interactive model involving iterative and reflective interactions between researchers and data (Masruroh & Yusuf, 2023). The stages of data analysis using this model are as follows:

- 1) Data Reduction
Simplifying the collected data by sorting relevant information and grouping similar findings. Irrelevant data is set aside to maintain analytical focus.
- 2) Data Presentation
Presenting data in an organized format, such as interview summaries, to aid understanding.
- 3) Drawing Conclusions and Verification
Drawing preliminary conclusions based on presented data, verified through additional data or re-evaluation. This conclusion identifies key findings related to tourism infrastructure on Serangan Island.

The interview results were further reviewed using a SWOT analysis and presented in a descriptive format.

Qualitative descriptive analysis was used to gain a clear and objective understanding of the strategy for developing facilities and infrastructure for culture-based tourism destinations on Serangan Island. The study specifically examined existing obstacles and development strategies. SWOT analysis was applied to determine strategic alternatives by:

- 1) Identifying the strengths and weaknesses (internal factors) and the opportunities and threats (external factors) in the Serangan Island tourism destination.
- 2) Conducting a SWOT analysis by categorizing internal factors (strengths and weaknesses) and external factors (opportunities and threats).
- 3) The results are summarized in the tables of IFAS (Internal Factor Analysis Summary) and EFAS (External Factor Analysis Summary) (Rangkuti, 2017).

4. Results and Discussion

4.1. Cultural Facilities and Infrastructure on Serangan Island

Serangan is a sub-district and island in the South Denpasar District, Denpasar City, Bali Province, Indonesia. This island, located 500 meters south of the city center, has a maximum length of 2.9 km and a width of 1 km, an area of 4.81 km². Serangan Island was just a remote island separated by the ocean from the main plain of Bali. At that time, Serangan Island could only be reached by sea by taking a *Jukung* or outrigger boat from Tanjung Benoa, Sanur, and Suwung, and from Denpasar, which took 1 hour. Serangan Island is more popular as a prayer destination for Hindus at Sakenan Temple, but now this island is developing rapidly with many recreational areas and tourist attractions provided. There is even a speed boat pier, so this island has become quite a popular tour destination in Bali. In contrast to social factors such as culture, environment, existence, accessibility, compensation, and desire to obtain education and training, economic factors are the main factors influencing how the Serangan community participates in the project (Sugiyarto & Amaruli, 2018). The most effective way to increase the number of tourists abroad is to build and maintain existing tourism infrastructure through innovation by combining cultural elements with existing and undeveloped tourism infrastructure (Ghani, 2017).

Tourism development on Serangan Island cannot be separated from easy access to the island now because, after reclamation, the island can be reached easily by land route, a bridge, and a permanent road connecting Serangan Island and Bali Island. Motorized vehicles, be it motorbikes, cars, or even tourist buses, can reach it easily, and it only takes 15 minutes to drive from Denpasar city center.

According to an interview with Mr. Karma, the Village Head of Serangan, Serangan Village is located in South Denpasar District and covers an area of 481 hectares. The village is divided into two areas: one belonging to Bali Turtle Island Development (BTID) and the other to Serangan Traditional Village. Regarding regional development policy, Serangan Village, or Serangan Island, is designated as a strategic area. This designation includes several strategic roles: it is part of the Kawasan Strategis Nasional (KSN), or National Strategic Area, of the Sarbagita Urban Area, as well as the Kawasan Strategis Pariwisata Nasional (KSPN), or National Tourism Strategic Area, encompassing Kuta, Sanur, Nusa Dua, and surrounding areas. The Sanur Tourism Strategic Area is also recognized as part of the Provincial Strategic Area. Finally, Serangan Island is designated as a Denpasar City Strategic Area, holding significant economic importance for the city and the region. (Interview, March 24, 2023).

The location of Serangan Island is also strategic because it is close to tourism centers in the South Bali region and Ngurah Rai Airport, so it is easy to reach. Serangan Island in Denpasar has a calm natural atmosphere, the natural beauty of the sea, and its friendly people, which are special attractions to complete the list of tourist attractions in Bali. This island is widely known for its turtles and is connected to Bali Island via a bridge. On this island, there is Sakenan Temple, one of the six holiest temples in Bali.

4.1.1. Sakenan Temple

Sakenan Temple is part of the thousands of temples in Bali. It is located in the village of Serangan, South Denpasar sub-district. Serangan used to be a separate island that could only be accessed by sea, but after undergoing reclamation, this area is very easy to visit by land. Sakenan Temple itself is a heavenly temple of the universe. According to Usana Bali's palm print, it was built by Mpu Kuturan (Rajakretha). Historically, the temple was built as an expression of gratitude from a group of people who felt sad because of the beauty of Serangan

Island. The surrounding Balinese people also prayed even though they could only be accessed by sea using fishing boats. This sea transportation has gradually started to be abandoned because vehicles such as cars and large buses can easily access Sakenan Temple. The proposed plan will be more effective when considering local and environmental wisdom.

For example, the history depicted at Pura Dalem Sakenan illustrates the temple's cultural significance (Tejawati & Purawati, 2022). Based on inscriptions from Sading Village, Mengwi District, Badung, it is estimated that Sakenan Temple was constructed during the reign of King Sri Masula Masuli, who ruled Bali beginning in Isaka 1,100 (1178 AD) for a period of 77 years. When Dang Hyang Nirartha was on a spiritual journey around Bali, he stopped at Serangan Island, admiring its beauty. He eventually built a holy site called Pura Sakenan on the island's western side (Tejawati & Purawati, 2022).

The name Sakenan is believed to derive from the word Cakya, meaning "to unite the mind immediately." This small, tranquil place, separated by the sea, is conducive to spiritual unity and connection with the Creator. Pujawali (temple festival) at Sakenan Temple occurs every 210 days, coinciding with the Kuningan Festival on Saturday, Kliwon Kuningan (Tejawati & Purawati, 2022).

During Kuningan Day prayers, Hindu devotees visit three temples on Serangan Island: Susunan Wadon (about 500 meters east of the main temple), Susunan Agung, and Sakenan Temple along the beach on the west bank. This trio of temples is considered a symbolic journey, representing Purusa, Pradhana, and Lingga.

Sakenan Temple is also called Samudra Kretih, a component of Sad Kretih, symbolizing a sacred place for worshipping Ida Hyang Baruna, the sea deity. This aspect of worship seeks to maintain global safety, purify all *bhuta kala* (negative energies) and humanity, and eliminate diseases and obstacles (Tejawati & Purawati, 2022).

4.1.2. Ash-Syuhada Mosque

According to Mansyur, this mosque was built by residents of Bugis Village with help from the King of Badung at that time, Cokorda Ngurah Sakti, who was Hindu. This mosque is historical evidence that harmony between Islam and Balinese Hinduism has existed for a long time.

This mosque is in the middle of the village. Not only is this mosque the center of religious activities for local Muslims, but it is also the first destination for people who want to learn about multiculturalism on this island. Some signs of the age of the only mosque in Serangan can be seen in the ancient Al-Quran, the wooden pillars in the mosque, and the high pulpit. This mosque is one of the oldest mosques in Bali. The management of the Great Islamic Center Mosque in Rokan Hulu Regency has not yet optimized management based on the management of religious tourist attractions, and the factors that support the attraction of religious tourism have also not been maximized (Abduh, 2021). Some visitors interpret a visit to the grand mosque as a tourist destination (Adveni et al., 2023).

Harmony does occur, at least to the naked eye. Balinese Hindus side by side with Muslims in Bugis village, Serangan. They are not separated even though they are in different villages geographically. During Eid al-Fitr, for example, Hindus will visit Muslim homes. Likewise, during Galungan, a Hindu holiday, Muslims will visit the homes of residents celebrating. They also deliver food to each other during the holiday, which in Balinese is called *jootan*.

4.1.3. Fisherman's Village

Serangan is a small island located 5 km south of Denpasar, Bali. With a maximum length of 2.9 km, this island is administratively part of Denpasar City, Bali. In the past, during their long journeys from Makassar, sailors often stopped at Serangan to find drinking water. After drinking there, they felt a sense of *sira angen* (a fondness or nostalgia) for Serangan. As a result, many Bugis sailors decided to settle there, forming a settlement known as Kampung Bugis, which continues to thrive today. For generations, the people of Serangan Island have relied on the sea as a source of livelihood, primarily working as fishermen. Typical features of fishing villages on Serangan Island include areas for ships to dock, stopping points for vessels, and a fish auction market (TPI - *Tempat Pelelangan Ikan*) to facilitate buying and selling within the fishing community (Hakim et al., 2019).

Reclamation has caused the coastal area to decrease drastically, so many residents have changed professions, including those looking for seaweed and starting businesses in the marine tourism sector. Residents on Serangan Island, besides the native Balinese, also have immigrants from various tribes, including immigrants from the Bugis tribe.

4.1.4. Sea Turtle Breeding

An interesting thing to do while on holiday on Serangan Island is to visit a turtle conservation site. The existence of turtles needs to be protected. Therefore, there is a conservation center on Serangan Island. High use of turtles by humans causes turtle populations to decline (Harnino et al., 2021). The design of the Turtle Breeding Ecotourism Area in Sebus Village, Sambas Regency, uses the concept of "Sea Turtle Breeding Integrated Area" in which there are three functions, namely a tourism function, an educational function, and a conservation function which focuses on breeding (Alfinda, 2017).

Three turtles are in captivity here: green, hawksbill, and olive ridley. At this conservation center, activities include relocating turtle eggs on the beach and taking them to a breeding place to be hatched. Then, after hatching, the turtles in the form of hatchlings will be returned to their habitat.

4.1.5. Marine Tourism

There is a natural environment on Serangan Island, which has become a place for exploring various adventure activities and hobbies such as photography, airplane modeling, fishing, cycling, and trekking. Now, for easy access from mainland Bali to Serangan Island, Serangan is an ecotourism spot that emphasizes the adventurous aspect of this unique and charming coastal marine community. Naturally, this area has the potential for promising marine attractions and has considerable opportunities to be developed and managed optimally to realize further development. It is necessary to explore the potential and development strategies at Crystal Bay Beach, Sakti Village, Nusa Penida District, and Klungkung Regency (Sastrawan & Sunarta, 2014).

The fish pond location only takes five minutes by fast boat. Swimming with sharks attracts foreign and usually tourists, through their agents book well in advance. Swimming with sharks has been done to prioritize tourist safety and guarantee insurance coverage of up to 1.2 billion. Not only swimming with sharks, tourists can also feed the animals. Of course, the presence of this *bahawi* can increase the number of tourist visitors visiting Serangan Island.

From the results of the interview with Mr Ngurah, who is an employee at the empowerment section of the sub-district office, Serangan Sub-district has tourist attractions

such as Sakenan Temple, Asy-syuhada Mosque, Fishermen's Village, Turtle Hatchery, and Marine Tourism which are cultural heritages since ancient times (Interview, March 26, 2023).

4.2. SWOT Analysis

After identifying the internal strategic factors for the facilities and infrastructure of culture-based tourism destinations on Serangan Island, an IFAS (Internal Factor Analysis Summary) table was compiled to outline these factors within a Strengths and Weaknesses framework. The internal factors were derived from questionnaires on strengths and weaknesses and interviews with the Village Head of Serangan Island. **Table 2** below shows the calculation of internal strategic factors for facilities and infrastructure at culture-based tourism destinations on Serangan Island.

Table 2. Results of Calculation of Internal Strategic Factors/IFAS (Internal Factor Analysis Summary)

No.	Internal Strategy Factors	Weight	Rating	Score (Weight x Rating)
Strengths				
1	Serangan Island has cultural heritage sites such as Sakenan Temple, As-Syuhada Mosque, Marine Tourism, and Turtle Park Serangan.	0.25	4	1
2	Serangan Island is easily accessible from the main road, making it a convenient destination for local and international tourists	0.20	4	0.8
3	Cultural infrastructure supports the local economy by boosting cultural tourism and supporting small and medium businesses related to crafts	0.12	3	0.36
4	Cultural infrastructure serves as a resource for knowledge and research on Balinese culture, attracting academics and researchers	0.09	3	0.27
Total Strength Score		0.66		2.43
Weakness				
1	Cultural infrastructure requires intensive maintenance and restoration, which can be costly	0.11	2	0.22
2	Cultural sites such as those on Serangan Island are sometimes not promoted effectively, hindering cultural tourism growth	0.10	2	0.20
3	The lack of modern facilities, such as museums or cultural centers, limits the visitor experience	0.08	1	0.08

No.	Internal Strategy Factors	Weight	Rating	Score (Weight x Rating)
4	Low public awareness regarding environmental cleanliness	0.05	1	0.05
Total Weakness Score		0.34		0.55
Overall Total Score		1.00		2.98

Source: Processed Data, 2023

Based on the table above, the weights and ratings of internal strategic factors for the infrastructure and facilities of culture-based tourism destinations on Serangan Island can be observed. The weighting is applied to ensure these factors contribute effectively to strategic impact. The weights for strategic factors are calculated using the formula (weight = mx/mt), where mx represents the mean of factor x and mt represents the mean of total internal strategic factors.

The purpose of the rating is to provide a scale from 4 to 1, based on each factor's influence on the strategy for developing infrastructure and facilities for culture-based tourism destinations on Serangan Island. The weighted score is then calculated to obtain a total score, reflecting the cumulative impact of internal strategic factors on infrastructure development.

Table 3. Results of Calculation of External Strategic Factors/EFAS (External Factor Analysis Summary)

No.	External Strategic Factors	Weight	Rating	Score (Weight x Rating)
Opportunity				
1	With better promotion and investment in cultural facilities, Serangan Island can attract more tourists	0.20	4	0.8
2	Cultural infrastructure can support the development of local crafts and cultural products that can be sold to tourists	0.18	4	0.72
3	Opportunities for collaboration with local artists and cultural communities to enrich the tourist experience	0.15		
4	Cultural infrastructure can play a role in preserving Bali's important cultural heritage	0.13	3	0.39
Total Opportunity Score		0.66		1.91
Threats				
1	Serangan Island must compete with other cultural destinations in Bali and globally	0.12	2	0.24

No.	External Strategic Factors	Weight	Rating	Score (Weight x Rating)
2	Social and economic changes may alter traditional culture, posing risks to cultural heritage	0.09	2	0.18
3	Serangan Island is vulnerable to natural disasters such as earthquakes and coastal erosion, which can damage cultural facilities	0.07	1	0.07
4	Changes in government regulations and policies could affect investment and management of cultural facilities	0.06	1	0.06
Total Threats Score		0.34		0.55
Overall Total Score		1.00		2.46

Source: Processed Data, 2023

One strategy to maximize strengths and minimize weaknesses is through SWOT analysis. SWOT analysis involves the systematic identification of various factors to inform policy formulation. Based on the calculations conducted through SWOT analysis, the final values for strengths, weaknesses, opportunities, and threats are obtained, as shown in the following table:

Table 4. Recapitulation of Calculation Results for Strengths, Weaknesses, Opportunities, and Threats

No.	Description	Value
1	Internal <ul style="list-style-type: none"> • Strength • Weakness 	2,43 0,55
2	Eksternal <ul style="list-style-type: none"> • Opportunity • Threat 	1,91 0,55

Source: Processed Data, 2023

Based on the SWOT analysis above, a comprehensive strategy can be planned. The main strategic approach should focus on maximizing opportunities, anticipating and mitigating threats, leveraging strengths as foundational assets, and minimizing or eliminating remaining weaknesses.

The results indicate that the development of infrastructure and facilities for culture-based tourism destinations on Serangan Island shows dominant strengths compared to weaknesses and greater opportunities than threats, with the following values:

- Strengths - Weaknesses (internal factors): $2.43 - 0.55 = 1.88$
- Opportunities - Threats (external factors): $1.91 - 0.55 = 1.36$

When these values are applied to the Grand Strategy matrix, it shows that infrastructure development for culture-based tourism destinations on Serangan Island is positioned within the Growth Strategy quadrant, emphasizing optimal use of the strengths and opportunities available.

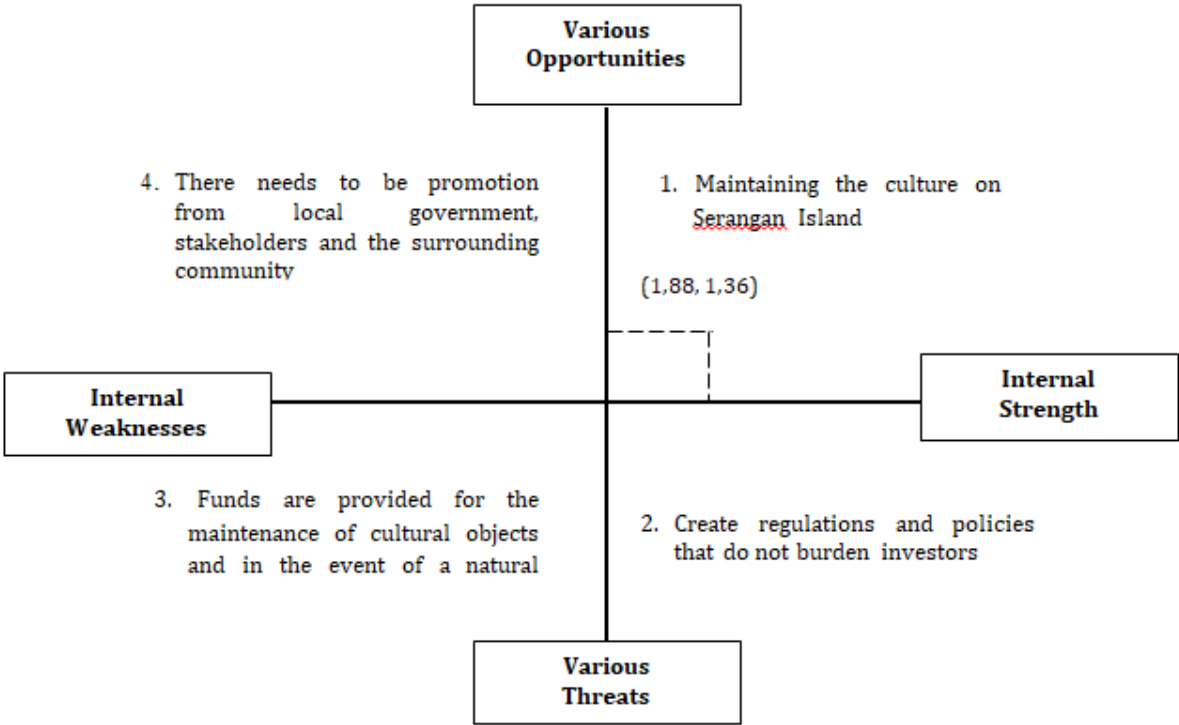


Figure 1. Strategy for maintaining existing culture on Serangan Island

Based on Figure 1, the cut point at coordinates (1.48, 1.36) suggests that a strategy leveraging strengths and opportunities can be implemented to preserve the existing culture on Serangan Island.

The SWOT matrix provides a clear overview of the strengths, weaknesses, opportunities, and threats influencing infrastructure and facilities development for culture-based tourism destinations on Serangan Island. A SWOT analysis, as conducted in the case of agrotourism in Pelaga Village, Petang District, Badung Regency (Sari et al., 2020), illustrates the combination strategies of S-O (Strengths-Opportunities), S-T (Strengths-Threats), W-O (Weaknesses-Opportunities), and W-T (Weaknesses-Threats) (Rangkuti, 2017). The SWOT analysis results give insight into the potential development strategies for cultural tourism infrastructure on Serangan Island.

Having identified the strengths, weaknesses, opportunities, and threats associated with infrastructure development for culture-based tourism on Serangan Island, alternative strategies can be formulated using the SWOT matrix. The SWOT matrix for this development can be seen in Table 5.

Table 5. SWOT Matrix Analysis

SWOT Factors	Details	Strategies
Strengths	<ul style="list-style-type: none"> Serangan Island has cultural heritage sites, including Sakenan Temple, As-Syuhada Mosque, Fisherman's Village, Marine Tourism, and Turtle Park. 	S-O Strategies (Strengths-Opportunities) <ul style="list-style-type: none"> Preserve the cultural heritage on Serangan Island. Enhance the well-being of the local community.
	<ul style="list-style-type: none"> Easily accessible from the main road, making it convenient for local and international tourists. 	S-T Strategies (Strengths-Threats) <ul style="list-style-type: none"> Establish regulations and policies favorable to investors. Attract more academic research on cultural heritage.
	<ul style="list-style-type: none"> Cultural infrastructure supports the local economy by fostering cultural tourism and supporting SMEs in crafts. 	
	<ul style="list-style-type: none"> Cultural infrastructure is a knowledge and research resource on Balinese culture that attracts scholars. 	
Weaknesses	<ul style="list-style-type: none"> Cultural infrastructure requires intensive maintenance and restoration, which can be costly. 	W-O Strategies (Weaknesses-Opportunities) <ul style="list-style-type: none"> Promote cultural sites with support from local government, stakeholders, and the community. Increase public awareness to maintain environmental cleanliness.
	<ul style="list-style-type: none"> Some cultural locations are not promoted effectively, which can limit tourism growth. 	W-T Strategies (Weaknesses-Threats) <ul style="list-style-type: none"> Allocate funds for cultural object maintenance and disaster recovery. Develop modern facilities.
	<ul style="list-style-type: none"> Limited modern facilities, such as museums or cultural centers, restrict visitor experiences. 	
	<ul style="list-style-type: none"> Low public awareness 	

SWOT Factors	Details	Strategies
	about maintaining environmental cleanliness.	
Opportunities	▪ Improved promotion and investment in cultural facilities could attract more cultural tourists.	
	▪ Cultural infrastructure supports the growth of local crafts and products for tourism.	
	▪ Opportunities exist for collaborations with local artists and cultural communities to enrich visitor experiences.	
	▪ Cultural infrastructure plays a role in preserving Bali's significant cultural heritage.	
Threats	▪ Serangan Island competes with other cultural destinations in Bali and globally.	
	▪ Social and economic shifts may impact traditional culture, posing a risk to cultural heritage.	
	▪ The island is vulnerable to natural disasters like earthquakes and coastal erosion, which could damage infrastructure.	
	▪ Government policy changes may impact investment and management of cultural infrastructure.	

Source: Processed Data, 2023

The strategy for developing infrastructure for culture-based tourism on Serangan Island includes preserving the existing culture, improving access from major roads, and increasing promotion and investment in cultural facilities. By enhancing strengths and opportunities while minimizing weaknesses and mitigating threats, supported by implementing suitable

development strategies, the cultural tourism infrastructure on Serangan Island in South Denpasar District, Denpasar City, can become competitive with other tourist destinations within and beyond Bali.

4.3. Development Strategy on Serangan Island Related to Infrastructure for Cultural-Based Tourism Destinations

4.3.1. Internal Development Strategy (Strengths and Weaknesses)

Cultural values and customs that are increasingly being pushed aside by the development of modernization today also trigger the desire of the community to try to preserve the cultural potential that exists on Serangan Island. The local culture may fade or disappear without maximum community participation in fortifying its cultural values. The pattern of community life is culture, so what can be defined as cultural products is in the form of food and drink, clothing, ways of believing, forms of houses, forms of community structures, and what is usually interpreted simply as handicrafts whose raw materials come from the environment in which the community lives. The Serangan community needs a platform or means to express its identity as a group with a noble and honorable culture comparable to other communities in Bali. So far, the cultural heritage of Serangan Island has not been effectively promoted. The most well-known aspect of Serangan's customs and culture is Sakenan Temple. This famous temple attracts numerous worshippers (*pemedek*) who come from all over Bali to visit (*tangkil*) during its holy days (*rahinan*). However, other cultural elements, such as traditional dance, drama, and related arts, have not yet become prominent icons that showcase the unique identity of the Serangan community.

Public awareness that the environment is a source of life also encourages them to try to maintain and preserve their environment. Without the participation of local communities on an ongoing basis, it will not be easy to realize sustainable environmental conservation. The environment of Serangan Island, consisting of land, water, sea, mangrove forests, flora, and fauna, must be maintained forever for the present and future generations. The Serangan community is aware of the environmental potential in their area that has not been explored optimally, so the desire to introduce and market environmental potential consisting of turtle tourism, which, in addition to being used as a tourist attraction in the festival activities, is also introduced to life and its habitat through educational seminars. There is also a mangrove forest, which is covered by a winding boat path in the middle of the mangrove forest.

Furthermore, there is a coral reef habitat, which is one of the icons of Serangan Island. Activities that can be followed are diving to enjoy the expanse of coral reefs and planting coral reefs whose materials have been prepared by a group of fishermen. Then, tourists will be taken to the middle of the sea to plant in the coral reef habitat area. Ornamental fish are also one form of marine tourism development on Serangan Island. The large potential for ornamental fish in the waters of Serangan Island allows groups of fishermen to explore by selling ornamental fish. So fishermen do not only hunt fish for consumption but also hunt ornamental fish that can be sold at quite high prices.

The potential for waves in the eastern area of Serangan Island for some foreign tourists is already well known for surfing activities. The Serangan community, especially the youth group, can utilize this potential to become tourist surfing guides. The waves are large enough or strong enough to be exploited by surfers. Seafood for consumption that has its characteristics, such as fish, shrimp, vegetables from seaweed (*bulung*), crackers from fish skin, crackers from small shells (*klejat*), can also be a form of potential raw materials from the surrounding environment, the community, especially the fishermen group, plays a very large role in preparing these raw

materials. Increasing the role of women through the development of productive economic enterprises is one of the efforts to empower women to utilize fishery resources, which has implications for increasing the income of fishermen's households. The panoramic beauty of the sea (sunrise) on the east side of Serangan Island is one of the potential for tourists to enjoy the moment in the morning. What is needed is only a location or place that is representative enough for tourists to enjoy it comfortably. The local community and related agencies must prepare for this. These potentials can contribute economically, socially, and environmentally to the community's quality of life. Therefore, they are encouraged to develop and promote potential to be recognized and have a selling value. The desire to introduce the natural and environmental potential of Serangan Island.

The general middle to lower economic conditions encourage a sense of boredom or motivation for people to have the intention and try to change, both in terms of mindset and real efforts they want to make. Post-coastal reclamation has had positive and negative impacts on the Serangan community. One of the positive impacts is facilitating transportation routes in and out of Serangan Island, and one of the negative impacts is that residents lose their jobs as traditional fishermen. The Serangan community can market their merchandise either from fishing or local handicrafts. In this case, there is a slight shift in the pattern of earning a living, which previously prioritized the results of fishing, namely fish and other marine products, now shifting towards a small and medium industry pattern in the form of processing these marine products so that they can be designed according to market desires, although not completely changed. The pattern of life at sea or as the majority of the Serangan community still carries out a fisherman, but with the form of accessibility progress such as opening new roads, paving roads, making connecting bridges, and building other infrastructure, the opportunity to stimulate or develop the economy supported by good accessibility and transportation can be realized more quickly.

4.3.2. External Development Strategy (Opportunities and Challenges)

The Denpasar City Government should do two things in promotional activities. The first is to organize events or exhibitions actively, be it crafts, culinary competitions, or cultural tourism activities that are held annually based on the event calendar that has been created. The second is to follow and participate in national and international standard events actively. In these activities, the entire Serangan community displays various variations of superior products and tourism packages to tourists (Parma, 2013).

If inventoried, Serangan Island has a rich variety of cultural products in the form of art. The Serangan Island community practices the *ngintar* tradition, a ritual performed at various *pura* (temples) across the island. The community is eager to revive and promote the *ngintar* tradition. Additionally, the Rodat dance tradition is performed by the Bugis ethnic group residing on Serangan Island. This dance is primarily showcased during Islamic holidays or community celebrations.

The opportunity to display various cultural products in the form of art performances and crafts can allow the Serangan community to increasingly show their existence as part of the Balinese people with a noble culture. In addition, there is an increasing frequency of various art forms being displayed. Also, no less important, the older generation can pass on artistic skills and the ability to make crafts to the younger generation.

The role of the craftsmen group on Serangan Island is one of the roles that can develop tourism on Serangan Island because the attraction of the crafts made by the craftsmen is very good and unique for tourists, such as sea shell ornaments in the form of bracelets, rings,

necklaces, earrings, and statues. Craftsmen can make various types of products that are attractive to tourists, such as Endek Cloth Weaving Craft, Tedung, Prada Bludru, Lontek, Gambelan Bali, and Topeng Bali Craft (Farhaeni et al., 2024). The handicrafts on Serangan Island are made and designed directly by the craftsmen there, starting from the manufacture of basic materials design concepts, and the manufacturing process is purely from the crafts of the craftsmen on Serangan Island. From the existing opportunities, there are also threats on Serangan Island, including Serangan Island, which must compete with other cultural destinations in Bali and around the world. In Bali, there are famous tourist attractions, including Sanur, Kuta, and Nusa Dua, which are close to Serangan Island. Social and economic changes can change traditional cultures, threatening the cultural heritage of fishermen who used to work as fishermen. Now, the community has turned to traders. Serangan Island is vulnerable to natural disasters such as earthquakes and coastal erosion, which can damage cultural infrastructure on the coast, making it prone to natural disasters. Changes in government regulations and policies can affect investment and management of cultural infrastructure.

5. Conclusion

The cultural infrastructure on Serangan Island includes (1) Sakenan Temple, part of the thousands of temples in Bali. It is located in the village of Serangan, South Denpasar sub-district. Serangan used to be a separate island that could only be accessed by sea, but after undergoing reclamation, this area is very easy to visit by land. (2) As-Syuhada Mosque, not only is it the center of religious activities for local Muslims, this mosque is also the first destination for people who want to learn about multiculturalism on this island; (3) Fishermen's Village, the people on Serangan Island have for generations used the sea as their livelihood, namely as fishermen; (4) Turtle Breeding, three types of turtles are kept here, namely green, hawksbill and olive ridley turtles; (5) Marine Tourism, an ecotourism place that emphasizes the adventurous aspects of unique and charming coastal marine communities.

The tourism destination of Serangan Island has a strong internal and external position because it can maintain its existing culture. An alternative strategy that can be implemented according to the current conditions of tourism destinations is the S-O strategy, meaning that the management of tourism destinations on Serangan Island can use its strengths to attract tourists. The strategy that can be implemented is adding and expanding photo spots with cultural backgrounds and their superior culture. Apart from that, support from the government helps promote culture-based tourism destinations on Serangan Island.

To achieve a sustainable, culture-based tourism destination as envisioned by tourism destination managers on Serangan Island, support from the government, especially the regional government and the private sector, is needed to help facilitate and market it, along with the support of the surrounding community. Prohibitive signs are needed to prevent environmental damage and pollution, such as "Do not throw rubbish here," "Keep the environment clean and healthy," and so on. Development of culture-based tourism destinations in addition to employing the surrounding community. Protection of customs, traditions, and cultural arts of the Serangan community through regional or village regulations. Better transportation access, such as piers, small bridges, or local transportation, supports visitor accessibility and comfort. Strengthening the marketing of Serangan Island as a cultural destination through social media and digital tourism platforms.

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7. Declaration of Conflicting Interests

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