

Identifying the Potential of Cultural Events as A Reinforcer of Tourism Identity on Pulau Sibandang

Nukeu Novia Andriani S, Aji Prasetya Hadi, Jihan Fadhila

Affiliation

Politeknik Wilmar Bisnis Indonesia

Corresponden

Nukeu Novia Andriani S, Politeknik Wilmar Bisnis Indonesia, Laut Dendang, Jl. Warakauri, Kec. Percut Sei Tuan, Kabupaten Deli Serdang, Sumatera Utara,

Abstract

Tourism destination development is a crucial program in supporting government efforts to strengthen the tourism sector. In addition to climate and scenery, which serve as primary assets, maximizing cultural and historical attributes, as well as organizing special events, is essential for destination development. Pulau Sibandang, with its unique geological structure and landscape, represents natural heritage and the geological evolution of the Toba eruption, along with its tangible and intangible cultural diversity. Strengthening the identity of the destination is key, as based on the Tourist Area Life Cycle (TALC) model, Pulau Sibandang is still in the exploration phase of tourism development. This early phase involves natural and cultural attractions that have yet to be fully maximized. Cultural event organization can be a powerful tool to attract tourists and build the destination's reputation. This study employs the ADO-ODTWA (Analisis Operasi Objek dan Daya Tarik Wisata Alam) method to analyze the operational aspects of natural tourism attractions. The findings reveal that, while Pulau Sibandang has significant cultural and natural attractions, there are areas needing improvement, particularly accommodation and marketing. Recommendations include integrating community participation in event planning and enhancing infrastructure to better support tourism. The study identifies the potential for cultural event-based festivals and provides a prototype design for such events in Pulau Sibandang, Muara District, North Tapanuli Regency.

Keywords: *tourist attraction, cultural event, community-based, destination identity*

Informasi Artikel:

Submitted: 14-09-2024 | Revised: 28-05-2025 | Accepted: 04-06-2025



Copyright © 2024 by the author(s). This article is published by Universitas Gadjah Mada, Indonesia under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate, and create derivative works of this article (for both commercial and noncommercial purposes), subject to full attribution to the original publication and author(s). The full terms of this license may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>

Introduction

Lake Toba is the largest volcanic lake inhabited by communities with diverse cultures. The people in the Lake Toba region consist of various ethnic groups such as the Toba, Karo, Simalungun, and Pakpak. Administratively, there are eight regencies surrounding the Lake Toba area. The government of North Sumatra has designated the regions surrounding Lake Toba as a special economic zone for tourism, making it a crucial backbone of Indonesia's tourism economy.

Developing tourism destinations is an important program to support the government's initiative in building the tourism sector. Apart from the main assets such as climate and scenery, it is also essential to maximize cultural and historical elements, as well as to organize special events to act as key attractions in tourism destination development.

North Tapanuli Regency, located in the administrative region of North Sumatra Province, has potential and resources that can be developed to support the local autonomy program in the tourism sector, thus positioning it as a region with high tourism potential.

The North Tapanuli Regency Government issued Regional Regulation No. 02 of 2020 concerning the Master Plan for Regional Tourism Development of North Tapanuli Regency for the period of 2020-2025. Article 20, Section 6, of this regulation states that the geotourism attractions under development include the topography overlooking Lake Toba, Sibandang Island, and other designated areas. This regulation serves as a reference for establishing tourism patterns and managing tourism destinations on Sibandang Island by considering economic, social, cultural, environmental, and technological aspects as sources and impacts that need to be managed and controlled.

Sibandang Island has a unique geological structure and landscape, representing natural heritage formed by the volcanic eruption of Lake Toba, as well as cultural diversity from the past, both tangible and intangible.

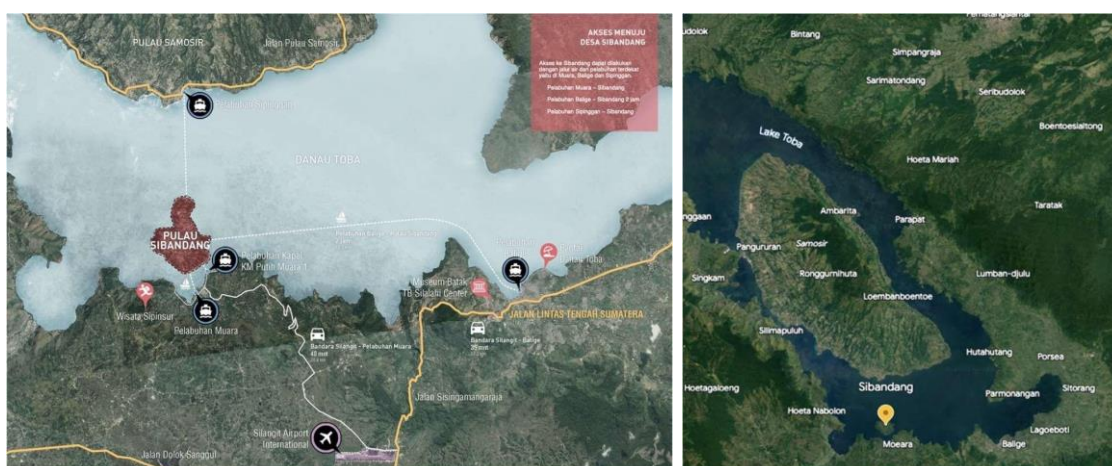


Figure 1: Position of Sibandang Island in Lake Toba

As seen in Figure 1, Sibandang Island is the second largest island in Lake Toba after Samosir Island, with an area of 4.61 km². Sibandang Island is administratively divided into

three villages: Sibandang Village (population: 1,019), Papande Village (population: 850), and Sampuran Village (population: 600), totaling 2,469 inhabitants.

Several indicators supporting tourism development are outlined in the table below:

Table 1. Pre-Survey Observations

Strengths	<p>The potential of local culture and traditions is suitable to be developed as cultural tourism, such as historical graves, traditional dances, customary ceremonies, art and crafts like ulos weaving, etc.</p> <p>The area boasts beautiful natural scenery.</p> <p>Tourism access and facilities in the Sibandang area are relatively comprehensive.</p> <p>The lake water is vast and relatively calm, making it suitable for water tourism, fishing, etc.</p> <p>There is a positive response from the community towards tourism development.</p>
Weaknesses	<p>Some customary figures (elders) are unwilling to pass down and preserve their cultural heritage to the next generation for various reasons.</p> <p>Local community awareness regarding cleanliness still needs to be improved.</p> <p>Infrastructure facilities such as cellular networks, especially in the <i>Papa</i> area, are still very limited.</p> <p>The local community and tourism awareness groups (<i>pokdarwis</i>) lack the skills to create tourism packages, narratives, and itineraries tailored to the needs of tourists.</p>
Opportunities	<p>Information about tourism in Lake Toba has already been widely disseminated, with Lake Toba designated as a Super Priority Destination.</p> <p>There is a need for better management of cultural tourism.</p> <p>The tourism sector has the potential to create more job opportunities.</p> <p>There is a need for a mutual agreement between the three villages to support the development of culture-based tourism in Sibandang Island.</p> <p>The demand for tourism services from various community elements is quite high.</p>
Threats	<p>There is a risk of sectarian conflicts if tourism development is emphasized based on individual village interests.</p> <p>Kinship-based leadership politics can influence the governance system.</p> <p>The loss of cultural heritage and values in the community.</p>

Sources: Processed Primary Data

Based on this data, tourism development has primarily been approached from a top-down perspective, where local communities, the key actors, have not been involved in the planning process. This has the potential to create new conflicts within the community.

Strengthening the identity of the destination is crucial, as the *Tourist Area Life Cycle* (TALC) model indicates that Pulau Sibandang is still in the exploration phase. In this phase, the region is just beginning to develop as a tourist destination, with attractions focused on nature and culture that have yet to be fully developed. The organization of culture-based events can serve as a tool to attract tourists and build the destination's reputation.

As a form of tourism, cultural performances like festivals can be studied in relation to attractions that have social and cultural contexts. Festivals also serve as a community celebration and provide a platform for residents to welcome visitors and share activities, representing shared values, interests, and aspirations. Therefore, festivals are an outward manifestation of community identity, offering a distinct character to the local area.

A cultural festival highlighting the local social and cultural context of the community will create a unique identity for tourism attractions, differentiating them from those in other

regions outside of Pulau Sibandang. This identity becomes a key advantage in developing tourism in Pulau Sibandang.

This aligns with earlier theories linking cultural event management as a tourist attraction, such as the *Festival as Ritual* theory, which explains how festivals function as communal rituals that attract tourists seeking cultural experiences. Moreover, the economic value brought by tourists attending cultural festivals leads to higher tourist satisfaction, as the *Experience Economy* theory suggests that consumers place greater value on experiences than on goods or services, thus impacting how festivals are marketed as unique experiences for visitors.

Based on tourism and event management models, key elements include attraction features (e.g., authenticity), accessibility features (e.g., location), convenience features (e.g., facilities/services), and additional products or services that directly or indirectly enhance visitors' overall experiences at festival and event-based tourism sites.

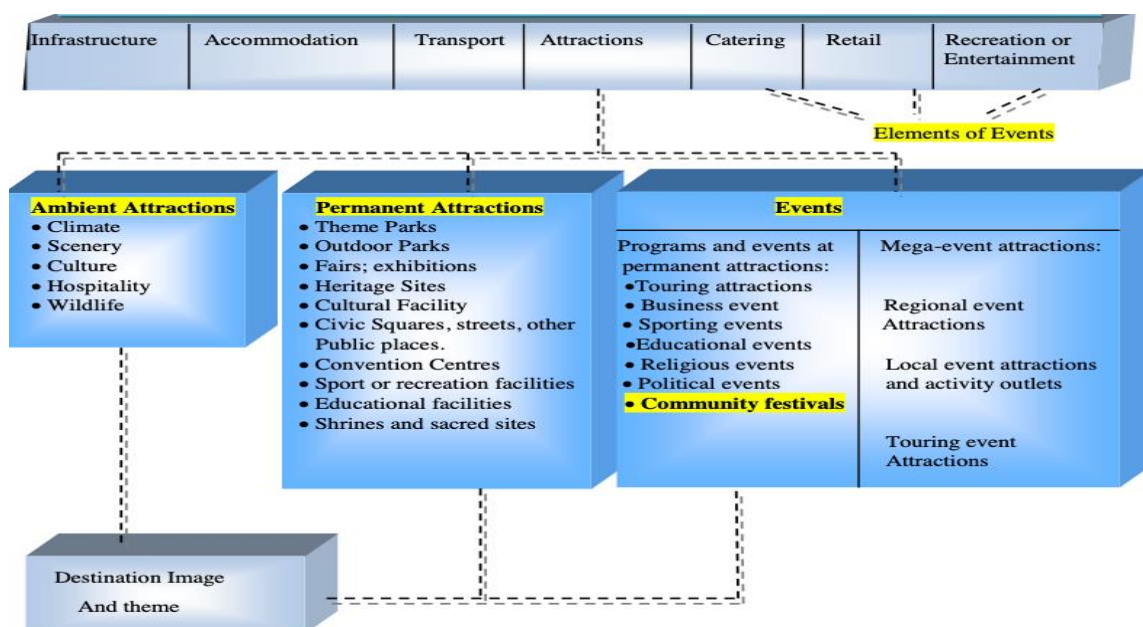


Figure 2. Festival Event Identification in the Tourism Industry Supply Chain
(Sources: Adopted from Getz)

Previous research on community-based festival event management in Meat Village demonstrated how the community's involvement in managing the event led to the formation of arts groups and self-managed event organization by the community.

Methods

1. Research Location and Subjects

This research was conducted in Pulau Sibandang, North Tapanuli Regency, North Sumatra, focusing on three main villages: Sibandang Village, Papande Village, and Sampuran Village. The primary subjects of this research involved key stakeholders in tourism management, namely the Village Tourism Manager (POKDARWIS), a sample of tourists, and the Village Head. Data validation was also carried out through focus group discussions (FGD)

involving participants from POKDARWIS, BUMDESMA (Village-Owned Enterprises), the Head of the Tourism Office, village officials, tourists, village facilitators, and community leaders.

2. Research Design

This study utilized a mixed-method approach, integrating both qualitative and quantitative data collection techniques to provide a comprehensive understanding of the tourism potential and challenges in Pulau Sibandang. The Analisis Daerah Operasi Objek dan Daya Tarik Wisata Alam (ADO-ODTWA) method was employed to assess the operational capacity of natural attractions and the potential for cultural events as tourism drivers.

3. Data Collection Techniques

a. Primary Data Collection:

- Interviews: Semi-structured interviews were conducted with three key informants: the Village Tourism Manager (POKDARWIS), a representative sample of tourists, and the Village Head. The aim was to gain insights into the operational aspects of tourism and event organization in Pulau Sibandang.
- Focus Group Discussions (FGD): The FGD involved various stakeholders such as POKDARWIS, BUMDESMA, the Village Head, and other local leaders, the North Tapanuli Tourism Office, cultural communities, and local figures. This discussion aimed to explore the challenges and opportunities in developing cultural events as strategic tourism attractions.
- Field Observations: Direct observations were conducted to assess tourism activities, infrastructure, and environmental conditions, which complemented the qualitative data.

b. Secondary Data Collection:

- Document Review: This included reviewing Regional Regulation No. 02 of 2020 concerning the North Tapanuli Regional Tourism Development Master Plan and other relevant policy documents.
- Literature Review: An analysis of references from academic journals and previous research on sustainable tourism, cultural events, and community-based tourism was conducted.

4. Sampling Method

The study used purposive sampling to select 3 (three) key informants for interviews and FGDs. This method was chosen to ensure that the informants had direct experience and an in-depth understanding of tourism management, event organization, and local governance related to tourism.

5. Data Analysis Techniques

a. Quantitative Analysis:

- The ADO-ODTWA method was used to evaluate tourism potential based on 11 variables, including attractiveness, accessibility, environmental conditions, infrastructure, and marketing potential. Each variable was scored, and the total potential was calculated to determine the readiness of tourism in Pulau Sibandang. Where:
S = Final score for a given variable
N = Total score for each variable (mode score)
B = Weight value of each variable

b. Qualitative Analysis:

Thematic analysis was applied to the interview and FGD transcripts to identify emerging themes related to community engagement, cultural event potential, and

tourism challenges. This analysis focused on identifying factors that could enhance Pulau Sibandang's tourism appeal, especially through event-based tourism.

6. Validation and Triangulation

The data collected from interviews, FGDs, and field observations were validated through triangulation to ensure the accuracy and reliability of the findings. The involvement of multiple stakeholders in the validation process provided a holistic view of the tourism potential in Pulau Sibandang and the feasibility of organizing cultural events as a key attraction.

Table 2 : provides the weight values for each variable used in this study.

NO	Assesment Criteria	Weight
1	Attraction	6
2	Market Potential	5
3	Connectivity. Accessibility	5
4	Surrounding Area Conditions	5
5	Management and Service	4
6	Accommodation	3
7	Supporting Facilities and Infastructure	5
8	Security	5
9	Environmental Carrying Capacity	4
10	Marketing	4
11	Market Share	3

Source: Guidelines for Analysis of Operational Areas of Natural Tourism Objects and Attractions of the Directorate General of Forest Protection and Nature Conservation in 2023

Results and Discussion

Tourism Potential and Attractions of Pulau Sibandang

Pulau Sibandang is recognized for its unique geological structure and rich cultural heritage, which stem from the ancient Toba volcanic eruption. This island is an integral part of the Toba Caldera UNESCO Global Geopark and has become an essential geotourism attraction. It boasts a variety of cultural assets, including traditional Batak Toba villages, historical sites, and unique natural landscapes. These assets provide substantial tourism potential that aligns with the geotourism and ecotourism concepts, promoting sustainable tourism development in North Tapanuli.

In assessing the tourism potential of Pulau Sibandang, the study applied the Analisis Daerah Operasi Objek dan Daya Tarik Wisata Alam (ADO-ODTWA) method. The analysis covered 11 variables, such as accessibility, surrounding conditions, visitor management, marketing, and accommodation.

Tourist Attraction Analysis Finding

The evaluation of Pulau Sibandang's tourism potential revealed that the island possesses strong tourism attractions due to its unique natural beauty and rich cultural heritage. as highlighted in Nukey's research (2018), Tourist Attraction must possess uniqueness, beauty, and value to effectively draw visitors. The following table calculates the tourist attraction score:

Table 3: Calculation of Tourist Attraction Score

No	Element / Sub-element	Score
1	Beauty	30
2	Comfort	30
3	Safety	30
4	Water and Environmental Cleanliness	25
5	Variety of Activities in the Lake	30
6	Variety of Activities around the Lake	30
7	Uniqueness of the Lake Environment	30
Total		205
Total (Score x Weight (6))		1230

Source: Processed Primary Data

The total score for tourism appeal in Sibandang Island was 1230, indicating excellent potential across various aspects such as beauty, comfort, safety, cleanliness, and activity variety. However, the cleanliness of water and the environment scored slightly lower, at 25 out of 30, highlighting the need for improvement in these areas to optimize the island's tourism appeal.

The findings from the Focus Group Discussion (FGD) further emphasized the need for better water infrastructure. As stated by the village head of Sampuran, "Clean water aid from Singapore is available, but its use is still limited, and in Papande village, the equipment is broken." This statement illustrates that, although there are efforts to improve water access, additional resources are needed to expand the reach and effectiveness of clean water initiatives.

Clean water and environmental sustainability are crucial for tourism development, particularly in natural and ecotourism destinations. Research has shown that maintaining clean water and a well-managed environment not only attracts tourists but also supports the long-term sustainability of the destination (Baloch et al., 2022; Cheia, 2013). If water cleanliness and environmental management are improved, Pulau Sibandang has the potential to offer an even better tourist experience.

Market Potential Analysis Finding

Tourism demand is an essential indicator of the level of interest tourists have in a particular destination. According to economic theories of supply and demand, tourism demand is influenced by factors such as the destination's attractiveness, accessibility, available facilities, and promotional efforts. In this study, the tourism demand for Pulau Sibandang was evaluated with a total score of 75, indicating a moderate level of interest. This score suggests that while there is potential for further market development, additional promotional efforts and the enhancement of tourism attractions are needed to draw more visitors.

Table 4: Calculation of Market Potential Score

No	Element / Sub-element	Score
1	Level of Tourism Demand	15
Total		15
Total (Score x Weight (5))		75

Source: Processed Primary Data

The results of the Focus Group Discussion (FGD) emphasized that the local tourism management team, POKDARWIS, lacks the expertise to develop effective marketing strategies. Switno Rajagukguk, the head of POKDARWIS, mentioned that tourists from outside the area are primarily brought in through collaborations with the Sustainable Tourism Initiative (STRIVE). At present, POKDARWIS relies on Instagram for marketing efforts, indicating the need for a more robust marketing strategy.

Research in tourism segmentation suggests that understanding and targeting specific tourist segments is crucial. Destinations should tailor their offerings and marketing approaches based on geographic, demographic, and psychographic factors to meet the expectations of potential visitors (Dolnicar, 2020). By focusing on event management and promoting cultural attractions, Pulau Sibandang could enhance its appeal and increase its market potential as a cultural tourism destination.

Accessibility Analysis Finding

Accessibility plays a crucial role in enhancing the appeal of a tourism destination. According to Leiper's Model of Tourism System, accessibility is one of the three core elements that determine the success of a tourism system, along with the destination itself and the market. Accessibility not only refers to physical proximity but also includes the ease of travel, transportation infrastructure quality, travel time, and service frequency. Mill and Morrison (2002) further support this, noting that improved accessibility increases a destination's potential to attract more visitors, boosting its popularity and revenue.

Table 5 : Calculation of Accessibility Score

No	Element / Sub-element	Score
1	Condition & Distance of Land Routes from the Provincial Capital	20
2	International / Domestic Air Gateway	40
3	Travel Time from the Provincial Capital	10
4	Frequency of Vehicles from the Information Center to the Tourist Attraction (per day)	10
Total		80
Total (Score x Weight (5))		400

Source: Processed Primary Data

In this study, the accessibility of Pulau Sibandang was evaluated based on factors such as road conditions and distance from the provincial capital, access via Silangit international and domestic airport, travel time, and the frequency of transportation. The total accessibility score was 400, indicating that access to the island is moderate to good. Air travel through Silangit Airport scored highly, showing strong connectivity, but the condition of road infrastructure and transportation frequency needs improvement. Addressing these areas could enhance Pulau Sibandang's overall appeal and increase tourist visits.

Feedback from the FGD revealed that transportation difficulties remain a challenge for tourists. The Director of Rumah Karya Indonesia highlighted that "transporting both tourists and event production materials to Pulau Sibandang presents difficulties. Event equipment such as rigging and sound systems typically requires trucks, but since access to the island is limited to boats, it is unclear whether trucks can be accommodated."

In the context of cultural events, Getz (2008) emphasizes the importance of accessibility in ensuring high participation. Easy and convenient access plays a significant role in attracting tourists to cultural events.

The Conditions of the Surrounding Area Analysis Finding

The surrounding conditions of Pulau Sibandang play a crucial role in supporting sustainable tourism development. Key elements analyzed in this study, such as land-use planning, unemployment rates, education, and community responses, all contribute to the island's potential as a tourism destination. The study found that Pulau Sibandang has a strong foundation for tourism growth, with land-use planning and education scoring highly in supporting development efforts. The following table calculates the conditions of the surrounding area score:

Table 6: Calculation of the Conditions of the Surrounding Area Score

No	Element / Sub-element	Score
1	Spatial Planning of the Area	30
2	Unemployment Rate	30
3	Livelihoods of the Local Population	20
4	Visitor Movement Space (ha)	30
5	Education Level	30
6	Soil Fertility Level	10
7	Natural Resources	10
9	Community Response to the Development of Tourist Attractions	25
Total		185
Total (Score x Weight (5))		925

Source: Processed Primary Data

According to the North Tapanuli Regency Regional Regulation 2017-2037 on Spatial Planning (RTRW), Pulau Sibandang is integrated into the region's tourism development strategy, with a focus on ecotourism and heritage conservation. This aligns with the feedback from Sasma H. Situmorang, Head of the North Tapanuli Tourism Office, who emphasized during the FGD that "zoning and clear land mapping from the local community are essential to ensure integrated tourism development."

The findings of this research underscore the importance of effective zoning and community participation in tourism development. Proper zoning minimizes land-use conflicts and promotes sustainable tourism by ensuring that local communities can engage in tourism-related economic activities (Yiu & Cheung, 2021). Additionally, community involvement and positive responses are critical for long-term success, as highlighted by Mowforth and Munt (2003).

Overall, the study indicates that Pulau Sibandang has strong potential for tourism development, particularly with the support of local community engagement, education, and zoning strategies.

Management and Service Quality Analysis Finding

Management and service quality are key factors in determining the success of a tourism destination. Using the Service Quality theory by Parasuraman, Zeithaml, and Berry (1985), the study evaluated Pulau Sibandang based on five service dimensions: reliability,

responsiveness, assurance, empathy, and tangibles. The evaluation showed that while “Visitor Service” received high marks, indicating efforts to meet tourist expectations, the “Language Skills” dimension scored low, highlighting the need for improvement in communication, especially with international tourists. The following table calculates Management and service quality area score:

Table 7: Calculation of the Management and Service Quality Score

No	Element / Sub-element	Score
1	Management	20
2	Language Skills	15
3	Visitor Service	25
Total		60
Total (Score x Weight (5))		240

Source: Processed Primary Data

The total management and service score was 240, indicating that the overall service quality at the site is fairly good but requires improvements, particularly in language proficiency. According to Switno Rajagukguk, the head of POKDARWIS, during the FGD, “We still struggle with communicating in proper Indonesian, and we can’t speak any foreign languages because we’ve always used our local dialect.”

Research by Harun & Blue (2003) supports this, stating that language skills are crucial for enhancing tourists’ perception of service quality. Improving language proficiency among local tourism managers could significantly improve the tourist experience. Furthermore, Cooper et al. (2008) note that effective management includes human resource development, infrastructure management, and visitor interaction.

In conclusion, although the management and service quality are adequate, there is room for improvement, especially in language skills and overall management practices. Strengthening these areas will enhance the visitor experience and the destination’s overall appeal.

Accommodation Analysis Finding

The development of tourism in Pulau Sibandang is guided by North Tapanuli Regent Regulation No. 33 of 2023, which emphasizes community-based tourism through homestay accommodations. The accommodation capacity on Pulau Sibandang is currently very limited, as reflected by a total score of 30, indicating that there are not enough rooms to accommodate a larger number of tourists. This limitation could hinder the island’s tourism development. The following table accommodations area score :

Table 8: Calculation of the Accommodation Score

No	Element / Sub-element	Score
1	Number of Rooms (units)	10
Total		10
Total (Score x Weight (3))		30

Source: Processed Primary Data

Homestays offer a viable solution for increasing accommodation capacity while preserving the authenticity of the local culture. As Richards and Hall (2000) emphasize,

homestays provide tourists with a more personal and meaningful experience compared to traditional hotels.

The Focus Group Discussion (FGD) results support this approach. Tourism management stakeholders agreed on the importance of involving local residents in promoting the Sapta Pesona principles, particularly among homeowners, to prepare them for future homestay initiatives. According to Tripathi et al. (2024), homestays contribute to the Sustainable Development Goals (SDGs) by creating jobs, improving local welfare, and supporting sustainable tourism.

In conclusion, homestays not only enhance the tourist experience by allowing visitors to immerse themselves in the local culture but also support local economic and cultural sustainability, aligning with the principles of sustainable tourism.

Infrastructure and facilities Analysis Finding

Infrastructure and facilities are critical components in tourism development, as they directly impact the comfort and accessibility of a destination. Inskeep's (1991) Tourism Infrastructure theory emphasizes the importance of efficient transportation, communication networks, and utility services in enhancing the tourist experience. In Pulau Sibandang, the total score for infrastructure and amenities was 180, indicating the presence of basic infrastructure but highlighting the need for further improvements.

The evaluation considered two main elements:

Amenities: Including restaurants, shopping centers, banks, souvenir shops, and transportation services.

Infrastructure: Such as post offices, telecommunications networks, healthcare centers, electricity, and water supply systems.

The following table of the Infrastructure and facilities score:

Table 9: Calculation of The Infrastructure and facilities Score

No	Element / Sub-element	Score
1	Facilities	30
2	Infrastructure	30
Total		60
Total (Score x Weight (3))		180

Source: Processed Primary Data

The results from the Focus Group Discussion (FGD) reinforced the need for improved infrastructure on the island. Stakeholders highlighted issues such as the need for better telecommunications, clean water, and electricity. Additionally, they emphasized the importance of enhancing public facilities like restaurants and transportation to boost tourism and ensure the destination's sustainability. Sasma H. Situmorang, a local tourism official, remarked during the FGD, "Infrastructure improvements are crucial for long-term tourism development on the island."

This analysis aligns with previous research, which shows that well-developed infrastructure is essential for supporting tourism growth and enhancing the overall experience for visitors (Khadaroo & Seetanah, 2008). While the current infrastructure is

sufficient, improvements in accommodation, transportation, and public facilities will further elevate Pulau Sibandang's attractiveness as a tourist destination.

Security Analysis Finding

Security is a crucial factor in tourism development, as it directly impacts tourists' decision-making and their perception of a destination. According to Tarlow (2009), tourists are more likely to visit destinations they perceive as safe. In the case of Pulau Sibandang, a total security score of 525 indicates that the island's security is relatively well-managed, though specific risks, such as fire hazards, unauthorized flights, and land encroachment, require further attention. The following table of the security score:

Table 10: Calculation of the Security Score

No	Element / Sub-element	Score
1	Visitor Safety	30
2	Fire Hazards (based on causes)	25
3	Unauthorized Flights (for specific purposes)	25
4	Encroachment (Land Use)	25
Total		105
Total (Score x Weight (5))		525

Source: Processed Primary Data

The Event Safety Management theory emphasizes the importance of comprehensive security planning for events, particularly to manage risks like fires and crowd control. During the Focus Group Discussion (FGD), Sasma H. Situmorang, Head of the Tourism Office, stressed the need for emergency response plans to address potential fire risks during events. Additionally, Switno Rajagukguk, Head of POKDARWIS, highlighted the importance of involving local communities in ensuring security during events.

This aligns with Ritchie's (2004) research, which indicates that comprehensive security strategies and crisis management help build tourist confidence in a destination's safety. The involvement of stakeholders like POKDARWIS and village officials during the FGD shows that Pulau Sibandang is aware of the need to improve local security systems. Enhancing safety management, particularly in areas such as fire prevention and environmental protection, will support the island's sustainable tourism development.

Carrying Capacity Analysis Finding

Carrying capacity is a vital concept in the sustainable management of tourism areas, ensuring that tourism activities do not harm the environment or degrade the quality of the tourist experience. According to Butler's (1980) Carrying Capacity theory, various factors, such as soil erosion sensitivity and environmental impact, must be considered in managing visitor numbers and activities in tourist destinations. In Pulau Sibandang, the total carrying capacity score was 330, indicating that while the area is generally suitable for tourism, certain aspects, such as soil erosion risk, require further attention. The following table of carrying capacity score:

Table 11: Calculation of Carrying Capacity Score

No	Element / Sub-element	Score
1	Number of Visitors (People/Day/ha)	30
2	Soil Sensitivity to Erosion	25
3	Type of Activities	25
4	Area of Utilization Zone Unit (ha)	30

Total	110
Total (Score x Weight (3))	330

Source: Processed Primary Data

During the Focus Group Discussion (FGD), Switno Rajagukguk, Head of POKDARWIS, emphasized the need to limit visitor numbers during cultural events to maintain ecological balance and ensure visitor safety. Both village officials and community leaders agreed that educating the local population on environmental protection is crucial to preventing further land degradation around Pulau Sibandang.

This is consistent with research in coastal areas, which shows that limiting visitor numbers and monitoring tourism activities are effective strategies for preserving ecological balance and ensuring long-term environmental sustainability (Suwarno et al., 2018). Therefore, careful management of land-use zones and visitor activities is essential to prevent environmental degradation and support the sustainable development of tourism on Pulau Sibandang.

Marketing Analysis Finding

The marketing mix is essential for tourism development, encompassing four key elements: product, price, place, and promotion. In Pulau Sibandang, these elements are still in the early stages of optimization, as reflected by the total marketing score of 100, indicating that the current strategy is not yet sufficient to enhance the island's visibility as a top tourism destination. The following table of marketing score :

Table 12: Calculation of marketing Score

No	Element / Sub-element	Score
1	Marketing Mix	25
Total		25
Total (Score x Weight (4))		100

Source: Processed Primary Data

The marketing efforts for cultural events, in particular, need to be strengthened. Integrating marketing strategies, especially in digital marketing, would significantly increase the visibility and attractiveness of Pulau Sibandang's cultural heritage. This approach aligns with the theories of effective cultural tourism marketing, where cultural events serve as powerful tools for promoting a destination's unique identity and contributing to local economic growth through tourism.

During the Focus Group Discussion (FGD), stakeholders emphasized that the island's marketing strategy is currently underdeveloped. Key challenges include a lack of integrated promotional efforts and limited use of digital marketing platforms. The Head of the Tourism Office mentioned plans to introduce training programs to improve digital marketing skills, which will help position Pulau Sibandang as a competitive cultural tourism destination.

To fully capitalize on Pulau Sibandang's potential, the marketing mix must be optimized. Strengthening branding as a cultural tourism destination and enhancing digital marketing competencies will support local tourism growth and improve the community's

economy. Applying strategies aligned with Integrated Marketing Communication (IMC) principles will maximize the island’s market potential (Jamrozy, 2007; Suwarno et al., 2018).

Market Share Analysis Finding

The market potential for cultural event management in Pulau Sibandang is influenced by how well the event aligns with visitor preferences and market segmentation. The market analysis, based on visitor origin, education level, and occupation, yielded a total score of 225, indicating promising market potential that requires further optimization. The high level of education among visitors suggests a preference for more specialized experiences, while the dominance of visitors from specific regions and varying occupations must be factored into marketing strategies and event planning. The following table of market Share score :

Table 13: Calculation of market share Score

No	Element / Sub-element	Score
1	Visitor Origin (Majority)	20
2	Education Level (Majority)	30
3	Livelihood	25
Total		75
Total (Score x Weight (5))		225

Source: Processed Primary Data

During the Focus Group Discussion (FGD), Switno Rajagukguk, Head of POKDARWIS, noted that visitors are primarily seeking authentic and immersive cultural experiences. Although the market potential is significant, deeper insights into visitor needs are required, especially in crafting focused marketing strategies that cater to specific segments, such as culturally inclined tourists. Stakeholders agreed that the cultural events on Pulau Sibandang should highlight the island’s unique offerings while targeting the appropriate market segments.

Research supports the importance of market segmentation in cultural tourism, particularly in understanding the preferences of highly educated visitors. According to Dolnicar (2020), data-driven market segmentation is effective in maximizing tourism potential and enhancing visitor experiences. Properly managing cultural events with these insights will contribute to the success and growth of Pulau Sibandang as a cultural tourism destination.

Classification of Potential Development Levels

A comprehensive analysis was conducted using the ODTWA method to assess Pulau Sibandang’s potential as a cultural event venue to strengthen the tourism identity of North Tapanuli. The findings show that the island possesses several strengths in attraction, surrounding area conditions, supporting infrastructure, and security, but there are areas for improvement in accommodation and marketing. The following is a data analysis based on the classification of the level of potential development on Sibandang Island:

Table 14: Classification of Potential Development Levels

No.	Assessment Criteria	Weight	Total Score	Potential Score (Total)	Max Potential Score (ODTWA)	Potential Score Index (%)	Feasibility Index	Classification
-----	---------------------	--------	-------------	-------------------------	-----------------------------	---------------------------	-------------------	----------------

1	Attraction	6	205	1230	1260	0.29496403	97.6	High
2	Market Potential	5	15	75	150	0.01798561	50.0	Medium
3	Connectivity / Accessibility	5	80	400	600	0.09592326	66.7	High
4	Surrounding Area Conditions	5	185	925	925	0.22182254	100.0	High
5	Management and Service	4	60	240	360	0.05755396	66.7	High
6	Accommodation	3	10	30	90	0.00719424	33.3	Low
7	Supporting Facilities and Infrastructure	3	60	180	180	0.04316547	100.0	High
8	Security	5	105	525	600	0.12589928	87.5	High
9	Carrying Capacity of the Area	3	110	330	360	0.07913669	91.7	High
10	Marketing	4	25	10	120	0.00239808	8.3	Low
11	Market Share	3	75	225	270	0.05395683	83.3	High
			930	4170	4915		84.8	High

Source: Processed Primary Data

Tourism Attraction in Pulau Sibandang boasts a significant advantage in its natural and cultural attractions, scoring 205 out of 1230 with a high feasibility rating of 97.6%. The island's unique local culture, combined with its scenic beauty, makes it an ideal candidate for hosting cultural events. This high potential can draw both domestic and international visitors, positioning Pulau Sibandang as a cultural tourism hub with the right planning and promotion.

The market potential for Pulau Sibandang is moderate, scoring 15 out of 75 with a feasibility rating of 50.0%. This indicates that while there is some interest in the destination, stronger marketing strategies are required to fully tap into its potential. Efforts should focus on attracting niche market segments that are particularly interested in local culture and unique cultural experiences.

Accessibility to Pulau Sibandang is rated as moderate, with a score of 80 out of 400 and a feasibility rating of 66.7%. This suggests that while the island is accessible, current infrastructure challenges, such as road conditions and transport options, may hinder smooth travel for tourists. Infrastructure improvements, particularly in transportation, will be necessary to enhance visitor comfort and make the island more attractive for hosting cultural events.

The surrounding area conditions of Pulau Sibandang are highly favorable, scoring 185 out of 925 with a perfect feasibility rating of 100%. The well-maintained environment, along with strong community support for tourism development, provides a solid foundation for sustainable tourism. This ensures that cultural events can be held without damaging the local environment, enhancing the island's appeal as a long-term cultural tourism destination.

Management and service at Pulau Sibandang is rated as moderate, with a score of 60 out of 240 and a feasibility rating of 66.7%. This suggests that improvements are needed in event management and hospitality services. Local workers, especially in the hospitality sector, would benefit from training to better serve visitors and ensure the smooth execution of cultural events.

Accommodation is a key challenge for Pulau Sibandang, as reflected by its low score of 10 out of 90 and a feasibility rating of 33.3%. The island currently lacks sufficient capacity to host large numbers of tourists. To address this, local communities could be trained in homestay management, which would not only increase capacity but also provide an additional source of income for residents.

The supporting infrastructure of Pulau Sibandang, such as electricity and water supply, is available but requires further enhancements. With a score of 60 out of 180 and a high feasibility rating of 100%, the infrastructure is adequate for smaller events but would need upgrades to meet the demands of larger, more modern cultural events. Investing in these improvements would ensure the island's readiness for high-profile events.

Security on Pulau Sibandang is rated highly, with a score of 105 out of 525 and a feasibility rating of 87.5%. The high level of security is crucial for the island's viability as a cultural event venue. Ensuring the safety and well-being of visitors during events will significantly enhance the island's reputation and increase tourist confidence.

The carrying capacity of Pulau Sibandang is strong, with a score of 110 out of 360 and a feasibility rating of 71.9%. This indicates that the island has the environmental capacity to host cultural events without causing harm to its ecosystem. However, careful management is needed to ensure that tourism development remains sustainable and that the natural environment is preserved for future generations..

Marketing is one of the weaker aspects of Pulau Sibandang's tourism potential, scoring 25 out of 120 with a low feasibility rating of 8.3%. This highlights the need for a more integrated and aggressive marketing strategy to increase the island's visibility. Targeted marketing campaigns, particularly focusing on its cultural assets, will be essential to attract a larger number of tourists and make cultural events more successful.

The market reach of Pulau Sibandang is promising, scoring 75 out of 270 with a high feasibility rating of 83.3%. This reflects the strong potential for attracting tourists who are interested in cultural experiences. With targeted event design and strategic marketing efforts, the island can tap into this market and significantly boost visitor numbers.

Pulau Sibandang has substantial potential to become a key destination for cultural events. However, to fully realize this potential, improvements are needed in marketing, accommodation, accessibility, and infrastructure. With these enhancements, the island can position itself as a premier cultural tourism destination, capable of attracting both domestic and international visitors.

Conclusion

The comprehensive analysis using the ODTWA method reveals that Pulau Sibandang has substantial potential for development as a cultural event destination. While the island's tourism appeal is supported by its natural and cultural attractions, and infrastructure and security show high feasibility, significant improvements are needed in the areas of accommodation and marketing. The island's market potential remains moderate, indicating a need for more robust marketing strategies, particularly focusing on market segments interested in local culture.

In terms of accessibility, Pulau Sibandang still faces challenges, though improvements in transportation infrastructure could enhance visitor comfort and event feasibility. Additionally, the surrounding environmental and social conditions are highly supportive of tourism growth, with community engagement playing a crucial role in ensuring sustainability.

Overall, while Pulau Sibandang has many strengths, further development in accommodations, marketing, and infrastructure is essential to fully realize its potential as a cultural event destination. Ensuring a balance between tourism growth and environmental sustainability will be critical for its long-term success.

Acknowledge

We would like to thank Direktorat Akademik Pendidikan Tinggi Vokasi for Beginner Lecturer Research Grant (PDP) that has been awarded with contract number 98/SPK/D.D4/PPK.01.APTV/III/2024 tanggal 13 Maret 2024.

Bibliography

- Andriani, N. N., & Hadi, A. P. (2018). Pola Perjalanan Wisatawan Timur Tengah Berdasarkan Profil Wisatawan dan Motivasi Pola Pergerakan di Bandung. *National Conference of Creative Industry: Sustainable Tourism Industry for Economic Development*, 265–284.
- Butler, R. W. (1980). The concept of a tourist area cycle of evolution: Implications for management of resources. *Canadian Geographer*, 24(1), 5-12.
- Dolnicar, S. (2020). Market segmentation for tourism: One step further. *Journal of Travel Research*, 59(6), 1034-1039.
- Getz, D. (2008). Event tourism: Definition, evolution, and research. *Tourism Management*, 29(3), 403-428.
- Inskeep, E. (1991). *Tourism planning: An integrated and sustainable development approach*. Van Nostrand Reinhold.
- Jamrozy, U. (2007). Marketing of tourism: A paradigm shift toward sustainability. *International Journal of Culture, Tourism and Hospitality Research*, 1(2), 117-130.
- Kotler, P. (1997). *Marketing management: Analysis, planning, implementation, and control* (9th ed.). Prentice Hall.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4), 41-50.
- Richards, G., & Hall, D. (2000). *Tourism and sustainable community development*. Routledge.
- Schultz, D. E., Tannenbaum, S. I., & Lauterborn, R. F. (1993). *Integrated marketing communications: Pulling it together and making it work*. NTC Business Books.

- Suwarno, A., et al. (2018). Sustainable tourism development in coastal areas: Managing visitornumbers and environmental balance. *Journal of Sustainable Tourism*, 26(9), 1402-1419.
- Tarlow, P. (2009). *Tourism safety and security: Practical measures for destinations*. Butterworth-Heinemann.