

Development of Agrotourism to Support Tourism Growth in Sigapiton Village

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Received on 14 August 2025	Revised on 23 September 2025	Accepted on 25 September 2025
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ABSTRACT

This research aims to analyze the potential for developing agrotourism in Sigapiton Village as an effort to support rural tourism development. The analysis was carried out using the 6A components approach (Attractions, Accessibility, Amenities, Available Packages, Activities, and Ancillary Services) to identify the strengths and weaknesses of the destination. Furthermore, a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) was conducted to map internal and external factors influencing agrotourism development. Based on the SWOT results, the QSPM (Quantitative Strategic Planning Matrix) method was used to determine the most effective priority strategies to be implemented. The findings indicate that Sigapiton Village has strong potential in terms of natural beauty, local culture, and agricultural diversity, but still faces challenges such as limited accessibility, lack of public facilities, and low community involvement. Through QSPM calculations, the prioritized strategies identified are: (1) development of educational tourism packages based on agriculture and local culture; (2) improvement of accessibility and public facilities; (3) optimization of the role of the community and youth; and (4) digital promotion and agrotourism branding. These strategies are expected to support the development of tourism in Sigapiton Village as an agrotourism destination and contribute to the well-being of the local community.

Keywords: agrotourism, rural tourism, SWOT analysis, QSPM method, tourism development, Sigapiton Village

INTRODUCTION

Tourism is a travel activity undertaken by individuals or groups to a destination for the purposes of recreation, business, or other interests within a certain period (Cooper & Hall, 2008). According to the World Travel & Tourism Council (2023), the tourism industry contributed approximately 9.1% to the global Gross Domestic Product (GDP), marking a 23.2% increase compared to 2022, and providing over 330 million jobs worldwide. In Indonesia, the Ministry of Tourism and Creative Economy reported that in 2022, the tourism sector contributed around 4.2% to the national GDP and became a major source of foreign exchange.

Agrotourism is defined as a form of agriculture-based tourism that allows visitors to engage with farming, plantation, livestock, or fisheries activities in an educational and recreational context (Phillip *et al.*, 2010). This concept not only diversifies the income sources of rural communities but also functions as a means of preserving local culture and traditional farming practices. According to Tew & Barbieri (2012), well-planned agrotourism development can enhance farmers' welfare, create new business opportunities, and support the conservation of natural resources and biodiversity. It provides interactive and educational experiences where tourists can learn about agricultural techniques, participate in

farming activities, and harvest agricultural products. Sutjipta (2001) emphasizes that agrotourism is an integrated and coordinated system that supports both tourism and agriculture, in connection with environmental preservation and improving farmers' livelihoods.

Sigapiton Village, located in Ajibata District, Toba Regency, is one of the villages with significant potential to be developed into a leading agrotourism destination. Covering an area of approximately 5 km², the village is bordered by Motung Village in the north, Sirungkungan in the south, Pardamean Sibisa in the east, and Lake Toba in the west. Topographically, Sigapiton is nestled between two high hills at an elevation of 915 meters above sea level, offering a steep hilly landscape with rocky soil contours and rice fields. The village is rich in agricultural products such as rice, glutinous rice, cocoa, coffee, cassava, pumpkin, candlenut, corn, shallots, chili, mangoes, durians, and many others, providing great opportunities for tourists to engage directly in farming activities.

The development of agrotourism in Sigapiton Village has the potential to significantly support the local economy. Research conducted in Serang Village by Wardhani (2022) revealed that agrotourism has a positive impact on increasing community income and business opportunities. Similarly, Puspaningrum & Adiwinata (2018) found that agrotourism contributes to job creation, village development, and environmental sustainability. Through agrotourism, local communities can gain direct economic benefits from the integration of agriculture and tourism, generate employment, and improve overall well-being. However, the current management of agrotourism in Sigapiton remains limited, with underutilized natural resources and a lack of systematic integration between farming activities and tourism. Most agricultural products are still sold through local markets without involving tourists, despite the potential to make these activities a core attraction.

Strategic development is key to optimizing the agrotourism potential of Sigapiton Village. According to Kotler & Keller (2016), development strategy refers to a series of planned actions aimed at achieving long-term objectives by leveraging regional competitive advantages. The urgency of this research lies in the potential of Sigapiton Village to develop agrotourism as a strategy to support local tourism development and improve community welfare. The idea of agrotourism development is in line with the community's aspirations, as many residents depend on agriculture and are interested in integrating it with tourism activities. Initial tourism efforts have been pioneered by Pokdarwis, supported by the village government and occasional programs from the local government, although the implementation has not yet been optimal. In light of these factors, this study, titled **"Development of Agrotourism to Support Tourism Development in Sigapiton Village"**, aims to analyze the 6A components (Attractions, Accessibility, Amenities, Available Packages, Activities, and Ancillary Services) in Sigapiton Village and formulate effective agrotourism development strategies. The results of this research are expected to provide strategic recommendations for local governments, entrepreneurs, and communities to optimize agrotourism potential, enhance local economic welfare, and create a sustainable and competitive tourism destination, so that ultimately Sigapiton Village can emerge as a successful model of agrotourism development.

RESEARCH METHODS

This research employed a qualitative approach to gain an in-depth

understanding of the phenomenon of agrotourism development in Sigapiton Village. The qualitative method was chosen because it emphasizes comprehensive exploration of social contexts and perspectives from various stakeholders (Moleong, 2017). This approach allowed the researcher to explore policy aspects, tourism actors' experiences, and the impact on local farming communities.

The study used both primary and secondary data. Primary data were obtained through purposive sampling involving village officials, tourism actors (such as tour guides, homestay managers, and tourism awareness groups), and local farmers. These informants were selected based on their relevance and contribution to agrotourism development. Data collection techniques included in-depth interviews, participatory observation, documentation, and literature review. Secondary data were sourced from statistical reports, government documents, books, and scientific articles relevant to agrotourism and rural tourism development. Data analysis applied SWOT (Strengths, Weaknesses, Opportunities, Threats) to identify internal and external factors influencing agrotourism development based on the 6A components (Attractions, Accessibility, Amenities, Available Packages, Activities, Ancillary Services). The SWOT results were then processed using the Quantitative Strategic Planning Matrix (QSPM) to prioritize strategic alternatives based on weighted factors and Attractive Scores (AS) provided by informants (David *et al.*, 2017). This combination enabled the identification of strategies that maximize strengths and opportunities while addressing weaknesses and threats (Pandiangan *et al.*, 2023).

RESULTS AND DISCUSSION

Sigapiton Village, located in Ajibata District, Toba Regency, covers about 5 km² and is divided into three hamlets. It borders Sirungkungan, Sibisa, Motung, and faces Samosir Island. At around 1,000 meters above sea level, the village enjoys a cool climate ideal for agriculture. As of 2025, the village has 581 residents across 171 households, mostly of working age. Education levels vary but are generally limited to elementary and junior high school. Educational and healthcare facilities are basic, with only early childhood and elementary schools, and limited health services.

Agriculture is the main livelihood, focusing on rice and corn, alongside various other crops. Historically, Sigapiton was known for shallot production. Some residents also work as fishermen or run small businesses. However, poor road infrastructure and unstable communication networks hinder development and tourism growth. Sigapiton holds promising potential as an agro-tourism destination due to its rich agricultural diversity and unique cultural traditions like the 'manabor bonih' seed-sowing ritual and the cooperative 'marsidapari' harvest practice, though the former hasn't been performed since 2022.

This study investigates agrotourism opportunities in Sigapiton using the 6A framework (Attractions, Accessibility, Amenities, Available Packages, Activities, Ancillary Services). Data from interviews, observations, and secondary sources were analyzed via SWOT and QSPM to prioritize strategies for sustainable tourism development.

1. Attractions

Sigapiton Village offers several notable attractions, primarily its natural beauty and cultural richness. The village provides stunning views of Lake Toba and is surrounded by lush green hills that enhance its scenic value. Cultural elements such as traditional Batak houses, ulos weaving, and the *tortor* dance also add to its appeal. Additionally, the presence of active agricultural lands presents opportunities for educational tourism, allowing visitors to learn about local farming systems and rural life. However, cultural activities are not yet fully optimized, as there are no regularly scheduled traditional performances.

2. Accessibility

Accessibility to Sigapiton Village remains a major challenge in developing agrotourism. The roads leading to and within the village are relatively damaged and unsuitable for tourist vehicles, especially larger ones. Public transportation options are also limited, requiring visitors to use private or rented vehicles. Although the village is still reachable from the city center and main tourist areas, the biggest obstacle is the lack of reliable internet and phone signal. Observations indicate that only the Telkomsel network is available in the village, and even then, coverage is unstable across many areas. This poses a significant barrier for modern tourists who rely heavily on connectivity. On the positive side, some accessibility aspects are adequate, such as clear directional signs to tourist spots and named hamlets (lumban), which assist visitors in navigating the village.

3. Amenities

Supporting facilities in Sigapiton Village remain very limited. There are 16 homestays available for visitors, all of which are privately owned by local residents, but these accommodations still require improvements in comfort and service standards. Local culinary options are also limited, with only simple food stalls that lack quality and menu variety. Public facilities such as clean toilets, places of worship, and resting areas are inadequate, posing a serious challenge to visitor comfort. Parking areas for tourist vehicles are available but on a limited scale. Other supporting facilities such as gazebos, relaxation areas, and photo spots are minimal. There is only one photo spot, which is located far from the village and is already somewhat damaged. This naturally reduces both the comfort and visual appeal for tourists.

4. Available Packages

Sigapiton Village already offers its own tourism packages, but these have not been optimally developed. There are no agricultural tourism packages, such as planting, harvesting, or plant identification activities, available for visitors. Cultural packages are also poorly designed; the only cultural activity occasionally available to tourists is the *tortor* dance, which is not performed regularly. The existing tourism packages are limited to nature-based activities like trekking and nature exploration. These packages have clear schedules and pricing, although options remain limited. Promotion of these packages has been carried out through social media, primarily Instagram, but efforts are still minimal. Other promotional media, such as brochures or informative and professional websites, have not yet been utilized. The limited variety of tourism activities contributes to low tourist interest in the packages offered. Trekking alone is considered insufficient to attract a broad market, especially without complementary activities

to enrich the visitor experience. Furthermore, the marketing strategy focused solely on Instagram fails to reach wider or more specific target markets, such as niche tourists, nature enthusiast communities, or international visitors.

5. Activities

Tourism activities in Sigapiton Village are still underdeveloped. Visitors have limited opportunities to directly participate in agricultural or plantation activities, or to learn about local product-making such as *ulos* weaving and traditional food preparation. Cultural activities remain minimal, with no workshops or performances that allow tourists to engage and learn directly from the local community. Some activities, such as village tours and environmental exploration, have begun to be offered. Visitors can walk around the village, enjoy the natural scenery, and observe local life. However, direct interaction between the community and tourists during these activities is still rare due to the absence of facilitators or programs that actively connect the two groups. This indicates that tourism activities involving direct community-tourist interaction remain limited and tend to be one-directional.

6. Ancillary Services

Some supporting services are available in Sigapiton Village, such as local guides knowledgeable about the village's history and culture. However, their involvement is not yet well organized. The village lacks an information center or tourist post and has no dedicated security system to ensure visitor comfort. Health services are limited, with only one inadequately equipped community health center. Local residents have begun basic training in tourism services, but implementation is uneven. Tourism awareness groups (Pokdarwis) exist; their organizational structure is led by village-appointed coordinators, and some members have received guidance and training from university mentors and local government programs. Farmer groups (Poktan) also exist but have yet to function optimally. Strengthening these institutions through capacity building and concrete programs remains essential to enhance Sigapiton's readiness as a competitive agrotourism destination.

SWOT (Strengths, Weaknesses, Opportunities and Threats)

In order to develop agrotourism as a leading sector in the tourism development of Sigapiton Village, a comprehensive understanding of various factors influencing its success is necessary. Therefore, a SWOT analysis was conducted to identify and categorize internal factors as strengths and weaknesses, and external factors as opportunities and threats. This analysis provides a strategic overview of the village's current condition, highlighting both its potential and challenges, enabling the formulation of realistic, targeted development strategies that align with the local characteristics and culture of Sigapiton.

To ensure the SWOT analysis is robust and not merely subjective, weighting and importance scores were assigned to each factor. Evaluations were conducted with six key informants who were selected for their knowledge and active involvement in the village's tourism potential and development: Hisar Butar Butar, the Village Head; Dewi Sihombing, a Village Staff member; Lundu Manik and Manogu Manurung, local tourism actors; Megawati Sinaga, a member of the tourism awareness group (Pokdarwis); and Rona Nadapdap, a community member. Each informant scored all identified internal and external factors. The

scores were then totaled and averaged to obtain the final weights and importance scores for each factor. This process ensures the analysis reflects the collective perception of those directly familiar with the village's condition, resulting in data that is more accurate and relevant to real field needs.

The resulting weights and importance scores were used to construct the SWOT matrix for strategy formulation, followed by a Quantitative Strategic Planning Matrix (QSPM) analysis to prioritize strategies based on their attractiveness and feasibility of implementation.

Table 1: Weights & Importance Scores

No.	Factors	Weight	Rating	Score
Strengths				
1	The natural beauty of Lake Toba with its hills, rice fields, and pristine farmland	0.11	4	0.44
2	Batak cultural attractions such as traditional houses, ulos weaving, dance studios, and cultural sites	0.10	4	0.40
3	Digital access and directional signs are available (internet, mobile signal, Google Maps)	0.06	4	0.24
4	Local homestays and parking areas for tourists are available.	0.05	3	0.15
5	Nature tourism packages are available (trekking, exploration, photography) with clear schedules and pricing.	0.05	4	0.20
6	Diverse agricultural products suitable for educational, farm-based tourism.	0.11	4	0.44
Weaknesses				
1	Village road access is poor and unsafe.	0.11	4	0.44
2	Public transportation is limited, and the village is relatively far from the city.	0.03	3	0.09
3	Cultural and agricultural attractions are not yet fully utilized.	0.08	4	0.32
4	Public facilities are inadequate (toilets, places of worship, rest areas, waste bins).	0.05	4	0.20
c	Agricultural and cultural tourism packages are not yet available, and promotion remains limited.	0.08	4	0.32
6	There is no interactive tourism involving the community and agriculture yet.	0.06	4	0.24
7	Information centers, security services, and emergency facilities are not yet available.	0.05	4	0.20
8	Community involvement in tourism is still limited.	0.06	4	0.24
Total		1.00	54	3.92
Opportunities				
1	Development of agricultural and cultural tourism packages	0.14	4	0.56

	(farming activities, ulos weaving, tortor dance).			
2	Digital promotion through social media, brochures, and websites to reach a wider audience.	0.12	4	0.48
3	Community training to improve service quality and increase tourism involvement.	0.08	3	0.24
4	Collaboration with government and private sectors to improve infrastructure and tourism facilities.	0.12	4	0.48
5	Development of local products and crafts as additional attractions.	0.07	2	0.14
Threats				
1	Competition with other more developed tourist villages.	0.11	4	0.44
2	Dependence on natural attractions without additional facilities and activities.	0.07	2	0.14
3	Lack of security and healthcare services that may affect tourist confidence.	0.09	3	0.27
4	Risk of environmental damage due to unsustainable tourism.	0.10	4	0.40
5	Limited interaction between tourists and locals reduces authentic experiences.	0.10	3	0.30
Total		1.00	29	3.45

[Source: Researcher's Analysis]

The following SWOT table summarizes the combined results of these factors and serves as an initial foundation for determining a strategic and sustainable direction for agrotourism development in Sigapiton Village.

Table 2: SWOT Matrix Result

OT \ SW	Strengths	Weaknesses
Opportunities	SO (Strength-Opportunities)	WO (Weaknesses-Opportunities)
	1. Utilizing the natural beauty of Lake Toba and its scenic hills as the main attraction for developing nature-based tourism. 2. Developing Batak cultural attractions (traditional houses, ulos weaving, dance studios, historical sites) into educational and cultural tourism packages. 3. Maximizing digital access and directional tools (internet, Google Maps) to make it easier for tourists to find the location. 4. Strengthening the diversity of agricultural products as a	1. Improving village road access and transportation through collaboration with the government and private sector. 2. Packaging agricultural and cultural tourism packages, which are currently underdeveloped, to attract more tourists. 3. Improving public facilities (toilets, rest areas, places of worship) that are still limited to enhance visitor comfort. 4. Enhancing community training to maximize their role in tourism development and services. 5. Strengthening digital promotion to expand the tourism market reach. 6. Developing a tourist information

	foundation for educational and interactive tourism. 5. Optimizing local homestays and parking areas as accommodation and supporting tourism facilities.	center and emergency and security services that are currently unavailable.
Threats	ST (Strength-Threats)	WT (Weaknesses-Threats)
	1. Leveraging natural and cultural strengths to compete with better-prepared tourist villages. 2. Utilizing digital access to improve security and healthcare services through a rapid response information system. 3. Preserving cultural and natural heritage as unique values that strengthen tourism appeal and maintain its relevance. 4. Developing more diverse nature tourism packages, such as trekking and photography, to better anticipate competition.	1. Improving accessibility and facilities to remain competitive with more developed tourist villages. 2. Addressing environmental damage risks through sustainable tourism practices and education for both the community and tourists. 3. Increasing community and youth involvement to create a more authentic and safe tourism experience. 4. Strengthening security and health services to ensure tourists feel safe and confident when visiting.

[Source: Researcher's Analysis]

Based on the analysis in Table 2, four key strategies were identified:

1. SO Strategy (Strengths–Opportunities): Leverages Sigapiton's natural beauty, rich Batak culture, and diverse agriculture to develop educational agrotourism, improve digital access, promote tourism through social media, and enhance homestay quality.
2. WO Strategy (Weaknesses–Opportunities): Focuses on addressing infrastructure, limited public facilities, and weak promotion by utilizing training opportunities, digital marketing, and collaboration with government and private sectors.
3. ST Strategy (Strengths–Threats): Uses the village's natural and cultural strengths to mitigate threats such as competition and environmental degradation through sustainable tourism practices and more attractive nature-based tourism packages.
4. WT Strategy (Weaknesses–Threats): Aims to reduce weaknesses like poor access and low community involvement while preventing risks such as poor safety and environmental damage by strengthening infrastructure, services, and community engagement.

Based on the strategies formulated in the SWOT Table above, a strategic positioning was then mapped using a SWOT quadrant diagram to determine the most appropriate development direction for Sigapiton Village.

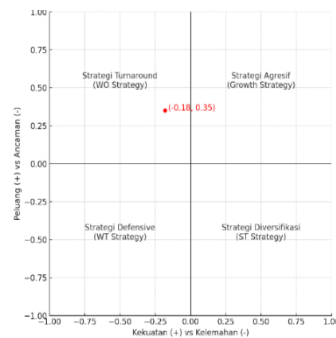


Figure 1 Cartesian Diagram
 [Source: Researcher's Analysis]

Based on the SWOT analysis for agrotourism development in Sigapiton Village, the resulting coordinate is $(-0.18, 0.35)$, placing it in Quadrant II or the Turn Around Strategy position. This indicates that the village faces more internal weaknesses than strengths, particularly in terms of limited infrastructure, lack of digital promotion, and low community involvement. However, there are strong external opportunities such as the potential for educational tourism, collaboration with external parties, and rich cultural heritage. These opportunities can be utilized to address the existing weaknesses. Therefore, the recommended approach is to apply a WO strategy by improving internal conditions through the development of agricultural and cultural tourism packages, community capacity building, infrastructure improvement, and enhanced digital promotion.

QSPM (Quantitative Strategic Planning Matrix)

The Quantitative Strategic Planning Matrix (QSPM) method was used as an analytical tool to objectively compare and prioritize the proposed strategic alternatives. QSPM combines previously identified internal and external factors, including strengths, weaknesses, opportunities, and threats, and evaluates the relative attractiveness of each strategy using the Total Attractiveness Score (TAS). Each strategy was scored based on how effectively it responds to the key factors influencing agrotourism development in Sigapiton Village. From the SWOT analysis and input from key informants, four main strategies were proposed:

- Strategy 1: Improvement of accessibility and public facilities
- Strategy 2: Optimization of community and youth involvement
- Strategy 3: Development of educational agricultural tourism based on local culture
- Strategy 4: Enhancement of digital promotion and agrotourism branding

The strategy with the highest TAS is recommended as the top priority, as it is considered the most relevant and impactful for supporting sustainable tourism development in the village. The detailed scoring and final ranking of these strategies are presented in the following QSPM table.

Table 3: QSPM Matrix Result

K	Key Factors	W	Str 1		Str 2		Str 3		Str 4	
			A S	TAS	A S	TAS	A S	TAS	A S	TAS
S1	The natural beauty of Lake Toba with its surrounding hills, rice fields, and unspoiled farmland.	0.11	3	0.33	2	0.22	4	0.44	1	0.11
S2	Batak cultural attractions such as traditional houses, ulos weaving, dance studios, and cultural heritage sites	0.10	2	0.20	3	0.30	4	0.40	1	0.10
S3	Digital access and directional aids are available (internet, signal, Google Maps).	0.06	3	0.18	2	0.12	3	0.18	4	0.24
S4	Nature tourism packages are available (trekking, exploration, photography) with clear schedules and costs.	0.05	2	0.10	2	0.10	3	0.15	3	0.15
S5	The diversity of agricultural products is suitable for educational agriculture-based tourism.	0.11	2	0.22	2	0.22	4	0.44	1	0.11
W1	Village road access is poor and unsafe.	0.11	4	0.44	1	0.11	1	0.11	1	0.11
W2	Cultural and agricultural attractions are not yet fully utilized.	0.08	2	0.16	3	0.24	4	0.32	1	0.08
W3	Public facilities are still inadequate (toilets, places of worship, rest areas, trash bins).	0.05	4	0.20	2	0.10	2	0.10	1	0.05
W4	Agricultural and cultural tour packages are not yet available, and promotion is still minimal.	0.08	2	0.16	2	0.16	4	0.32	4	0.32

K	Key Factors	W	Str 1		Str 2		Str 3		Str 4	
			A S	TAS	A S	TAS	A S	TAS	A S	TAS
W5	There is no interactive tourism involving the community & agriculture yet.	0.06	1	0.06	3	0.18	4	0.24	1	0.06
W6	Information centers, security, and emergency services are not yet available.	0.05	4	0.20	1	0.05	1	0.05	1	0.05
W7	Community involvement in tourism is still limited.	0.06	1	0.06	4	0.24	3	0.18	1	0.06
O1	Development of agricultural and cultural tourism packages (farming activities, ulos weaving, tortor dance).	0.14	2	0.28	2	0.28	4	0.56	1	0.14
O2	Digital promotion through social media, brochures, and websites to reach a wider audience.	0.12	2	0.24	1	0.12	2	0.24	4	0.48
O3	Collaboration with government and private sectors for tourism infrastructure and facilities development.	0.12	4	0.48	1	0.12	1	0.12	2	0.24
T1	Competition with other more developed tourist villages.	0.11	1	0.11	2	0.22	3	0.33	1	0.11
T2	Risk of environmental damage due to unsustainable tourism.	0.10	2	0.20	2	0.20	3	0.30	1	0.10
T3	Limited interaction between tourists and locals reduces the authentic experience.	0.10	1	0.10	3	0.30	4	0.40	1	0.10

K	Key Factors	W	Str 1		Str 2		Str 3		Str 4	
			A S	TAS	A S	TAS	A S	TAS	A S	TAS
TOTAL			4.56		4.53		5.17		4.18	

[Source: Researcher's Analysis]

Based on the QSPM results, the strategy with the highest Total Attractiveness Score (TAS) is Strategy 3: Development of Educational Agricultural Tourism Packages Based on Local Culture, with a score of 5.17. This strategy is considered the most attractive and suitable for Sigapiton Village's agrotourism development. It optimizes local natural and cultural potentials such as farming activities, ulos weaving, and tortor performances. The educational approach offers tourists meaningful experiences while supporting the preservation of local wisdom. This priority strategy is supported by previous studies, such as Rai *et al.* (2017) in Buahan Kaja Village, Bali, which showed the success of packaging agricultural and cultural activities into popular educational tourism that empowers communities. Similarly, Handayani (2016) in Pentingsari Village, Sleman, emphasized the importance of tourist involvement in traditional farming as both an educational tourism form and cultural preservation.

The next highest scoring strategy is Strategy 1: Improvement of Accessibility and Public Facilities, with a TAS of 4.56. Improving basic infrastructure like roads, public toilets, places of worship, and security services is crucial for enhancing tourist comfort. This strategy also supports the destination's image and complements the main strategy to attract more visitors. Suwarsito *et al.* (2022) in Sambirata Village, Banyumas, found that successful agrotourism strongly depends on adequate infrastructure, which requires collaboration among the community, village government, and external parties.

Strategy 2: Optimization of Community and Youth Involvement ranks third with a TAS of 4.53. Active community participation, especially by the youth, is vital for creating inclusive and sustainable tourism. Empowering locals directly allows the village to develop authentic community-based tourism, strengthen the local economy, and preserve culture. This is supported by Priambodo & Setyawan (2024) in Samiran Village, Boyolali, who showed that active youth involvement in educational tourism management improves service quality and sustainability. Nurcholis (2021) also highlighted the synergy between agriculture, culture, and local community participation in coffee-based tourism in Kulon Progo, resulting in authentic and sustainable tourism experiences.

Strategy 4: Enhancement of Digital Promotion and Agrotourism Branding is ranked fourth with a TAS of 4.18. Although slightly lower, this strategy remains important to expand marketing reach and increase destination attractiveness, especially among digitally active young tourists. It works best when supported by the other strategies, as digital promotion is more effective with ready and quality tourism products. Maulana *et al.* (2024) confirmed that digital promotion through social media and online platforms is key to reaching broader markets, increasing visibility, and strengthening the image of emerging agrotourism destinations. In conclusion, the strategies proposed in this study are not only based on SWOT analysis and QSPM calculations but are also reinforced by relevant previous research. This strengthens the validity and reliability of the strategic recommendations for supporting sustainable agrotourism development in Sigapiton Village.

CONCLUSION

This study aimed to identify the potential and formulate appropriate strategies for the development of agrotourism to support tourism growth in Sigapiton Village, Toba Regency. Using the 6A framework (Attractions, Accessibility, Amenities, Available Packages, Activities, and Ancillary Services), SWOT, and QSPM analysis, the findings indicate that Sigapiton possesses significant agrotourism potential that can be developed in a sustainable manner. The village's main attractions include scenic landscapes overlooking Lake Toba, active farmlands cultivating coffee, chili, and corn, as well as the preserved Batak Toba culture. However, challenges remain in the form of limited accessibility due to inadequate road infrastructure and public transportation, as well as insufficient basic tourism facilities such as public toilets, eateries, and information centers. Available tour packages are under-promoted, and agricultural-based activities have yet to be formally packaged as tourism products. Support from ancillary services, including tourism organizations and local government, also requires strengthening. The QSPM analysis identified four priority strategies: (1) Development of educational agricultural tourism packages rooted in local culture. (2) Improvement of accessibility and public facilities through collaboration with external stakeholders. (3) Optimization of community and youth involvement to ensure tourism sustainability. (4) Enhancement of digital promotion and branding of agrotourism.

Implementing these strategies is expected to strengthen Sigapiton's position as a competitive and sustainable agrotourism destination. The findings provide practical implications for local governments, tourism stakeholders, and communities, highlighting the importance of collaborative efforts, infrastructure improvements, cultural preservation, and innovative marketing in rural tourism development.

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