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Tourism Area Life Cycle Model: an Overview of Samosir Island

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ABSTRAK
Pengembangan pariwisata di Pulau Samosir memiliki potensi signifikan karena daya tarik alamnya, warisan budaya, dan posisi strategisnya di kawasan pariwisata Danau Toba di Sumatra Utara, Indonesia. Namun, keberlanjutan pengembangan pariwisata membutuhkan pemahaman tentang tahap pengembangan destinasi, tantangan, dan strategi pengelolaan masa depan. Studi ini bertujuan untuk mengkaji perkembangan pariwisata di Pulau Samosir menggunakan model Tourism Area Life Cycle (TALC) yang diusulkan oleh Butler (1980). Penelitian ini menggunakan pendekatan kualitatif deskriptif. Data dimaksudkan untuk dikumpulkan melalui observasi lapangan, wawancara mendalam dengan pemangku kepentingan terkait, serta dokumentasi yang melibatkan perwakilan pemerintah daerah, pelaku bisnis pariwisata, pemimpin komunitas, dan penduduk lokal. Data dianalisis melalui kondensasi data, tampilan data, serta pengambilan dan verifikasi kesimpulan. Analisis ini berfokus pada enam tahap model TALC: eksplorasi, keterlibatan, pembangunan, konsolidasi, stagnasi, serta penurunan atau peremajaan kembali. Selain itu, studi ini meneliti daya saing destinasi, partisipasi komunitas, infrastruktur pariwisata, serta keberlanjutan lingkungan dan budaya. Kerangka kerja TALC menyediakan dasar analitis untuk memahami perkembangan pariwisata di Pulau Samosir dan mengidentifikasi potensi tantangan dalam menjaga daya saing destinasi. Studi ini menyoroti pentingnya manajemen tujuan tujuan yang terintegrasi, peningkatan layanan dan infrastruktur pariwisata, partisipasi aktif komunitas, serta pelestarian lingkungan dan budaya. Aspek-aspek ini sangat penting untuk mendukung pengembangan pariwisata berkelanjutan dan memperkuat posisi Pulau Samosir sebagai destinasi pariwisata yang kompetitif.

ABSTRACT
Tourism development on Samosir Island has significant potential due to its natural attractions, cultural heritage, and strategic position within the Lake Toba tourism area in North Sumatra, Indonesia. However, the sustainability of tourism development requires an understanding of the destination's development stage, challenges, and future management strategies. This study aims to examine tourism development on Samosir Island using the Tourism Area Life Cycle (TALC) model proposed by Butler (1980). This research employs a descriptive qualitative approach. Data are intended to be collected through field observations, in-depth interviews with relevant stakeholders, and documentation involving local government representatives, tourism business operators, community leaders, and local residents. The data are analyzed through data condensation, data display, and conclusion drawing and verification. The analysis focuses on the six stages of the TALC model: exploration, involvement, development, consolidation, stagnation, and decline or rejuvenation. In addition, the study examines destination competitiveness, community participation, tourism infrastructure, and environmental and cultural sustainability. The TALC framework provides an analytical basis for understanding tourism development on Samosir Island and identifying potential challenges in maintaining destination competitiveness. The study highlights the importance of integrated destination management, improved tourism services and infrastructure, active community participation, and environmental and cultural preservation. These aspects are essential for supporting sustainable tourism development and strengthening Samosir Island's position as a competitive tourism destination.

INTRODUCTION

Tourism is one of the strategic sectors that has an important role in encouraging regional economic growth, improving community welfare, creating jobs, and strengthening regional competitiveness. The development of the tourism sector is not only related to increasing the number of tourist visits, but also includes destination management, infrastructure development, environmental conservation, local community empowerment, and sustainability of tourist attractions. In regional economic development, tourism can be a source of new economic growth if it is managed in a planned, integrated, and sustainability-oriented manner. Therefore, understanding the development pattern of a destination is important to determine a tourism management strategy that is in accordance with regional conditions and characteristics.

One of the tourism areas that has great potential in Indonesia is Samosir Island which is located in the Lake Toba area, North Sumatra Province. Samosir Island has advantages in the form of natural beauty, hilly panoramas, water areas, Batak cultural wealth, community traditions, and various natural and cultural attractions. The existence of destinations such as Tomok, Ambarita, Tuktuk Siadong, and

other tourist areas makes Samosir Island one of the tourist destinations that has its own attractions for domestic and foreign tourists. This potential not only provides opportunities for the growth of the tourism industry, but also opens opportunities for local communities to develop accommodation, culinary, transportation, handicrafts, and creative economy businesses.

Despite having great tourism potential, the development of the Samosir Island tourist area still faces various challenges. These challenges include equitable distribution of tourism facilities and infrastructure, improving the quality of services, managing environmental cleanliness, human resource development, digital promotion, and the involvement of local communities in tourism economic activities. In addition, the development of tourist destinations that are not followed by adequate management can cause pressure on the environment, socio-cultural changes, and inequality of economic benefits. These conditions show that the success of tourism development is not enough to be measured based on the increase in the number of tourist visits, but also needs to consider the quality of growth, environmental carrying capacity, and the ability of destinations to maintain their competitiveness.

In understanding the dynamics of the development of tourist destinations, one of the approaches that can be used is the Tourism Area Life Cycle (TALC) Model introduced by Butler (1980). This model explains that a tourism area experiences stages of development that resemble the life cycle of a product. Butler identifies six main stages, namely exploration, involvement, development, consolidation, stagnation, and the stages after stagnation which can be in the form of decline or rejuvenation. Each stage has different characteristics based on the development of the number of tourists, investment, community involvement, facility development, and the level of maturity of the destination. This model provides a conceptual framework to understand changes in tourist destinations as well as being the basis for determining long-term tourism management and development policies (Butler, 1980).

The relevance of the use of the TALC model in Indonesian tourism research is strengthened by Lumbanraja's (2012) research entitled Tourism Area Life Cycle in Lake Toba. The study analyzed the level and pattern of development of tourist areas around Lake Toba using the Butler approach. The research involved tourist attractions spread across seven districts in the Lake Toba area, with 195 households and 198 tourists. The results of the study showed that the development of tourist destinations in the Lake Toba area did not fully follow the linear pattern as assumed in the Butler model. Some tourist attractions even experienced an acceleration or surge in the development of the number of tourists. The study also found that the development of destinations is not only influenced by the number of tourist visits, but is related to tourist products and attractions, demographic and economic characteristics of the tourist market, as well as tourism institutional and policy factors. These findings provide an empirical basis that the development of tourism in the Lake Toba area has complex characteristics and requires analysis based on the conditions of each destination.

Another study was conducted by Rodríguez, Parra-López, and Yanes-Estévez (2008) through the study The Sustainability of Island Destinations: Tourism Area Life Cycle and Teleological Perspectives. The Case of Tenerife. The study examines the development of island tourist destinations by integrating the TALC model and sustainability perspectives. The results of the study show that island destinations that have reached the maturity stage face challenges in the form of tourist density, infrastructure development that has the potential to damage natural resources, and pressure on limited resources. This study emphasizes that the development of island tourist destinations requires long-term planning, development control, and sustainability policies so that destinations are able to maintain their attractiveness and competitiveness. The findings are relevant to the characteristics of Samosir Island which has geographical limitations as an archipelago in the middle of Lake Toba.

Furthermore, research on the development of tourism in Langkawi Island, Malaysia, conducted using the Tourism Area Life Cycle Model approach shows that the destination has passed four stages of development and is in the consolidation stage. The research found that the government has an important role as a driver and catalyst in tourism development through investment, policy, and facility development. The results of this study show that government involvement and policy consistency are important factors in encouraging changes in the development stages of tourist destinations. The experience of Langkawi can be a comparison in analyzing the role of government policies in the development of tourism on Samosir Island (The tourism life cycle: An overview of Langkawi Island, 2014).

Gore et al.'s (2021) research entitled Empirically Mapping the Evolutionary Phases of Tourism Area Life Cycle (TALC): The Case of Goa, India also made an important contribution to the development of the TALC study. The study used data on domestic and foreign tourist visits during the period 1962–2018 to identify the stages of development of Goa's tourist destinations. The results of the study showed that the development patterns of tourism between domestic and foreign tourists are not always the same. The study also found indicators that show symptoms of stagnation and decline in destination development, as well as the importance of tourism planning in anticipating changes in the destination life cycle. These

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findings show that TALC analysis needs to consider differences in tourist market characteristics and destination development over a certain period of time.

Meanwhile, Šulc (2015) through the research Tourism Development and Stagnation of Korčula Island in the Model of the Tourism Area Life Cycle analyzed the development of tourism on Korčula Island in the period 1964–2012. The study found that the development of island tourism experienced two different cycles. The first cycle was dominated by marine and beach tourism products which then experienced a decrease in attractiveness and competitiveness. Furthermore, there was a tourism renewal through the redevelopment of coastal tourism, but the destination again showed symptoms of stagnation. This study emphasizes the importance of diversifying tourism products, developing cultural heritage, and alternative tourism activities to avoid dependence on one type of tourist attraction. The results of the study are relevant for Samosir Island in developing the potential of natural and cultural tourism in an integrated manner so that it does not depend only on one type of tourism product.

Almeida and Correia (2010) in the study Tourism Development in Madeira: An Analysis Based on the Life Cycle Approach also examined the development of tourism on Madeira Island using the destination life cycle approach. The study used an econometric approach to tourism data for the period 1976–2006. The results of the study show that Madeira is approaching a stagnation stage, but the positive image of the destination and its industrial development characteristics allows the maturity stage to last for a long time. These findings provide an understanding that each tourist destination has a different development pattern and does not always follow the TALC stage rigidly. Thus, the analysis of the development of Samosir Island needs to pay attention to geographical characteristics, tourist attractions, market conditions, and applicable tourism development policies.

On the other hand, Hovinen (2002) through the research Revisiting the Destination Lifecycle Model shows that in one tourist destination there can be growth, stagnation, decline, and renewal at the same time. The study suggests that the development of destinations does not always take place sequentially and linearly as depicted in the traditional life cycle model. This condition shows that a tourist area can have objects that are growing rapidly, while other objects experience a decrease in attractiveness or need to be updated. Therefore, the TALC approach needs to be applied by considering the differences in characteristics between tourist attractions in one destination area.

Based on these previous studies, it can be understood that the Tourism Area Life Cycle Model is a relevant approach to analyze the development of tourist destinations, especially island tourist areas and destinations that have distinctive geographical and cultural characteristics. The research of Lumbanraja (2012) provides empirical evidence regarding the complexity of the development of tourism in the Lake Toba area, while the research of Rodríguez et al. (2008), Almeida and Correia (2010), and Šulc (2015) shows that island destinations face their own challenges in maintaining attractiveness, environmental sustainability, and tourism competitiveness. Furthermore, the research of Gore et al. (2021) emphasizes the importance of using historical data on tourist visits in identifying the stages of destination development.

THEORETICAL FRAMEWORK

Tourism Development

Tourism development is a multidimensional process involving the improvement of tourism facilities, infrastructure, accessibility, destination attractiveness, service quality, and local community participation. Tourism development is not merely focused on increasing the number of tourist arrivals but also emphasizes the ability of a destination to generate sustainable economic, social, cultural, and environmental benefits. According to Cooper et al. (2008), tourism destination development involves several interconnected components, including attractions, accessibility, amenities, available packages, activities, and ancillary services. These components play an important role in determining destination competitiveness and visitor satisfaction.

Furthermore, tourism development requires coordination among government institutions, private-sector stakeholders, local communities, and tourism organizations. Effective destination management is necessary to ensure that tourism growth contributes to regional economic development while maintaining environmental quality and cultural authenticity. In this context, Samosir Island has considerable opportunities to develop its tourism sector through the integration of natural attractions, Batak cultural heritage, community-based tourism, and local economic activities. Therefore, tourism development should be understood as a continuous process that requires strategic planning, institutional coordination, infrastructure investment, and sustainable resource management.

Tourism Area Life Cycle (TALC) Model

The Tourism Area Life Cycle (TALC) Model was introduced by Butler (1980) to explain the evolutionary process of tourism destinations over time. This model suggests that tourism destinations experience several stages of development characterized by changes in tourist arrivals, investment, infrastructure, destination management, and local community involvement. Butler's model provides a theoretical foundation for understanding how tourism destinations emerge, grow, reach maturity, experience stagnation, and potentially undergo decline or rejuvenation.

According to Butler (1980), tourism destinations generally experience six main stages, namely exploration, involvement, development, consolidation, stagnation, and post-stagnation, which may lead to either decline or rejuvenation. Each stage reflects different characteristics of destination development and requires specific management strategies. The application of this model enables researchers to evaluate the development position of a destination and identify appropriate strategies for maintaining tourism competitiveness and sustainability.

Exploration Stage

The exploration stage represents the initial phase of tourism destination development, during which a destination begins to attract a relatively small number of visitors. Tourists are generally attracted by unique natural landscapes, cultural experiences, and recreational opportunities. At this stage, tourism facilities and infrastructure are still limited, accessibility may be relatively difficult, and tourism activities have not yet developed into a significant economic sector. Local communities generally maintain their traditional lifestyles, while interactions between visitors and residents remain limited.

In the context of Samosir Island, the exploration stage can be used to understand the early development of tourism attractions based on natural landscapes, Lake Toba scenery, traditional Batak culture, and local community experiences. The uniqueness of these resources represents the initial foundation for tourism development. Understanding this stage is important because the natural and cultural characteristics of a destination often become the primary attractions that determine its future tourism potential.

Involvement Stage

The involvement stage occurs when local communities begin to recognize the economic opportunities generated by tourism activities. Community participation gradually increases through the provision of accommodation, restaurants, transportation services, handicrafts, and other tourism-related businesses. At this stage, tourism facilities begin to develop, and local governments may introduce promotional activities, basic infrastructure improvements, and tourism-supporting policies.

Community involvement becomes an important characteristic of this stage because local economic activities increasingly depend on tourism demand. In Samosir Island, local residents have opportunities to participate in tourism development through accommodation businesses, culinary services, traditional handicrafts, cultural performances, and local tourism management. The involvement of local communities is essential to ensure that tourism development provides direct economic benefits and strengthens the relationship between tourism activities and the local economy.

Development Stage

The development stage is characterized by rapid growth in tourist arrivals, increased investment, and significant improvements in tourism infrastructure and facilities. At this stage, external investors and tourism businesses begin to play a more prominent role in destination development. Tourism products become more diversified, accommodation facilities increase, and promotional activities become more intensive. The destination also experiences greater recognition in domestic and international tourism markets.However, rapid tourism growth may generate environmental pressure, cultural changes, increased competition for local resources, and challenges in maintaining service quality. In the context of Samosir Island, this stage can be examined through the expansion of accommodation facilities, transportation services, tourism infrastructure, investment activities, and the development of natural and cultural attractions. Therefore, effective destination management is necessary to ensure that tourism growth remains balanced with environmental protection and community welfare.

Consolidation Stage

The consolidation stage occurs when tourism becomes an established and important economic sector within a destination. Tourist arrivals remain relatively high, and tourism businesses become increasingly integrated into the regional economic structure. At this stage, the destination has developed relatively stable tourism facilities, established market recognition, and stronger institutional involvement. Tourism activities become an important source of income and employment for local communities.

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Nevertheless, increasing tourism intensity may create challenges related to environmental sustainability, destination quality, infrastructure capacity, and the distribution of economic benefits. In Samosir Island, the consolidation stage would be reflected in the extent to which tourism has become an established economic activity, supported by adequate infrastructure, stable tourist demand, and effective institutional coordination. Continuous improvements in tourism services and destination management are essential to maintain competitiveness during this stage.

Stagnation Stage

The stagnation stage occurs when a tourism destination approaches its maximum carrying capacity and begins to experience a slowdown in development. Tourist arrivals may stabilize or fluctuate, while the destination may experience declining attractiveness due to environmental degradation, infrastructure limitations, overcrowding, or insufficient tourism innovation. At this stage, the destination may face increasing competition from emerging tourism destinations offering more innovative and attractive tourism experiences.

For Samosir Island, identifying potential stagnation indicators is important for anticipating challenges associated with tourism sustainability and destination competitiveness. Factors such as limited infrastructure capacity, inadequate environmental management, insufficient product diversification, and declining service quality may affect the destination's ability to maintain its attractiveness. Therefore, tourism stakeholders need to implement strategic improvements and innovations to prevent stagnation from developing into a prolonged decline.

Post-Stagnation Stage: Decline or Rejuvenation

Following the stagnation stage, a tourism destination may experience two possible development trajectories, namely decline or rejuvenation. The decline stage occurs when a destination experiences decreasing attractiveness and competitiveness. Tourist arrivals may decline, tourism businesses may lose market share, and existing tourism facilities may become less competitive compared with alternative destinations. Without appropriate intervention, the destination may gradually lose its position in the tourism market.

In contrast, the rejuvenation stage represents an effort to renew the destination through innovation, diversification, investment, infrastructure improvements, and the development of new tourism products. Rejuvenation may involve promoting cultural heritage, developing ecotourism, strengthening community-based tourism, and implementing sustainable destination management. For Samosir Island, rejuvenation strategies may include strengthening Batak cultural tourism, improving environmental management, developing creative tourism products, expanding digital promotion, and enhancing the quality of tourism services. These strategies are important to maintain the destination's attractiveness and ensure long-term tourism sustainability.

Tourism Destination Competitiveness

Tourism destination competitiveness refers to the ability of a destination to attract visitors, provide quality tourism experiences, maintain its market position, and generate sustainable benefits for local communities. Ritchie and Crouch (2003) explain that destination competitiveness is influenced by core resources and attractors, supporting factors and resources, destination management, destination policy and planning, and qualifying determinants. These components determine the ability of a tourism destination to compete with other destinations while maintaining its long-term attractiveness.

In the context of Samosir Island, destination competitiveness can be examined through the uniqueness of natural landscapes, Lake Toba scenery, Batak cultural heritage, accessibility, tourism infrastructure, destination management, promotional activities, and local community participation. The availability of quality accommodation, transportation, restaurants, public facilities, and tourism information also contributes to visitor satisfaction. Furthermore, the ability of local communities and tourism stakeholders to develop innovative tourism products is important for strengthening destination competitiveness. Therefore, competitiveness is closely related to the ability of Samosir Island to maintain its distinctive tourism identity while responding to changes in tourist preferences and market conditions.

Sustainable Tourism Development

Sustainable tourism development refers to tourism activities that consider economic, social, cultural, and environmental dimensions while meeting the needs of present and future generations. According to the United Nations World Tourism Organization (UNWTO), sustainable tourism should consider its current and future economic, social, and environmental impacts while addressing the needs of visitors, the tourism industry, the environment, and host communities. This approach emphasizes that

tourism growth must be balanced with the protection of natural resources, cultural heritage, and community welfare.

Economic sustainability involves increasing local income, creating employment opportunities, supporting micro and small enterprises, and strengthening the contribution of tourism to regional economic development. In Samosir Island, tourism activities can support local economic growth through accommodation businesses, culinary enterprises, transportation services, handicrafts, and other tourism-related activities. The development of local enterprises is important to ensure that tourism benefits are distributed more widely among the community.

Social and cultural sustainability emphasizes community participation, preservation of Batak cultural heritage, protection of local traditions, and equitable distribution of tourism benefits. Samosir Island possesses distinctive cultural resources that can become important tourism attractions. However, tourism development should not undermine the authenticity of local traditions or marginalize community interests. Therefore, the involvement of local communities in tourism planning and management is essential to maintain cultural identity and strengthen social sustainability.

Environmental sustainability focuses on environmental protection, waste management, water resource conservation, ecosystem preservation, and the responsible utilization of natural tourism resources. As an island located within Lake Toba, Samosir Island requires careful environmental management to maintain the quality of its natural attractions. Increasing tourism activities should be accompanied by adequate waste management, protection of water resources, conservation of landscapes, and control of environmental pressures. Integrating economic, social, cultural, and environmental dimensions is therefore essential to ensure sustainable tourism development on Samosir Island.

RESEARCH METHOD

Research Approach

This study employs a qualitative descriptive research approach to examine tourism development on Samosir Island through the Tourism Area Life Cycle (TALC) Model proposed by Butler (1980). A qualitative approach is considered appropriate because this research aims to understand the characteristics, processes, challenges, and dynamics of tourism destination development based on the perspectives of relevant stakeholders and the actual conditions of the research area. Rather than focusing on statistical measurements, this study emphasizes an in-depth understanding of tourism development through observations, interviews, and documentary analysis. The qualitative approach allows the researcher to explore how tourism facilities, infrastructure, investment activities, local community participation, destination management, and environmental sustainability contribute to the development of Samosir Island as a tourism destination.

Research Location and Time

This research is conducted on Samosir Island, located in the Lake Toba tourism area of North Sumatra Province, Indonesia. Samosir Island is selected as the research location because of its considerable tourism potential, which includes natural attractions, Lake Toba landscapes, Batak cultural heritage, traditional community activities, and various tourism businesses. The island provides an appropriate research setting for examining the development characteristics of an island tourism destination using the Tourism Area Life Cycle Model. The research focuses on selected tourism attractions, accommodation facilities, tourism-supporting infrastructure, local businesses, and destination management activities.

The research is planned to be conducted during November and December 2026. This period is allocated for field observations, in-depth interviews, documentation, data analysis, and interpretation of research findings. Historical tourism information and relevant institutional documents will also be examined to understand the development of tourism on Samosir Island over time.

Research Subjects and Informants

The research subjects consist of individuals and stakeholders who are directly or indirectly involved in tourism development on Samosir Island. Informants are selected using purposive sampling, which involves selecting participants based on their knowledge, experience, responsibilities, and involvement in tourism activities. The informants may include representatives of the local tourism government, tourism destination managers, tourism business owners, community leaders, and local residents involved in tourism-related economic activities.

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The selection of informants is based on their ability to provide relevant information regarding tourism development, infrastructure conditions, investment activities, community participation, tourism management, and environmental sustainability. The number of informants is not determined solely by statistical considerations but is adjusted according to the relevance and depth of the information obtained. Interviews may continue until the information collected is sufficiently comprehensive and no substantially new themes emerge.

Types and Sources of Data

This study uses primary and secondary data to obtain comprehensive information regarding tourism development on Samosir Island. Primary data are collected directly through field observations and in-depth interviews with selected informants. These data provide information about the actual conditions of tourism attractions, infrastructure, tourism services, community involvement, investment activities, destination management, and environmental conditions.

Secondary data are obtained from official documents, government reports, tourism development plans, statistical publications, academic journals, books, and other relevant institutional sources. These documents are used to complement the primary data and provide historical and institutional perspectives on tourism development. Relevant sources include publications from the Central Bureau of Statistics (BPS), the Samosir Regency Government, the Regional Tourism Office, and other authorized institutions.

Data Collection Techniques

Data collection is conducted through observation, in-depth interviews, and documentation. Observation is carried out directly at selected tourism destinations on Samosir Island to examine tourism attractions, accessibility, infrastructure, accommodation facilities, public services, environmental cleanliness, and tourism-related economic activities. Through observation, the researcher can identify the actual conditions of tourism development and compare them with information provided by the informants.

In-depth interviews are conducted with selected informants to obtain detailed information regarding tourism development policies, destination management, tourism investment, community participation, tourism promotion, environmental challenges, and future development strategies. The interviews are conducted using semi-structured questions to provide flexibility for informants to explain their experiences, opinions, and perspectives. This technique allows the researcher to obtain more comprehensive information about the dynamics of tourism development on Samosir Island.

Documentation is conducted by collecting and examining relevant written materials, including government reports, tourism statistics, regional development plans, policy documents, research publications, photographs, and other supporting records. Documentation is important for understanding the historical development of tourism and verifying information obtained through observations and interviews. The combination of these three techniques provides a comprehensive basis for qualitative analysis.

Research Focus and Analytical Indicators

The research focuses on examining tourism development on Samosir Island based on the Tourism Area Life Cycle Model proposed by Butler (1980). The analysis is supported by several indicators, including tourism attractions, tourist arrivals, infrastructure development, investment activities, local community participation, destination management, tourism competitiveness, and environmental and cultural sustainability. These indicators are used as analytical guidelines to understand the characteristics of tourism development rather than as statistical variables for quantitative testing.

Tourism attractions and tourist arrivals are examined to understand the development of destination attractiveness and changes in tourism demand. Infrastructure and investment are analyzed to identify improvements in accommodation, transportation, accessibility, public facilities, and tourism-related business activities. Local community participation is examined through the involvement of residents in tourism services, cultural activities, local enterprises, and destination management.

Furthermore, destination management and competitiveness are analyzed by examining tourism policies, institutional coordination, service quality, promotional activities, and the ability of Samosir Island to maintain its tourism appeal. Environmental and cultural sustainability are examined through environmental protection, waste management, conservation of natural resources, preservation of Batak cultural heritage, and the involvement of local communities in maintaining cultural identity. These analytical indicators provide a comprehensive understanding of the factors influencing tourism development on Samosir Island.

Data Analysis Techniques

Data analysis follows the interactive qualitative analysis model developed by Miles, Huberman, and Saldaña (2014), which consists of three interconnected activities: data condensation, data display, and conclusion drawing and verification.

Data condensation is conducted by selecting, focusing, simplifying, and organizing information obtained from interviews, observations, and documentation. Information that is relevant to the research objectives is categorized according to the main themes, including tourism development, infrastructure, investment, community participation, destination management, competitiveness, and sustainability. This process helps the researcher identify important information and eliminate data that are not directly related to the research focus.

Data display is conducted by organizing the collected information into descriptive narratives, thematic categories, and supporting matrices where necessary. The findings from interviews, observations, and documents are presented systematically to illustrate the conditions and dynamics of tourism development on Samosir Island. This process enables the researcher to identify relationships among different aspects of tourism development and compare the perspectives of various stakeholders.

Conclusion drawing and verification are conducted by interpreting the research findings and examining their consistency with the collected evidence. The findings are subsequently analyzed using Butler's (1980) Tourism Area Life Cycle Model to identify the development characteristics of Samosir Island in relation to the exploration, involvement, development, consolidation, stagnation, and post-stagnation stages. The final interpretation considers the overall evidence obtained from multiple sources rather than relying on a single indicator. This process is intended to provide a comprehensive qualitative assessment of tourism development on Samosir Island.

Data Validity and Trustworthiness

To ensure the credibility and trustworthiness of the research findings, this study applies data triangulation by comparing information obtained from observations, in-depth interviews, and documentary sources. The information provided by government representatives, tourism business operators, destination managers, and local communities is compared with relevant institutional documents and field observations. This process helps the researcher identify similarities, differences, and consistency among the available sources.

Source triangulation is also applied by obtaining information from different categories of informants who have varying roles and experiences in tourism development. Furthermore, the researcher verifies interpretations by examining whether the conclusions are supported by sufficient evidence from the collected data. These procedures are intended to strengthen the credibility, dependability, and confirmability of the research findings.

Research Procedures

The research is conducted through several systematic stages. The first stage involves identifying the research problem, reviewing relevant literature, and establishing the theoretical foundation based on the Tourism Area Life Cycle Model. The second stage involves determining the research location, selecting informants, and preparing observation guidelines and interview questions.

The third stage involves collecting primary and secondary data through field observations, in-depth interviews, and documentation. The fourth stage involves organizing, condensing, displaying, and interpreting the collected data using the qualitative analysis model of Miles, Huberman, and Saldaña (2014). The fifth stage involves analyzing the research findings in relation to Butler's (1980) Tourism Area Life Cycle Model to identify the development characteristics of Samosir Island. The final stage involves formulating conclusions and recommendations for sustainable tourism development based on the research findings.

RESULT AND DISCUSSION

Overview of Tourism Development on Samosir Island

Samosir Island is one of the prominent tourism destinations in North Sumatra Province, Indonesia, located within the Lake Toba tourism area. The island possesses considerable tourism potential, supported by its natural landscapes, lake scenery, mountainous surroundings, cultural heritage, and traditional Batak community life. Several tourism attractions, including Tomok, Ambarita, Tuktuk Siadong, and other tourism areas, provide diverse experiences for domestic and international visitors. These attractions represent important resources for the development of nature-based tourism, cultural

tourism, recreational tourism, and community-based tourism. The combination of natural and cultural attractions makes Samosir Island an important destination within the tourism development of North Sumatra.

Tourism development on Samosir Island is supported by the interaction between natural resources, cultural identity, tourism infrastructure, local businesses, and government involvement. Accommodation services, restaurants, transportation, handicrafts, and other tourism-related businesses provide economic opportunities for local communities. Tourism activities also create opportunities for local entrepreneurs to develop products and services that support visitor experiences. However, the development of these facilities and services needs to be accompanied by effective destination management, environmental protection, and improvements in service quality. Therefore, tourism development on Samosir Island should not only emphasize the number of visitors but also consider the ability of local institutions and communities to manage tourism resources sustainably.

Analysis of Samosir Island Based on the Tourism Area Life Cycle Model

The Tourism Area Life Cycle Model developed by Butler (1980) provides a theoretical framework for examining the development of tourism destinations through six major stages: exploration, involvement, development, consolidation, stagnation, and post-stagnation. Each stage represents different characteristics of tourism development based on tourist activities, infrastructure, investment, community participation, and destination management. Applying this model to Samosir Island provides an opportunity to understand how natural attractions, cultural resources, and tourism-related economic activities contribute to the evolution of the destination.

The analysis of Samosir Island requires consideration of its geographical characteristics and the diversity of tourism attractions within the region. Different tourism locations may experience different development patterns depending on their accessibility, attractiveness, infrastructure, and level of community involvement. Therefore, the application of the TALC Model should not assume that all tourism attractions on Samosir Island are necessarily at the same development stage. A comprehensive assessment should consider information from government institutions, tourism business operators, destination managers, and local communities. Through this approach, the TALC Model can provide a basis for identifying tourism development characteristics and formulating appropriate destination management strategies.

Exploration Stage

The exploration stage represents the initial phase of tourism destination development, characterized by the presence of relatively small numbers of visitors who are attracted by unique natural landscapes, cultural heritage, and traditional community experiences. At this stage, tourism facilities and infrastructure are generally limited, while tourism activities have not yet become a significant component of the local economy. Interactions between visitors and local communities are relatively informal, and the destination's attractiveness is primarily determined by its natural and cultural uniqueness.

In the context of Samosir Island, the exploration stage can be understood through the early attractiveness of Lake Toba scenery, traditional Batak villages, historical sites, and local cultural practices. These resources provide the foundation for the development of tourism activities and contribute to the island's identity as a distinctive tourism destination. The preservation of natural landscapes and cultural heritage is particularly important because these resources represent the fundamental attractions that distinguish Samosir Island from other destinations. Understanding the exploration stage also helps explain how local tourism resources become recognized and gradually integrated into regional tourism development.

Involvement Stage

The involvement stage occurs when local communities begin to recognize tourism as an economic opportunity and gradually participate in tourism-related activities. Residents may become involved in providing accommodation, restaurants, transportation, handicrafts, cultural performances, and other visitor services. At this stage, tourism activities begin to create additional sources of income, while local governments may introduce promotional activities and improve basic tourism infrastructure. Community participation becomes an important characteristic because residents increasingly contribute to the provision and development of tourism services.

On Samosir Island, community involvement can be examined through the participation of local residents in accommodation businesses, culinary enterprises, traditional handicrafts, cultural activities, and tourism management. These activities provide opportunities to strengthen local entrepreneurship and increase the economic contribution of tourism to households. Furthermore, community involvement supports the preservation of Batak cultural heritage by creating opportunities for traditional practices to

become part of authentic tourism experiences. Nevertheless, the extent of community participation and the distribution of tourism benefits need to be examined through field observations and interviews to determine the actual contribution of local residents to destination development.

Development Stage

The development stage is characterized by increasing tourist arrivals, greater investment, and significant improvements in tourism facilities and infrastructure. At this stage, external investors and tourism businesses may become more involved in destination development, while promotional activities become more intensive. Tourism products are diversified to meet the expectations of different visitor segments, and the destination gradually gains wider recognition in domestic and international tourism markets. Infrastructure improvements, accommodation development, and transportation services become important supporting factors in this stage.

In the context of Samosir Island, tourism development can be examined through the expansion of accommodation facilities, restaurants, transportation services, public infrastructure, and the development of natural and cultural attractions. Government policies and private-sector investment play important roles in supporting the growth of tourism activities. However, rapid development may also create environmental pressure, changes in local cultural practices, and challenges in maintaining service quality. Therefore, tourism development needs to be accompanied by effective planning and management to ensure that economic growth does not undermine the natural and cultural resources that form the foundation of Samosir Island's tourism attractiveness.

Consolidation Stage

The consolidation stage occurs when tourism has become an established and important economic sector within a destination. At this stage, tourism-related businesses are increasingly integrated into regional economic activities, while the destination develops stronger market recognition and more established tourism facilities. Tourism contributes to employment opportunities, household income, and the development of supporting economic activities. Government institutions, tourism organizations, and private businesses also become increasingly important in coordinating destination management and maintaining tourism services.

For Samosir Island, the consolidation perspective is relevant for examining the extent to which tourism has become an established component of the local economy. The assessment should consider the stability of tourist demand, the development of accommodation and transportation facilities, the contribution of tourism businesses, and the effectiveness of government policies. Furthermore, the relationship between tourism growth and community welfare should be considered to determine whether the economic benefits of tourism are distributed among local residents. Maintaining competitiveness during this stage requires continuous improvements in tourism services, infrastructure management, and the quality of destination experiences.

Stagnation Stage

The stagnation stage occurs when a tourism destination approaches its maximum carrying capacity and begins to experience a slowdown in development. Tourist arrivals may become relatively stable or fluctuate, while the destination may face declining attractiveness due to environmental degradation, infrastructure limitations, overcrowding, or insufficient tourism innovation. At this stage, competition from emerging destinations may become stronger, requiring tourism stakeholders to reconsider existing management strategies and tourism products.

In Samosir Island, potential stagnation indicators can be examined through environmental cleanliness, waste management, infrastructure capacity, service quality, tourism product diversification, and the competitiveness of local tourism businesses. Limited innovation and inadequate destination management may reduce visitor satisfaction and weaken the destination's market position. However, the existence of environmental or infrastructure challenges does not automatically indicate that a destination has reached the stagnation stage. Such a classification requires evidence of changes in tourism demand, destination attractiveness, and development performance over time. Therefore, interviews, observations, and historical tourism information are important for determining whether stagnation characteristics are present.

Post-Stagnation Stage: Decline or Rejuvenation

Following the stagnation stage, a tourism destination may experience two possible development trajectories, namely decline or rejuvenation. The decline stage occurs when a destination experiences decreasing attractiveness and competitiveness due to inadequate management, deteriorating facilities, environmental degradation, or insufficient innovation. Under these circumstances, tourist demand may

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weaken, tourism businesses may lose market opportunities, and the destination may gradually become less competitive compared with alternative destinations. Without appropriate intervention, these conditions may negatively affect local economic activities that depend on tourism.

In contrast, the rejuvenation stage represents efforts to restore and strengthen destination attractiveness through innovation, investment, tourism product diversification, infrastructure improvements, and sustainable destination management. For Samosir Island, rejuvenation opportunities may include strengthening Batak cultural tourism, developing ecotourism, improving environmental management, promoting creative economic activities, and expanding digital tourism marketing. Community-based tourism can also strengthen local economic participation while maintaining cultural authenticity. The implementation of these strategies requires collaboration between government institutions, tourism businesses, and local communities to ensure that tourism development remains competitive and sustainable.

Tourism Destination Competitiveness on Samosir Island

Tourism destination competitiveness refers to the ability of a destination to attract visitors, provide quality tourism experiences, maintain its market position, and generate sustainable benefits for local communities. Samosir Island possesses distinctive natural and cultural resources that differentiate it from other tourism destinations. The landscapes of Lake Toba, traditional Batak villages, historical attractions, local culinary products, and cultural experiences provide a strong foundation for tourism market positioning. These resources can be developed into integrated tourism products that combine natural beauty, cultural heritage, recreation, and community experiences.

However, destination competitiveness is not determined solely by the uniqueness of tourism attractions. It is also influenced by accessibility, infrastructure quality, accommodation, transportation, public facilities, tourism information, and visitor services. The ability to provide comfortable and integrated tourism experiences is important for maintaining visitor satisfaction and encouraging repeat visits. Furthermore, digital promotion and collaboration among tourism stakeholders can strengthen the visibility of Samosir Island in domestic and international tourism markets. From the perspective of the TALC Model, competitiveness is closely related to the destination's ability to maintain attractiveness throughout its development cycle. Continuous innovation, service improvements, and effective destination management are therefore necessary to prevent stagnation and support destination rejuvenation.

Community Participation in Tourism Development

Local community participation represents an important component of sustainable tourism development on Samosir Island. Community involvement can be reflected in the establishment of tourism-related businesses, provision of accommodation and culinary services, development of handicrafts, cultural performances, and participation in tourism management activities. These activities create opportunities for local residents to obtain economic benefits from tourism development and strengthen the relationship between tourism growth and regional economic welfare. Local entrepreneurship also contributes to the diversification of tourism products and the development of supporting economic activities.

Furthermore, local communities play an important role in maintaining cultural identity and preserving traditional values. Batak cultural heritage represents one of the distinctive tourism resources of Samosir Island, making community participation essential in protecting cultural authenticity. Residents can contribute by maintaining traditional architecture, preserving local customs, developing cultural performances, and introducing traditional culinary products to visitors. Effective community participation requires institutional support, entrepreneurship development, access to information, and collaboration between government institutions and tourism businesses. Consequently, community empowerment should become an integral part of tourism planning to ensure that tourism development provides inclusive economic benefits while maintaining local cultural identity.

Environmental and Cultural Sustainability

Environmental and cultural sustainability are essential considerations in the development of island tourism destinations. Samosir Island possesses natural resources and cultural heritage that require continuous protection to maintain their attractiveness and long-term value. Tourism development should therefore be accompanied by effective waste management, environmental cleanliness, water resource protection, and conservation of natural landscapes. These activities are particularly important because the quality of Lake Toba and its surrounding ecosystem directly contributes to the tourism appeal of Samosir Island.

Increasing tourism activities without adequate environmental management may create pressure on natural resources and reduce the quality of visitor experiences. Therefore, coordination among

government institutions, local communities, tourism businesses, and visitors is necessary to maintain environmental quality. Cultural sustainability is equally important because Batak traditions, historical sites, traditional architecture, culinary practices, and cultural performances represent important tourism resources. Tourism development should encourage cultural preservation rather than commercialization that undermines local identity. Integrating environmental protection and cultural preservation into destination management can strengthen the long-term sustainability of tourism on Samosir Island.

Discussion of Tourism Area Life Cycle Development

The application of the Tourism Area Life Cycle Model to Samosir Island provides an analytical framework for understanding the relationship between tourism growth, destination management, infrastructure development, community participation, and sustainability. The stages proposed by Butler (1980) demonstrate that tourism destinations require different development strategies depending on their characteristics and level of maturity. This framework also highlights that tourism development is a dynamic process influenced by internal and external factors, including market demand, investment, government policies, community participation, and environmental conditions.

The literature-based analysis indicates that Samosir Island possesses important characteristics of an established tourism destination, particularly in terms of recognized tourism attractions, tourism-related economic activities, and supporting businesses. Nevertheless, the precise classification of its current TALC stage requires empirical evidence from historical tourist arrival records, investment development, infrastructure conditions, and stakeholder interviews. This is important because different tourism attractions within the island may experience different development patterns. The study therefore emphasizes that destination development should not be evaluated solely through the number of visitors but also through destination competitiveness, community participation, institutional coordination, and environmental sustainability. This perspective is consistent with Lumbanraja (2012), who demonstrated that tourism development in the Lake Toba region does not necessarily follow a linear pattern.

Tourism Development Strategies for Samosir Island

Tourism development strategies on Samosir Island should focus on strengthening destination management, improving tourism infrastructure, expanding local community participation, and diversifying tourism products. The development of nature-based tourism, cultural tourism, ecotourism, and community-based tourism can strengthen the uniqueness of Samosir Island and provide alternative experiences for visitors. Improvements in transportation accessibility, public facilities, accommodation quality, tourism information, and digital promotion can also contribute to better visitor experiences and destination competitiveness.

Environmental protection and cultural preservation should remain central priorities in tourism development planning. Effective waste management, conservation of natural resources, protection of Lake Toba's water quality, and preservation of Batak cultural heritage are important elements in maintaining destination sustainability. In addition, strengthening institutional coordination, local entrepreneurship, and collaboration among government institutions, tourism businesses, and community organizations can increase the effectiveness of destination management. Through integrated planning and stakeholder collaboration, Samosir Island has opportunities to strengthen its position as a competitive and sustainable tourism destination while ensuring that tourism development provides long-term benefits for local communities.

CONCLUSION AND IMPLICATIONS

Conclusion

This study highlights the importance of the Tourism Area Life Cycle (TALC) Model proposed by Butler (1980) in understanding tourism development on Samosir Island, North Sumatra, Indonesia. Samosir Island possesses considerable tourism potential through its natural landscapes, Lake Toba scenery, Batak cultural heritage, historical attractions, and community-based tourism activities. These resources provide a strong foundation for developing the island as a competitive tourism destination. However, tourism development requires more than increasing tourist arrivals; it also involves infrastructure improvements, tourism investment, effective destination management, local community participation, and environmental protection.

The TALC Model provides a conceptual framework for examining tourism destination development through six stages: exploration, involvement, development, consolidation, stagnation, and post-stagnation, which may lead to decline or rejuvenation. The analysis emphasizes that tourism development on Samosir Island should be understood through the interaction of tourism attractions, infrastructure, investment, community involvement, destination competitiveness, and sustainability. The

determination of its current development stage requires further empirical verification through field observations, stakeholder interviews, and historical tourism information.

Furthermore, sustainable tourism development on Samosir Island requires an integrated approach that balances economic growth, environmental conservation, and cultural preservation. Collaboration among local governments, tourism businesses, and local communities is essential to strengthen destination management and ensure the equitable distribution of tourism benefits. Therefore, the long-term development of Samosir Island depends on its ability to maintain natural resources, preserve Batak cultural identity, improve tourism services, and develop innovative tourism products. Overall, the TALC Model provides an important analytical foundation for understanding tourism development and formulating sustainable destination management strategies.

Implications

The findings of this study have important implications for tourism management and destination development on Samosir Island. From a practical perspective, local governments need to strengthen tourism planning through improvements in infrastructure, accessibility, public facilities, and destination management. Tourism development policies should also consider the characteristics of individual tourism attractions and their environmental carrying capacity to maintain destination quality and competitiveness.

For tourism business operators, the implications emphasize the importance of improving service quality, developing innovative tourism products, and strengthening digital marketing strategies. The integration of natural attractions, Batak cultural heritage, local culinary products, handicrafts, and community-based tourism experiences can create distinctive tourism products and increase destination attractiveness.

For local communities, active participation in tourism planning, business development, cultural preservation, and environmental management is essential. Community empowerment, entrepreneurship development, and tourism-related skills training can increase local economic opportunities and strengthen community involvement in tourism activities.

From a theoretical perspective, this study contributes to the application of Butler's (1980) Tourism Area Life Cycle Model in the context of island tourism destinations. It highlights the importance of examining tourism development through multiple dimensions, including tourist arrivals, infrastructure, investment, community participation, destination competitiveness, and environmental sustainability. The integration of these dimensions provides a broader understanding of destination development and supports the formulation of adaptive and sustainable tourism strategies for Samosir Island.

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