

Self-Efficacy on Accessibility for Sustainable Tourism in Pangururan District, Samosir Regency, Indonesia

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Abstract. Sustainable tourism has emerged as a major focus in the development of the tourism sector worldwide, considering the impact of tourism activities on local communities and the environment. Accessibility is crucial to tourism growth and might affect visitor interest and trust if not effectively supplied. Accessibility in tourism includes highways, docks, parking, pedestrian walkways, and special needs facilities. This study examines sustainable tourism accessibility self-efficacy in Pangururan District, Samosir Regency, Indonesia. This mixed-methods study sent 268 questionnaires to tourists and locals and interviewed tourist site managers, Pangururan regional administration, tourist village leaders, and the Samosir Regency tourism office. Pangururan District's accessibility fails sustainable tourism requirements. Roads, ports, parking, and pedestrian walkways are well-developed, but special needs facilities are lacking. Thus, more must be done to make tourism places accessible and enjoyable for all tourists, including those with special needs. To improve tourist accessibility in Pangururan District, infrastructure and amenities should be improved.

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1 Introduction

Tourism is one of the development options that most people want because of the benefits that directly or indirectly contribute to increased welfare (Moscardo et al., 2017). Apart from that, tourism is also an important sector in the economic development of a region, which has great potential to increase income and improve the quality of life of local communities. The tourism sector in Indonesia is not only an important part of economic development for the country and its people but also increases the welfare of the local community (Rahman & Ginting, 2020). One of the important assets in the tourism industry is the ability to effectively promote tourist destinations to potential tourists from various countries (Ilkhanizadeh, 2021). Therefore, improvements and development are in as an effort to improve the quality of tourism in each region and create tourism that has a sustainable impact (Musaddad et al., 2019).

Sustainable tourism is a fundamental development paradigm that includes economic, environmental and social dimensions, which have an important role in ensuring the sustainable benefits of tourism. Growth in economic, social and cultural aspects is facilitated by society's social capital which originates from trust, social norms and social networks. Therefore, Sustainable tourism as a concept that is continuously developed. So as to meet the needs of the local community and tourists, as well as provide broad opportunities for development in the future. In the sense of sustainable development, we emphasise meeting the needs of current and future generations. The concept involves several basic principles such as strategies and plans from both the economic, environmental and social sectors. This development is intended to maintain future productivity, protect the natural environment, protect cultural heritage, and uphold balance and justice (Prayitno et al., 2024).

So that these aspects are fulfilled, creating individual satisfaction for tourists who visit the place is part of the success of a tourist spot. The perception of being comfortable and safe, provision of accessibility, and the confidence observed are influential in indicating the satisfaction of local people and tourists alike. Also, self-efficacy constructs personal agency in performing specific goals. Perceived experience in a place affects self-efficacy. Both direct and indirect experience contributed to embedding self-efficacy during travel creating the image of an area that defines place identity (Ginting et al., 2018). Therefore, the four variables comfort, safety, confidence, and accessibility-need to be observed to assess the self-efficacy aspect. Self-efficacy is how an environment can provide the external resources humans need to finish their work (external efficacy). The environment that can fulfil people's necessities, such as facilities and public services, directly will drive good Quality of life in the area (Ginting, 2016).

Self-efficacy has been the focus of several previous studies (Nurlisa Ginting & Uliya safitri, 2020).which

discusses how self-efficacy increases heritage tourism in the historic corridors of Medan City, which examined the comfort and safety of Kuta Lombok Tourism and found that comfort and safety had a big impact on visitors in making travel decisions with the influence of environmental, economic and social factors of the place (Kabu, 2019) which discussed tourist attraction and accessibility on the level of tourist visits to Boti Village in South Central Timor Regency, found that poor accessibility conditions were the main problem in this place and left a negative impression on visitors.

In North Sumatra, several famous tourism locations visited by many tourists are in Samosir Regency. Samosir Regency has tourist objects that have great potential to be developed, both natural tourism and historical and cultural tourism in order to increase regional income and community welfare through synergy between the government, the private sector and the community. Samosir Regency consists of several sub-districts, and one of them is Pangururan District (Saputra & Ali, 2020). However, the development of tourist destinations in Samosir Regency still faces obstacles and problems, especially in implementing policies, so that the management of tourist attractions cannot be realized properly. Meanwhile, determining the criteria and classification of tourist attractions in Samosir Regency is based on Part One of the Decree of the Regent of Samosir Number 474 of 2017 concerning Determining Criteria and Classification of Tourist Attractions in Samosir Regency, and one of them refers to accessibility. This can be a problem that affects self-efficacy at tourist destinations in the area. Therefore, this research aims to determine the value of the self-efficacy on the accessibility for sustainable tourism in Pangururan District, Samosir island as a tourist destination.

Theory review

1.1 Sustainable Tourism

Tourism's significance stems from its ability to generate and sustain jobs, as well as its capacity to express and promote cultural identity and pride. Tourism's economic benefits can be distributed widely, and visitor revenue contributes to the creation and maintenance of new and existing amenities for residents. The concept of sustainability has become a key focus in the literature on tourism, with a wide range of perspectives from policymakers, practitioners, and academics. The issue of community empowerment and local support in community-based tourism studies has received scarce attention.

Sustainable development is the main concept of development and tourism has enormous economic, environmental and social impact in the modern world therefore the development of this sector is linked to all three dimensions of sustainability. Sustainable development of tourism is also a dynamic process that is constantly experiencing new challenges as the applied technologies and consumption aspects of tourism change. Strengthening sustainability in any sector is a

continuous process; thus, it would not be purposeful to limit the following process by certain aspects, and it might be even hazardous. Sustainable tourism is not only about nature preservation or socially responsible business. It is necessary to remember that the theoretical definition of sustainable tourism involves economic, social, and environmental protection dimensions.

Therefore, the aspects considered in the development of sustainable tourism are economic, environmental, and socio-cultural aspects (Suwena, I Ketut dan Widyatmaja, 2017)(Salazar, 2012). The economic aspect focuses on the ability of tourist destinations to provide economic benefits to local communities, one of which is by promoting local businesses as community activities in tourist attractions [12],[13]. The socio-cultural aspect discusses community participation in social activities and the preservation of community culture to maintain the continuity of the identity, interests and local values of the place (Kabu, 2019). The environmental aspect discusses the sustainability of biodiversity in tourist attractions and optimal use of environmental resources it refers to environmental conservation measures around tourist sites and waste management (BPSMP Sangiran, 2018; Kreatif, 2012). In this study, economic, environmental and socio-cultural aspects become variables to discuss sustainable tourism in Pangururan District (Table 1).

Table 1. Sustainable Tourism Variables.

Sustainable Tourism	Indicator
Economic	Local business
Environment	Environment conservation
	Waste management
Socio-cultural	Local participation
	Culture preservations

1.2 Self Efficacy

Self-efficacy refers to the form of a person's thinking in making decisions (Lyon et al., 2017). In this study, self-efficacy discusses an individual's ability to plan and decide on a travel trip. Accessibility is one aspect of self-efficacy (Bramwell et al., 2017). In tourism, accessibility is the movement of tourists from their home region to tourism destinations as well as movement within the tourism destination itself (Purbhastuti, 2017).. Good-quality access to a tourist spot will increase the interest of tourists in visiting that place (Lyon et al., 2017). Accessibility routes to meet tourism needs are, among others, ports, roads, and railroads they also the fulfil for access to destinations and parking spaces as needed (Ginting et al., 2018). Accessible facilities are useful to help and meet the

needs of activities in tourist attractions(Ginting et al., 2018). From this study, it was found that accessibility includes roads, piers, parking lots, pedestrian paths and facilities for the disabled. In this study, roads, piers, parking lots, pedestrian paths and facilities for people with disabilities are indicators of the discussion of accessibility in Pangururan District (Table 2).

Table 2. Accessibility Indicators.

Self-Efficacy	Indicator
Accessibility	Roads
	Piers
	Parking Lots
	Pedestrian Paths
	Facilities for people with disabilities

2 Methodology

The research location is in Pangururan District, Samosir Regency, Indonesia. The selection of the research location is that the study site should be a destination that contains much natural wealth that can be developed.. Five tourist destinations in Pangururan District, North Sumatra Province, Indonesia selected as research areas include Pasir Putih Parbaba Beach, Indah Situngkir Beach (PIS), Kampung Ulos Hutaraja, Tano Panggul Canal, and Reclamation Park (Figure 1). All tourist destinations mentioned have huge potential to be further developed and preserved so that they will be better known to more people and beneficial for the surrounding community.

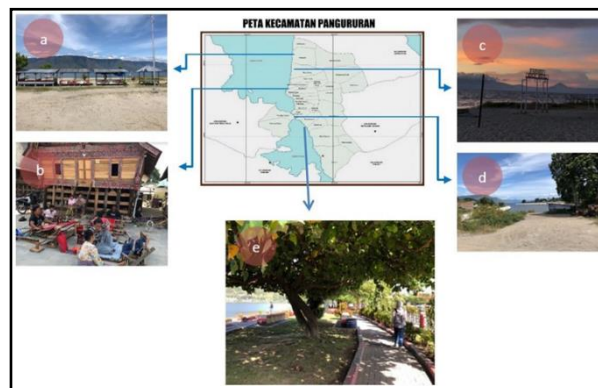


Fig. 1. Map of Pangururan District: (a) Pantai Indah Situngkir (PIS), (b) Kampung Ulos Hutaraja, (c) Pantai Pasir Putih Parbaba, (d) Terusan Tano Panggul, (e) Taman Reklamasi.

In looking at self-efficacy in accessibility in Pangururan District, the method used in this study is a mixed method which requires both qualitative and

quantitative data. Questionnaires are distributed to tourists and local communities and then field observations and interviews are conducted with stakeholders.

Qualitative data were collected through interviews and field observations in the area. In the qualitative approach, field observations and in-depth interviews were conducted with five key informants consisting of stakeholders: local government on Samosir Island, academics, tourism experts, tourist attraction managers, and local communities. In addition, field observations were conducted by gathering information on community activities and physical characteristics.

The quantitative data is collected through questionnaire surveys. With a five-point scale size that ranges from strongly disagree (1) to strongly agree (5) to assess accessibility variables. Such measurements include roads, piers, parking lots, pedestrian paths, and facilities for people with disabilities (Idajati & Nugroho, 2019; Suwena, I Ketut dan Widyatmaja, 2017)(Budiarta R.M., 2011; Kabu, 2019; Kanom et al., 2020). The questionnaire was distributed to 268 respondents divided into 160 tourists and 108 local, in five tourist areas and the general area of Pangururan District. The results of the questionnaire survey were processed using the Statistical Package for Social Sciences (SPSS) version 23 with a Likert scale; 1 is rated as very low and 5 is rated as very high. to get an overall understanding of the average ranking of perceptual items. Furthermore, the results of quantitative and qualitative data are triangulated to determine the truth of data.

3 Analysis and Discussion

The analysis was conducted to examine aspects of accessibility in sustainable tourism in Pangururan Subdistrict. The data was taken through questionnaires, interviews, and field observations. The results of accessibility aspect through questionnaires for local residents and tourists can be seen in Table 3.

Tabel 3. Accessibility Aspects Questionnaire Results.

No	Statement	Value	
		Local Community	Tourist
1.	Local businesses in tourist areas are easily accessible from the roads	4,3	3,7
2.	Parking lots is available in the tourist area	4	3,6
3.	Local businesses are easily accessible to pedestrians	4,4	3,8
4.	Pedestrian path material is safe and	4,2	3,7

	environmentally friendly		
5.	There is a ramp to local businesses around the tourist area for people with disabilities and the elderly	3	3,5
6.	There is a guiding block to local businesses around the tourist area for people with disabilities and the elderly	2,9	3,6
7.	Ramps and guiding blocks materials are safe and environmentally friendly	3	3,6
Total Value		3,7	3,6
		3,65	

The first aspect of accessibility is roads. Pangururan district is located in the Samosir island, an island in the middle of Lake Toba. Tele Road is the only road that connects the island of Samosir to the main island of Sumatera, making it the only land route to access Pangururan District which has a width of about 3 meters. Meanwhile, the roads in Pangururan have a width of about 6-7 metres (Figure 2). Local communities strongly agree that community-run local businesses are easily accessible from the road with a value of 4,3, while tourists agree with that with a value of 3,7 (Table 3).

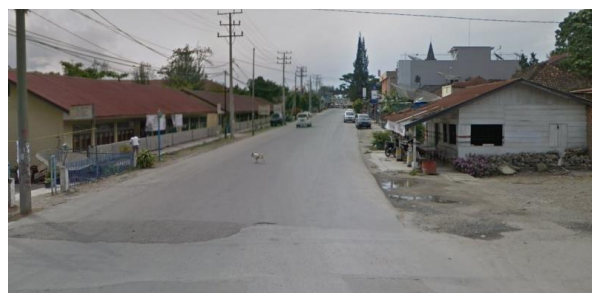


Fig. 2. Pangururan roads

Second, the pier is a place to dock ships for passenger up and down activities and loading and unloading goods. Being near water, water, ships becomes one of the main transportation routes to and from Pangururan by waterway. Jetty Pier is a pier that is quite famous and has become a tourist destination managed by the Samosir Regency Government. This pier is located in Situngkir Village, Pangururan District, Samosir Regency. The distance from Pangururan City to this pier is 10 kilometers.

In addition, there is a port located in the middle of Pangururan city, namely Onan Baru Port, located on

Pelabuhan Street and Putri Lopian Street. Onan Baru Port is currently being revitalised with Reclamation Park, which later will be developed again into Waterfront City Pangururan (Figure 3). This is also supported by depth interviews with the key respondent: the Head of Lumban Suhi Toruan Village, *"..If access in Pangururan Subdistrict is already okay. This area is passed through by Ringroad.."*



Fig. 3. Onan Baru Port (Reclamation Park)

Third, the existence of parking lots. In Pangururan District, vehicle parking tends to lean more to on-street parking. Based on the results of the questionnaire, local people agreed with the availability of parking spaces for tourists with a value of 4, while tourists agreed with a value of 3,6 (Table 3). Some tourist destinations, such as Pantai Indah Situngkir provide parking in the beachside area (Figure 4). Access to the beach is observed to be in good condition, but it can only be passed by one car at a time with a road width of about 2.5-3 meters.



Fig. 4. Parking lots at Pantai Indah Situngkir

Fourth, pedestrian paths are sufficient and have been equipped with special paths for people with disabilities in some tourist areas. Based on the results of the questionnaire, local people strongly agreed that community-run local businesses are easily accessible to pedestrians with a value of 4,4, while tourists agreed with a value of 3,8 (Table 3). Local people agreed that pedestrian path material is safe and environmentally friendly with a value of 4,2, while tourists agreed with a value of 3,7 (Table 3). Based on the results of field observations, tourist areas that have provided pedestrian paths are Situngkir Indah Beach (Figure 4), Parbaba Beach and Onan Baru Port/Reclamation Park (Figure 5).



Fig. 5. Pedestrian Paths at Pantai Indah Situngkir



Fig. 6. Pedestrian Paths at Onan Baru Port (Reclamation Park)

Fifth, facilities for people with disabilities in Pangururan District are still inadequate. The availability of ramps and guiding blocks has begun to be seen along pedestrian paths in the Pangururan region (Figure 5). Based on the results of the questionnaire, local people simply agreed that the availability of ramps for people with disabilities and the elderly to local community-run businesses with a value of 3, while tourists agreed with a value of 3,5 (Table 3). Local people simply agreed that the availability of guiding blocks for the visually impaired to local community-run businesses had a value of 2,9, while tourists agreed with that value of 3,6 (Table 3). Local people simply agree that ramp material and guiding blocks are environmentally friendly and can be easily traversed with a value of 3, while tourists simply agree with a value of 3,6 (Table 3).



Fig. 7. Guiding blocks on Simanindo Roads, Pangururan

Based on the results of observations, the existence of ramps for wheelchair users and guiding blocks are still very minimal. The existence of a ramp is only visible from the roads to a place, such as a citizen's house (Figure 7-8). The existence of ramps and guiding blocks can only be seen at some points of the tourist area and some amount of the facilities' material is damaged. This is also supported by depth interviews with the key respondent: the Head of Lumban Suhi Toruan Village, *"..they also built something like a toilet, roads with international standards for disabilities.."*



Fig. 8. Ramp in front of citizen's house

4 Conclusion

Accessibility as one of self-efficacy aspects is important in further developing tourism. The research done in Pangururan District shows that locals and tourists agree that accessibility for tourism in Pangururan District has fulfilled the needed requirements for safe and comfortable travel. The indicators of the research are roads, piers, parking lots, pedestrian paths and facilities for people with disabilities). The result shows that access to Pangururan District is divided into two, the land route is by Tele Road, and the waterway is through a ship that docks once a week, every Wednesday. On-street parking is available at Pangururan. Jetty Pier serves as a crucial link for water transportation, located in Situngkir Village, 10 kilometers from Pangururan For pedestrian paths in Pangururan District are sufficient. However, a lot of the material used is damaged. Lastly, the availability of ramps and guiding blocks is inadequate but they have been seen placed along Pangururan Road. Meanwhile, tourist areas in Pangururan have not widely implemented facilities for people with disabilities.

Overall, tourism in Pangururan provides comfort, safety, accessibility, and confidence for both local residents and tourists. However, there is a difference in self-efficacy between locals and tourists. Local residents exhibit high self-efficacy, compared to tourist. Locals are more accustomed to traveling in the area, resulting in higher self-efficacy and feelings of comfort, safety, ease of access, and confidence. Conversely, tourists, less familiar with the area, exhibit sufficient self-efficacy and experience adequate levels of comfort, safety, accessibility, and confidence. Locals perceive that enhancing self-efficacy can further boost tourism in the area towards desired goals, while tourists acknowledge the potential improvement in self-efficacy.

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