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Local Genius-Based Marine Tourism Development Pattern in Mentawai Islands Regency

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Abstract:

Siberut Island is recognized as a destination for surfing and diving activities. The region boasts the second-highest quality waves globally and maintains pristine diving locations. However, the area remains underdeveloped and has not significantly contributed to the regional original income (PAD). In addition to its marine resources, this region is renowned for the cultural diversity of the indigenous Mentawai tribe. This study aims to formulate a marine tourism development pattern based on the local genius possessed by the indigenous Mentawai tribe. The research employed a qualitative approach, particularly a case study design. Secondary and primary data were utilized, obtained from relevant institutions using purposive and snowball sampling techniques, interviews, observations, and documentation and analyzed through a descriptive qualitative method with synthesis and interpretation tools. The data focused on the status of marine tourism, the condition of local genius, and the pattern of marine tourism development based on local genius on Siberut Island. This

Keywords:

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research resulted in a local wisdom-based marine tourism development pattern incorporating elements of local wisdom into regional development. Consequently, marine tourism can be developed by synergizing tourist attractions with local wisdom and establishing core and utilization zones in tourist areas. Local genius elements must be emphasized in the utilization zones, including science, technology, beliefs, culture, customs, and creative products as supplementary tourist attractions. The implementation of local genius must involve strategic activities such as planning, product policies, provision of supporting facilities and infrastructure for tourism and local genius, human resource development, institutional support, and financial and technological assistance.

明打威群島本土天才型海洋旅遊發展模式

摘要：

西比路島是公認的衝浪和潛水勝地。該地區擁有全球第二優質的海浪，並保持着原始的潛水地點。然而，該地區仍未得到充分開發，對該地區原始收入 (PAD) 的貢獻並不大。除了海洋資源外，該地區還以土著明打威部落的文化多樣性而聞名。本研究旨在根據土著明打威部落所擁有的當地天賦制定海洋旅遊發展模式。該研究採用了定性方法，特別是案例研究設計。利用了從相關機構獲得的二手數據和一手數據，這些數據採用有目的性和滾雪球抽樣技術、訪談、觀察和記錄，並通過描述性定性方法與綜合和解釋工具進行分析。數據重點關注西比路島的海洋旅遊現狀、當地天賦的狀況以及基於當地天賦的海洋旅遊發展模式。這項研究產生了一種基於當地智慧的海洋旅遊發展模式，將當地智慧的元素融入區域發展。因此，可以通過將旅遊景點與當地智慧相結合，並在旅遊區建立核心區和利用區來發展海洋旅遊。利用區必須強調當地智慧元素，包括科學、技術、信仰、文化、風俗和創意產品作為補充旅遊景點。實施當地智慧必須涉及戰略活動，例如規劃、產品政策、為旅遊和當地智慧提供支持設施和基礎設施、人力資源開發、機構支持以及資金和技術援助。

关键词： 旅遊發展模式，當地特色，海洋旅遊，文化，利用區，明打威群島行政區

1. Introduction

The tourism industry, mainly marine tourism, is not just the backbone of Indonesian growth. In general, countries with potential coastal natural resources use marine tourism as a strategy to help their development, such as Malaysia, Thailand, Vietnam, South Korea, Japan, Maldives, Karabia, Australia, Portugal, Greece, Brazil, Haiti, and many other nations, where tourism is a strategy to aid development (Isa & Ramli, 2014; Tyrrell et al., 1999; Tisdell & Wilson, 2002).

Nearly every Indonesian region is developing its tourism industry, including the Mentawai Islands Regency in West Sumatra. One area where the Mentawai Islands promise economic development is tourism (Mentawai Islands Regency Tourism Office, 2017). The Mentawai Islands Regency plays a significant role in the country's tourism industry. According to the Government Regulation of the Republic of Indonesia No. 50 of 2011 concerning the National Tourism Development Master Plan for 2010–

2025, the Mentawai Islands Regency has been designated a National Tourism Area with two National Tourism Development Areas and one National Tourism Strategic Area.

Tourism can build a community economy and improve regional and national development (Hakim, 2010), creating jobs (Sabon et al., 2018). The various positive impacts of tourism activities on regional and national development show the fundamental relationship between tourism and development. As revealed by Yoeti (2016), tourism has several roles in development, such as acting as an agent of development, a tool of economic policy in developing countries, a foreign exchange earner, and increasing national and regional income.

Alluding to Yoeti's perspective (Yoeti, 2006), to foster the marine, the travel industry area is affected by a few variables, including the accessibility of vacationer items and attractions, openness of offices and foundations, and offices that can make solace. Satryanto & Pamungkas (2015) uncovered the variables that

impact the travel industry improvement: (a) unacceptable objects of the fascination of marine travel industry regions, (b) restricted openness to arrive at marine travel industry regions, (c) restricted foundation supporting marine travel industry region exercises; (d) local area movement backing in marine travel industry regions; (e) diminishing the number of sightseers visiting marine travel industry regions; (f) strategy backing; and (g) cataclysmic event danger. This assertion is similar to that communicated by Indah & Susetyo (2017), uncovering a few factors that can impact the improvement of the marine travel industry, such as the help of offices and foundations, openness, and marine travel industry attractions in vacation areas.

According to the Mentawai Islands Regency's Tourism Development Master Plan 2017–2025, there are several tourism potentials, such as historical, cultural, ecological, and marine. Maritime tourism is the most popular, particularly among foreign visitors. Coastal, island, and ocean regions at sea level, deep sea, or seabed are covered by marine or marine media leisure activities known as marine tourism (Yulianda, 2007).

Although this area has gained popularity in terms of marine tourism, its contribution to the locally generated revenue of the Mentawai Islands Regency is still 6,614 billion rupiah. This shows that marine tourism development activities are still needed, as expressed by Pristiwasa (2017), to optimize the impact on the region and community. Tourism in the Mentawai Islands Regency still needs improvement in facilities, infrastructure, community capacity in managing tourism, and synergy between marine and cultural tourism (Wimeina, 2018).

Based on the above findings, developing marine tourism requires a model or pattern based on the region's characteristics and potential. One potential of marine tourism areas is local genius specifications for each region. Local genius is a conceptual idea that lives in society, grows, and develops continuously in community awareness. It can be approached from religious values, ethical values, aesthetics, intellectuals, or other values, such as economics, technology, or local genius. Local genius is defined as a view of life and knowledge and as a life strategy in the form of activities carried out by local communities to meet their needs (Alfian, 2013).

Generally, studies that utilize local genius to develop marine tourism only use one of the variables of local genius, revealing that strengthening village institutions can be used as a basis for marine tourism development (Sari & Kagungan, 2016). Purwaningsih & Almegi (2016) use community customs and cultural elements to develop marine tourism. Tamaratika & Rosyide (2017) used Hindu beliefs to develop marine tourism. Utami et al. (2018) used social, cultural, and religious values. Another form of local genius used for tourism

development is traditional villages that sell the original customs and culture carried out by local communities (Irfan & Suryani, 2017). Even local geniuses owned in tourism areas are used by the government to formulate tourism development policies (Pramita, 2018). Therefore, the form of local genius used for tourism development will be adjusted to the potential and interest of tourists in enjoying attractions that come from people's traditions or culture. Previous research findings have similarities and differences. Prior research findings utilized one form of local genius to develop marine tourism, formulate development policies, and build communities around marine tourism areas. The difference in findings is the form of the local genius used by previous researchers to develop and formulate policies and create communities around marine tourism areas. Previous research has yet to produce conceptual patterns/models in flow charts that describe the relationship of various forms of local genius as the main instrument in marine tourism development. So far, previous research has only revealed that tourism development can be accomplished by making one form of local genius as its base.

Further, to fill the void that previous researchers have not served, this study aims to construct a pattern of marine tourism development based on the local genius owned by inland tribes, namely the indigenous Mentawai tribe. The novelty of this research is that it analyzes knowledge about local geniuses used to develop marine tourism so that this knowledge can be placed in a scientific position that enriches development theory and aims to improve the practice of marine tourism by using local genius as its basis.

The position of this study regarding scientific and research developments on the subject of marine tourist development patterns based on local wisdom is shown in prior research. Three critical factors—*informativeness, interagency collaboration, and natural resources*—should be considered when establishing marine tourism on Kaledupa Island and its environs, according to Salim & Purbani (2015). It is anticipated that highlighting these three elements will eliminate misconceptions and misunderstandings regarding the information supplied, enabling stakeholders to work together productively.

According to Zamzami (2016), the structure of cultural management in nautical tourism within the Tiku fishing community is based on local wisdom, evidenced by Kuala's strong and organized collective way of life (socioeconomic), patterns of utilizing nautical resources that reflect the relationship between humans and the environment, even socioeconomic well-being among the population, and the preservation of Kuala's balanced condition between environmental sustainability and nautical resource management. Despite government policy support, maritime tourism areas continue to evolve, as demonstrated in efforts to

enhance ecotourism in Teluk Kiluan. Fundamentally, local wisdom is used by the Poros Kuala Foundation to encourage village or 'pekon' institutions to understand their roles and functions. This intervention strengthens village or 'pekon' institutions by making them more open and encouraging community participation in all development activities (Sari & Kagungan, 2016).

To address the high demand for attractions and tourism activities caused by the rapid development of the tourism sector, a strategy for the development of marine tourism can be implemented with various attractions and activities while still maintaining the conservation of natural resources. This strategy aims to sustain the unique allure of tourism, which attracts visitors to the destination area as part of their lifestyle. Additionally, it seeks to preserve and protect the natural environment to balance the development of infrastructure in tourist locations that do not rely on the conservation of natural resources to cope with the diversity of tourism in Indonesia (Abdilah, 2016).

A community-based approach could also be employed to develop marine tourism. The success of tourism development in an area hinges on effective collaboration among the community, government, and various stakeholders. Co-management, a beneficial collaborative model, allows individuals to share responsibilities and authority in managing small islands and coastal regions. Therefore, planning and developing roles should be a top priority in conjunction with the local community, spanning the planning, implementation, and monitoring processes, as manifested in management characteristics (Purwaningsih & Almegi, 2016).

Marine tourism, particularly ecotourism, requires careful consideration of several vital factors. Ecological criteria, socioeconomic aspects, supporting factors, and institutional and regional facilities fall within specified categories (Muis et al., 2016). Local wisdom can also be leveraged to promote marine tourism. The development of nautical tourism can integrate local wisdom. Tamaratika & Rosyidie (2017) stated that incorporation occurs by creating a concept of regional development based on the value system of local wisdom promoting tourism merchandise, engaging in various types of onshore and offshore activities, and collaborating with other tourist attractions based on specific themes with support from relevant stakeholders according to their respective roles and authorities.

Based on the research findings above, marine tourism development can be implemented through various approaches in several administrative regions in Indonesia. Another administrative area with the potential for marine tourism is the Mentawai Islands Regency. Factors such as geographical conditions, natural beauty, unique water sports spots, and distinctive cultural characteristics of the local community are motivations for tourists to visit

attractions in the Mentawai Islands Regency. However, many tourist attractions in this area are only partially managed by the local community but are predominantly overseen by entrepreneurs outside the Mentawai Islands Regency (Pristiwasa, 2017). One administrative region in the Mentawai Islands Regency, selected as a pilot project for a water sports village, is Maileppet Village in South Siberut District. To transform Maileppet Village into a water sports tourism destination, outreach activities and training are essential to enhance the knowledge and skills of the local community (Komaini et al., 2018).

The development of tourism destinations, whether marine or coastal, must consider six components based on the concepts of the blue economy and ecotourism. The development and mining of tourism should evolve in line with innovative and sustainable development principles by applying these concepts. Consequently, it will result in economic, ecological, and social growth (Dimas & Gurning, 2018). Policy support is crucial for the development of locally driven marine tourism. Local wisdom aids in sustainable development through tourism policies encompassing levels of community participation, collaboration, communication between population education and social norms, population density, population mobility, and crime rates (Pramita et al., 2018).

Many types of local wisdom can develop marine tourism. According to Fatimah & Ramadhan (2019), the traditional culture in the Integrated Mandeh Tourism Area includes balimau kasai, gamat, folklore of Puti Andam Dewi, mamukek, randai, dance, badie-badie tomong, basanji, tukang canang, and gotong royong. This traditional culture can be harnessed for sustainable tourism.

Tourism based on local wisdom can also contribute to the growth of marine tourism. The Pesawaran Regency government's policies support such efforts. The One Village, One Destination (OVOD) program, allowing residents to visit tourist destinations, is part of this strategy (Kagungan & Yulianti, 2019). Marine tourism development can be optimized with the support of natural resources and grounded in local wisdom. Triyanti et al. (2020) explained that communities utilize the coast's natural wealth to create creative products (handicrafts). They become distinctive souvenirs that tourists can purchase, thereby increasing the income of the surrounding community.

2. Methods

The research paradigm used in this study was the post-positivism paradigm. The research method used was qualitative, with a type of research case study (Creswell, 2017). This research took six months, focusing on two sub-districts: Southwest Siberut District and South Siberut-Mentawai Islands Regency; secondary and primary data were used. Data were

obtained from related agencies and research informants; as many as 19 people received data from purposive techniques and snowball sampling. The focus of the data used is the condition of marine tourism, the condition of local genius, and the pattern of marine tourism development based on the local genius on Siberut Island. Data were collected through interviews, observations, and documentation. The data collection instruments used were interview guides, observation guides, voice recording devices, and visualization recording devices. Secondary data were analyzed using content analysis techniques, while primary data were analyzed using qualitative descriptive data analysis techniques with the analysis tools used, namely synthesis and interpretation techniques.

3. Result and Discussion

3.1. Existing Conditions of Marine Tourism on Siberut Island, Mentawai Islands Regency

According to Government Regulation Number 50 of 2011, the Mentawai Islands Regency is designated a national tourism strategic area (KSPN). More details include Siberut Island, Sipora, North Pagai, and South Pagai as the KSPN. Tourism activities in this area can be grouped based on regional spatial planning, as shown in Table 1.

Table 1: Tourism Designation Area in Mendawai Islands Regency; Source: Mentawai Islands Regency Tourism Office, 2017

No	Tourism designated area	Location
1.	Cultural and historical tourism	<ul style="list-style-type: none"> • South Siberut District: Madobag and Matotonan Villages. • West Siberut District: Simalegi and Simatalu villages. • North Siberut District: Bojakan Village. • Southwest Siberut District: Sagalubeg Village. • South SiporaSubdistrict: Sioban Village.
2.	Nature tourism	Some villages on Siberut Island include Sigapokna, Simalegi, Simatalu, Bojakan, Sibudda Oinan, Matotonan, Madobag, Katurei, and Sagulubek.
3.	Marine tourism	They are scattered throughout the administrative area of Mentawai Islands Regency, especially in villages: Silabu, Sikakap, Malakopa and Sinakak, Katiet, Bosua, Gobi and Siruamata Island, Mapaddegat, Pukarajat Bay, Taraet and Matutumman, Katurei Bay and Taileleu, Saibi Samukop and Saliguma, Sirilogui and other small islands.

To support tourism activities in the Mentawai Islands Regency, several supporting infrastructures such as hotels and inns are shown in Table 2.

Table 2. Number of hotels and inns in Mentawai Islands Regency; Source: BPS-Statistics (2022)

No	District	Hotel	Lodging	Sum
1.	South Pagai	0	0	0
2.	Snapper	0	10	10
3.	North Pagai	0	0	0
4.	South Sipora	0	9	9
5.	North Sipora	2	24	26
6.	South Seberut	0	12	12
7.	Southwest Siberut	0	28	28
8.	Central Siberut	0	2	2
9.	North Sibeurt	0	2	2
10.	West Siberut	0	4	4
Kab. Kep. Mentawai		2	91	93

The Mentawai Islands are part of the West Sumatra Province, which has natural potential in the form of forests, rivers, swamps, and seas inhabited by various tribes with unique traditions. The natural wealth of this area is the capital of its tourism development. One famous tourism activity in this area is marine tourism.

This area has been famous as a location for surfing tourism since 1993. The best waves in this area occurred from March to September. The number of surf-wave spots in this area is 72, making it 10 of the world's best spots. Marine tourism areas are located in Silabu (North Pagai), Sikakap, Malakopa, Sinakak (South Pagai), Katiet, Bosua, Gobi, Siruamata Island (South Sipora), Mapaddegat, Pukarajat Bay, Taraet, Matuptuman (North Sipora), Katureidan Taileleu Bay (Southwest Siberut), Saibi Samukop and Saliguma (Central Siberut), Sirilogui (North Siberut), and other small islands.

As an illustration, statistical data for tourist visits in the Mentawai Islands Regency from 2016 to 2018 has always increased. This can be seen from the data on domestic tourist visits: in 2016, there were as many as 11,236 people, in 2017, there were as many as 13,992 people, and in 2018, there were as many as 17,723 people. While the number of foreign tourist visits in 2016 was 7,982, in 2017, it was as many as 9,833 people, and in 2018, it was 12,325 (Mentawai Islands Regency Tourism Office, 2017). In 2019, there were 9,164 domestic tourists and that of foreign tourists was 989,906. When the COVID-19 pandemic broke out in this area in 2020, the number of tourists decreased to 1,244 archipelagos and 115,986 foreign tourists. In 2022, Mentawai's tourism condition is improving again, as can be seen from the number of foreign tourists visiting in 2022, reaching 2,969, and Nusantara tourists coming 31.

The uniqueness of Mentawai Island Regency tourism, which foreign tourists best know, is marine tourism. In this case, several surfing spots become global. The number of wave points is the main tourist attraction, especially for tourists who prefer to surf. The Mentawai Islands region, from Siberut Island to South Pagai Island, contains surfing spots with various wave formations. However, these waves are inconsistent

throughout the year because they depend on weather and wind pressure. Generally, the best month to surf in the Mentawai Islands is April to October.

In all surfing locations in Mentawai, there were 23 types of international standard waves: eBay, pic top, banging, value, nippy, Kandi right, Kandi left, four bobs, cabinets, promises, bugerwovwt jug left, mainuk left, telescope, and scarecrow. Ice Land, Lences left, Lences right, Maccaronis, Rock, Thunders, Holde, and Disco the distribution of spots serving on Siberut Island can be seen in Figure 1. This area has resorts that tourists can use for lodging during their marine tours. The number of resorts in the Mentawai Islands Regency was 82, and the best among these resorts was five. Some of the famous resorts in this area include Nasara Resort and Aloita Resort and SPA in Tuapejat, Kandui Resort, and Kandui Villas in Southwest Siberut, and Macaronis Resort in Silabu, North Pagai District.



Figure 1. Distribution of Spot Surfing on Siberut Island (Hostelworld, n.d.)

Of all the surfing spots in the Mentawai Islands Regency, ten spots are most famous. These spots are located on Nyang-Nyang Island, Karang Bajad, Karoniki, Pananggalat, and Mainuk on Siberut Island, Kateil Basua on Sipora Island, and Pagai Utara on Sikakap Island and are among the highest in the world (Mentawai Islands Regency Tourism Office, 2017).

3.2. Existing Conditions of Local Genius of Mentawai Indigenous Tribe

The values of the local genius in the Mentawai community are seen in the pattern of interaction of the Mentawai community with the environmental system, which is mainly related to natural resource management, showing the efforts made systematically in the context of saving and preserving the environment, which has been carried out for generations by the Mentawai community. The system of clearing forests for cultivation without burning, respecting the sea, maintaining coral reefs, and using simple technology shows the Mentawai people's

concern for the sustainable use of livelihoods from generation to generation. The same is also found in the *Minangkabau* community; a value system hallows certain places and prohibitions on killing or capturing certain animals, which can also be referred to as a form of local genius.

The forms of local genius in society include values, norms, ethics, beliefs, customs, customary law, and special rules (Haryanto, 2014). Several forms of local genius owned by the indigenous Mentawai tribe community are shown in Table 3.

Table 3. Diversity of local genius forms of Mentawai indigenous people (Developed by the authors)

No	Group of forms of local genius	Kind
1.	Knowledge	Environment Treatment Game diversity Disasters
2.	Technology/Equipment	Transportation Food fulfillment Clothing and jewelry Residence Communication Art
3.	Belief/Religion	<i>Arat Sabulungan</i> is a variation of beliefs about various powers possessed by ancestral spirits.
4.	Culture	Religious system Community organization system Knowledge system Livelihood system Human life technology/equipment system Language Art
5.	Customs	Pointed teeth Processing sago Concocting poison arrows <i>Alak Toga</i> Tattoo Treatment Wedding

Given the conversation above, it tends to be reasoned that the South and Southwest Siberut regions have different types of neighborhood virtuosos. The nearby virtuoso contained information about the climate, medication, variety of game creatures, and catastrophes. Other types of neighborhood virtuosos are innovations or hardware used for everyday exercises, such as transportation, gear to address food issues, clothing, lodging, specialized devices, and expressions. Regarding the conviction framework, the Mentawai ancestral local area has a neighborhood virtuoso called *Arat Sabulungan*.

The particular culture of the Mentawai clan's local area is also a type of neighborhood virtuoso possessed by nearby areas. Neighborhood virtuoso is seen from the social side as having strict frameworks, hierarchical and local area frameworks, information frameworks, work frameworks, mechanical frameworks,

correspondence, and craftsmanship. Moreover, the customs claimed by the Mentawai people group are types of neighborhood virtuoso, such as wedding parades, clinical parades, tightening teeth, and Mentawai tattoos. Indeed, this region has various imaginative items that are financially valuable.

3.3. Marine Tourism Development Pattern Based on Local Genius

The pattern understood in this study is the word equivalent to the word model or design. Therefore, word pattern is defined as a framework of forms or designs (Big Indonesian Dictionary, 2017) made to produce something. This understanding is similar to the definition of a word model, which represents an object or idea in a simplified form of natural conditions or phenomena (Achmad, 2012). Development is defined as the process, method, and act of developing and developing gradually and regularly, leading to the desired target.

According to Cooper (2017), to develop tourism, four elements must be fulfilled: attraction (artificial or natural beauty), supporting facilities and services, ease of access to the location, and tourism management organizations. One concept that can be used for tourism development and planning is tripartite attraction design, which divides three development elements, including the core zone (reflecting the image of a tourist area), buffer zone (protecting the physical condition of the tourist area), and utilization zone, which is the development of supporting aspects of the tourist area (Gunn, 2020).

According to the theory above, local genius is the main element in developing Siberut Island's marine tourism. The local genius can be interpreted as thoughts about life based on apparent reason, a sound mind, and positive things. It can be translated as a work of reason, deep feelings, habits, forms of temperament, and encouragement of human glory. Local genius is the view of life and science and various life strategies in the form of activities carried out by local communities to address multiple problems in meeting their needs.

The Mentawai Tribe community (a local community in the marine tourism development study area) owns several forms of local genius. According to Kusbiantoro (2016), the indigenous people of the Mentawai Tribe have a primary residence called Uma as a place to live, the center of social and spiritual life, and their identity as the indigenous people of the Mentawai Tribe. Uma is one form of the local genius of the indigenous Mentawai Tribe in carpentry work. The indigenous people of the Mentawai Tribe also believe in signs/clues derived from nature, such as the knowledge of disasters that will hit their area. One of the natural signs/clues they use is the sound of *billow* animals (a type of primate known as dwarf gibbons), indicating an impending danger to their environment (Indrizal, 2016).

This knowledge and trust makes it a form of local genius owned by the local community.

Another form of local genius possessed by the indigenous Mentawai Tribe is the ability of a Sikerei (traditional medicine practitioner). Sikerei can concoct traditional medicines using materials from forest plants (Zamzami, 2013). Another form of local genius is the Mentawai tattoos, which symbolizes the community's social identity (Rubianti & Putra, 2015). The indigenous people of the Mentawai Tribe also have traditional arts in the form of musical instruments, songs, and dances that are distinctive forms of local genius (Napitapulu, 2015).

The development of marine tourism on Siberut Island, the Mentawai Islands Regency, can begin from the core zone of the marine tourism area. In this core zone, there is a primary concentration of tourist objects and attractions that are the leading destinations for tourists to come to the marine tourism area on Siberut Island. In this core zone, several tourist activities such as surfing, diving, and snorkeling have become popular with foreign tourists. This study's core zone for marine tourism development is located in Southwest Siberut District.

Private parties or investors still manage tourism activities in the core zone. Generally, they are foreign-nationals. They obtained permission from the government to manage tourism activities related to resort hotels and provide services for tourists to enjoy nature as well as surfing, diving, and snorkeling activities.

The development of marine tourism, which begins with the core zone, is obtained from a resume of essential statements from informants from the Mentawai Islands Chief. The statement of one of the informants can be seen in the following interview excerpt.

Marine tourism development on Siberut Island can be accomplished by first developing its core zone. The core zone is in Southwest Siberut district. The government supports marine tourism development activities. This is because the Mentawai tourism sector is a priority sector developed by the Mentawai Islanda Regency Government.

The informant's statement above aligns with the opinions of Samudra et al. (2010) and Razak & Rimadewi (2013), who stated that marine tourism development activities could be initiated by intervening in the core zone of marine tourism areas.

Development carried out in the core zone of the marine tourism area is more focused on transportation facilities and infrastructure. This is because the location of marine tourism activities is greater on small islands around the Southwest Siberut District. Therefore, it is necessary to provide representative low-cost water transportation facilities and infrastructure. Thus, tourists

in the southwest Siberut area can easily access marine tourism centers.

After the core zone in the marine tourism area is developed, further activities focus on the utilization zone. This zone supports tourism in marine tourism areas. In this case, the development uses the potential of the local genius found in marine tourism areas.

This utilization zone can be built or developed around marine tourism areas in the Southwest Siberut District or integrate local genius activities in the South Siberut District. This is an option offered by the Mentawai Islands Regency Government. The Mentawai Islands Regency Government designed the system. One informant from the Mentawai Islands Regency government stated the following.

The Mentawai Islands Regency Government has designed a synergy between marine and cultural tourism activities. The government pioneered a road from the South Siberut District to Southwest Siberut. This action, in addition to opening up public accessibility in the two sub-districts, also aims to facilitate access for tourists who want to enjoy marine tourism activities with cultural tourism.

Tourism stakeholders need to take several strategic actions to develop the utilization zone by utilizing the diversity of the local genius owned by the community around the marine tourism area. These actions include careful planning and policies as the basis for regulations in implementing marine tourism development based on local genius. Development actors can use planning as a guideline for marine tourism development actions based on local genius. Through planning, these development activities can minimize waste and avoid or minimize errors in decision making.

The results of the planning that has been prepared can be strategic input by stakeholders in formulating policies. The policy has become the main instrument in marine tourism development activities based on local genius. Development activities require rules and regulations to ensure that maritime tourism development activities do not cause losses that affect the region and community.

Incorporating elements of local genius in the development of marine tourism requires support for the availability of facilities and infrastructure. Local genius activities used as a base for marine tourism development need to be provided with facilities and infrastructure in marine tourism areas. For example, when the indigenous art of the Mentawai tribe is used as an additional attraction in marine tourism, supporting facilities and infrastructure are needed. Likewise, other forms of local genius, such as technology, equipment, and cultural activities, require the availability of supporting facilities and infrastructure in marine tourism areas.

Regarding the use of the local genius, the

government must play a role in providing these facilities and infrastructure. The role of the government can determine whether the diversity of local genius can be utilized and maintained sustainably. Additionally, all forms of local genius owned by the community are closely related to the culture of the Mentawai tribe. Therefore, the utilization of local genius requires government involvement.

Other elements must be considered in developing marine tourism based on local genius, namely, human resources and tourism community institutions. Human resources become essential when the local genius is used as a base for marine tourism development. Local genius actors must be empowered and the welfare of the next generation of local genius activity actors must be guaranteed. Governments, tourism actors, and NGOs can later carry out these actions.

Funding or capital is another component that needs to be considered when developing marine tourism based on local genius. Every tourism development activity requires significant funding. It is only possible for government funds to provide funding. To overcome these funding problems, sources of funds from outside the government, such as investors and private companies, can also be utilized as sources of grant funds provided by foreign countries. The overall funding for marine tourism development based on local genius must be considered. This can later guarantee the realization of marine tourism development activities based on local genius.

Another important element is the availability of energy and technology in the marine tourism area that will be developed. The power referred to here can be in the form of electricity or fuel. Until now, the availability of electrical energy in this area has been limited. Likewise, the availability of fuel for tourism actors needs to be improved. Therefore, the government and other parties must find applicable solutions to these limitations. In addition, the availability of technology can facilitate and solve problems faced by tourism actors in this area.

All of the above elements become important when local geniuses are used as a base in marine tourism development. Later, all forms of local genius, such as knowledge, technology, equipment, beliefs, culture, and creative products owned by the community, could be an additional tourist attraction in the marine tourism area.

When the development of maritime tourism is founded on the brilliance of the local community, all the previously mentioned elements assume significant roles. In the future, all manifestations of local brilliance, including expertise, tools, technology, values, customs, and inventive goods produced locally, could serve as an extra draw for visitors to maritime tourism regions.

In addition to these elements, paying attention to the supporting and inhibiting aspects of utilizing local genius as a base in developing marine tourism is also

necessary. All components and supporting aspects can only be resolved when there is cooperation between stakeholders, such as the government, investors, local genius actors, and NGOs. They synergize with each other during the development of marine tourism in the area.

The pattern of marine tourism development based on the local genius in the Mentawai Islands Regency (Figure 2) resulting from this study is the development of patterns or models that previous researchers have produced. Studies that utilize local genius to develop marine tourism only use one of the variables of local genius, such as Sari and Kagungan (2016), and revealed that strengthening pekon/village institutions can be used as a basis for marine tourism development. Purwaningsih and Almegi used community customs and cultural elements to develop marine tourism. Tamaratika and Rosyidie utilized Hindu beliefs to develop marine tourism. Utami et al. (2018) examine social, cultural, and religious values. Tourism development is a traditional village that sells original customs and culture from local communities (Irfan & Suryani, 2017) and employs local genius to formulate marine tourism development policies.

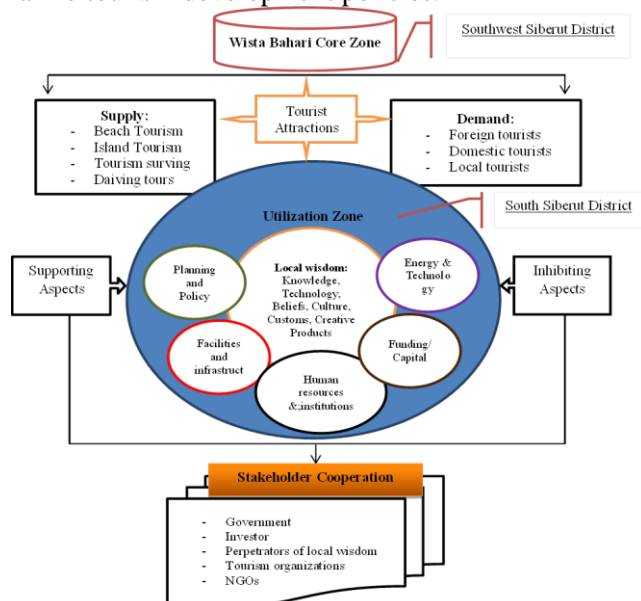


Figure 2. Pattern of marine tourism development based on the local genius in the Mentawai Islands Regency (Developed by the authors)

4. Conclusion

The results of this study can add knowledge to the theory of development because they contain a flowchart of a conceptual pattern for the development of marine tourism by incorporating local wisdom theory. From a practical perspective, the results of this research are helpful to the Mentawai Islands Regency government in developing its tourism sector. The pattern produced from this research can serve as an input and reference for the Mentawai Islands Regency government to optimize marine tourism and contribute to additional regional income.

This research prioritizes local genius as the basis of

marine tourism development on Siberut Island, Mentawai Islands Regency, determining the core and utilization zones in the marine tourism area. The local genius element focuses more on the utilization zone. There are various kinds of local wisdom owned by the Mentawai tribe, such as knowledge, technology/equipment, belief/religion, culture, customs, and creative products provided in the utilization zone as additional tourist and marine tourism attractions. The implications of local genius must be accompanied by strategic activities such as planning, policy products, supporting facilities and infrastructure for tourism and local genius, empowerment of human resources and institutions, and support for development funds and technology. When utilizing local genius, it is also necessary to consider the supporting and inhibiting aspects of all stakeholders involved in marine tourism development.

5. Limitations and Further Study

The current research focuses on the Marine Tourism Development Pattern Based on Local Genius in Mentawai Islands Regency. The region has a potential destination but has not been able to increase regional original income (PAD). Research on maritime tourism is not only limited to what researchers do today but can also be developed into various aspects of life. It is hoped that this research will provide knowledge to the community so that maritime tourism based on local genius can be very interesting to visit, even becoming a new destination in Mentawai.

Author Contributions

Conceptualization, A.M.; methodology, M.N.; validation, R.S.; formal analysis, E.; investigation, R.S.; resources, A.M.; data curation, E.; writing—original draft preparation, all authors contributed equally; writing—review and editing, M.N.; visualization, E.; supervision, A.M.; project administration, M.N. All authors have read and agreed to the published version of the manuscript.

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Data Availability Statement

The original contributions presented in this study are included in the article.

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Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] ABDILLAH, D. (2016). Pengembangan Wisata Bahari di Pesisir Pantai Teluk Lampung. *Jurnal Destinasi Kepariwisata Indonesia*, 1(1), 45–65.
- [2] ACHMAD, M. (2012). *Teknik Simulasi dan Permodelan*. Makassar, Universitas Hasanuddin.
- [3] ALFIAN, M. (2013). Potensi Kearifan Lokal dalam Pembentukan Jati Diri dan Karakter Bangsa. *Prosiding the 5th International Conference on Indonesian Studies: Ethnicity and Globalization*. Yogyakarta 13-14 Juni 2013, Fakultas Ilmu Pengetahuan Budaya Universitas Indonesia.
- [4] BPS-STATISTICS (2022). *Mentawai Islands Regency*.
- [5] COOPER, E.A. (2017). *Tourism Principles & Practice*. England, Longman Group Limited.
- [6] CRESWELL, J.W., & CRESWELL, J.D. (2017) *Research Design Qualitative, Quantitative, and Mixed Methods Approaches*. 4th ed., Sage, Newbury Park.
- [7] TEGAR., D.R., & GURNING, O.S. (2018). Development of Marine and Coastal Tourism Based on Blue Economy. *International Journal of Marine Engineering Innovation and Research*, 2(2), 128–132.
<http://dx.doi.org/10.12962/j25481479.v2i2.3650>
- [8] FATIMAH, S., & RAMADHAN, D. (2019). Sustainable Tourism Integrated Tourism Area Based on Culture and Local Wisdom at Mandeh Area. *International Journal of Tourism, Heritage and Recreation Sport*, 1(1), 1–6.
<https://doi.org/10.24036/ijthrs.v1i1.14>
- [9] GUNN, C.V. (2020). *Tourism Planning, Basics, Concepts, Cases*. Routledge, New York.
- [10] HAKIM, L. (2010). Industri Pariwisata dan Pembangunan Nasional. *Among Makarti: Jurnal Ekonomi dan Bisnis*, 3(1), 70–78.
<http://dx.doi.org/10.52353/ama.v3i1.18>
- [11] HARYANTO, J.T. (2014). Kearifan Lokal Pendukung Kerukunan Beragama pada Kuantitas Tengger Malang Jatim. *Analisa: Journal of Social Science and Religion*, 21(2), 201–213.
<https://doi.org/10.18784/analisa.v21i02.15>
- [12] HOSTELWORLD. (n.d.). *Nyang Ebay Surf Camp*. Retrieved from <https://www.hostelworld.com/st/hostels/p/317663/nyang-ebay-surf-camp/>
- [13] INDAH, D.N., & SUSETYO, C. (2017). Analisis Faktor-Faktor yang Mempengaruhi Pengembangan Kawasan Pariwisata Bahari di Gili Labak, Kabupaten Sumenep. *Jurnal Teknik ITS*, 6(1), 75–77. DOI: 10.12962/j23373539.v6i1.22245
- [14] INDRIZAL, E. (2016). Bilou dan Tantangan Mengkonversinya di Mentawai. Sebuah Tinjauan dari Perspektif Sosial Budaya. *Jurnal Antropologi: Isu-Isu Sosial Budaya*. 18(1), 51–56.
<https://doi.org/10.25077/jantro.v18.n1.p51-56.2016>
- [15] IRFAN, M., & SURYANI, A. (2017). Local Genius Based Tourist Village Organization in Lombok Tourist Area. *International Journal of English Literature and Social Sciences*, 2(5), 73–82.
<https://dx.doi.org/10.24001/ijels.2.5.10>
- [16] ISA, S.M., & RAMLI, L. (2014). Factors Influencing Tourist Visitation in Marine Tourism: Lessons Learned From FRI Aquarium Penang, Malaysia. *International Journal of Culture, Tourism and Hospitality Research*, 8(1), 103–117.
<https://doi.org/10.1108/IJCTHR-04-2013-0016>
- [17] KAGUNGAN, D., & YULIANTI, D. (2019). The Synergy Among Stakeholders to Develop Pisang Island as Marine Tourism: The Case of Underdeveloped Area. *Masyarakat, Kebudayaan dan Politik*, 32(1), 16–23.
<https://doi.org/10.20473/mkp.V32I12019.16-23>
- [18] BIG INDONESIAN DICTIONARY (2017). <https://kbbi.kemdikbud.go.id/>
- [19] KOMAINI, A., FITRIA, Y., SUYUTHIE, H., & WARYONO, W. (2018). Pengembangan Desa Maileppet Kecamatan Siberut Selatan Kabupaten Kepulauan Mentawai Menjadi Desa Pilot Olahraga Pariwisata (Sport Tourism). *Jurnal Stamina*, 1(1), 482–488.
<http://stamina.ppj.unp.ac.id/index.php/JST/article/view/129>
- [20] KUSBIANTORO, K. A. (2016). Modernisasi dan Komersialisasi Uma Masyarakat Mentawai Sebuah Deskripsi Fenomenologis. *Jurnal Sosioteknologi*, 15(2).
<https://doi.org/10.5614/sostek.itbj.2016.15.02.2>
- [21] MENTAWAI ISLANDS REGENCY TOURISM OFFICE (2017). *Rencana Induk Pembangunan Kepariwisata Kabupaten Kepulauan Mentawai*. Mentawai.
- [22] MUIS, S., VERLAAN, M., WINSEMIUS, H.C., AERTS, J.C.J.H., & WARD, P.J. (2016). A Global Reanalysis of Storm Surge and Extreme Sea Levels, *Nature Communications*, 7(11969), 1–11. DOI: 10.1038/ncomms11969.
- [23] NAPITAPULU, U. (2015). Strategi Pemasaran Pariwisata Budaya Mentawai Melalui Produk Kesenian Muturuk. *Narada: Jurnal Desain dan Seni*, 2(1), 59–66.
- [24] PEMERINTAH INDONESIA (2011). *Peraturan Pemerintah Nomor 50 Tahun 2011 tentang Rencana Induk Pembangunan Kepariwisata Nasional Tahun 2010-2025*.
- [25] PRAMITA, A.H. (2018). Tourism Policy Based On Local Genius To Actualize Sustainable Development. *South East Asia Journal of Contemporary Business Economics and Law*, 15(5), 285–293.

- [26] PRAMITA, A.S., HARTIWININGSIH, & HADAYANI, R.K.A.G.I. (2018). Tourism Policy Based on Local Wisdom to Actualize Sustainable Development. *South East Asia Journal of Contemporary Business, Economics and Law*, 15(5).
- [27] PRISTIWASA, K.T.W.I. (2017). Motivasi dan Persepsi Wisatawan Terhadap Potensi Wisata Di Kepulauan Mentawai. *Jurnal Kepariwisata dan Hospitalitas*, 1(2), 111–117.
- [28] PURWANINGSIH, E., & ALMEGI (2016). Pengembangan Pariwisata Maritim Berbasis Masyarakat Di Kawasan Mandeh Sumatera Barat. *Jurnal Geografi*, 5(1), 20–28.
- [29] RAZAK, A., & RIMADEWI, S. (2013). Pengembangan Kawasan Pariwisata Terpadu Di Kepulauan Seribu. *Jurnal Teknik Pomits*. 2(1). DOI: 10.12962/j23373539.v2i1.2461.
- [30] RUBIANTI, R., & PUTRA (2015). Konsep Diri Pada Masyarakat Mentawai yang Memakai Tato. *Jurnal Riset Aktual Psikologi Universitas Negeri Padang*, 6(2). <https://doi.org/10.24036/rapun.v6i2.6614>
- [31] SABON, V.L., PERDANA, M.T.P., KOROPIT, P.C.S., & PIERE, W.C.D. (2018). Strategi Peningkatan Kinerja Sektor Pariwisata Indonesia Pada Asean Economic Community. *Esensi: Jurnal Bisnis & Manajemen*, 8(2). <https://doi.org/10.15408/ess.v8i2.5928>
- [32] SALIM, L.H., & PURBANI, D. (2015). Pengembangan Pariwisata Bahari Berbasis Masyarakat Di Pulau Kaledupa, Kabupaten Wakatobi, Provinsi Sulawesi Tenggara. *Jurnal Manusia dan Lingkungan*, 22(3), 380–387. <https://doi.org/10.22146/jml.18765>
- [33] SAMUDRA, K., BASKORO, M.S., WISUDO, S.H., & ISKANDAR, B.H. (2010). Potensi Wisata Bahari Pulau-Pulau Kecil di Kawasan Kapoposang Kabupaten Pangkep. *Marine Fisheries: Jurnal Teknologi dan Manajemen Perikanan Laut*, 1(2), 87–96. <https://doi.org/10.29244/jmf.1.2.87-96>
- [34] SARI, D.P. (2016). Motif Keaktorran Dalam Ritual Turuk Laggai Masyarakat Siberut Mentawai – Sumatera Barat. *Jurnal Ekspresi Seni*, 18(2), 258–276. <https://journal.isipadangpanjang.ac.id/index.php/Ekspresi/article/view/96>
- [35] SARI, Y.R., & KAGUNGAN, D. (2016). Kebijakan Pengembangan Wisata Bahari Berbasis Kearifan Lokal dan Penguatan Kelembagaan Desa dalam Rangka Meningkatkan Kesejahteraan Masyarakat. *Jurnal Ilmiah Econosains*, 14(1), 82–97. <https://journal.unj.ac.id/unj/index.php/econosains/article/view/595>
- [36] SATRYANTO, R., & PAMUNGKAS, A. (2015). Analisis Faktor-Faktor Yang Mempengaruhi Pengembangan Kawasan Wisata Bahari Lhok Geolumpang, Aceh Jaya. *Jurnal Teknik IST*, 4(1). DOI: 10.12962/j23373539.v4i1.8962.
- [37] TYRRELL, T., HOLLIGAN, P., & MOBLEY, C. (1999). Optical Impacts of Oceanic Coccolithophore Blooms. *Journal of Geophysical Research: Oceans*, 104(C2), 3223–3241. <https://doi.org/10.1029/1998JC900052>
- [38] TAMARATIKA, F., & ROSYIDIE, A. (2017). The Incorporation Of Local Wisdom In The Development Of Tourism Areas in the Beach Environment. *Jurnal Sositoknologi*, 16(1). 125–133. <https://doi.org/10.5614/sostek.itbj.2017.16.1.10>
- [39] TISDELL, C., & WILSON, C. (2002). World Heritage Listing of Australian Natural Sites: Tourism Stimulus and Its Economic Value. *Economic Analysis & Policy*, 32(2), 27–49. [https://doi.org/10.1016/S0313-5926\(02\)50017-5](https://doi.org/10.1016/S0313-5926(02)50017-5)
- [40] TRIYANTI, R., MUAWANAH, U., KURNIASARI, N., SOEJARWO, P.A., & FEBRIAN, T. (2020). Potensi pengembangan ekowisata bahari berbasis masyarakat adat sebagai kegiatan ekonomi kreatif di kampung Malaumkarta, Papua Barat. *Jurnal Sosial Ekonomi Kelautan dan Perikanan*, 15(1), 93–105. <https://doi.org/10.15578/jsekp.v15i1.8239>
- [41] UTAMI, L., RAMADHAN, D.S., & MUNGgaran, R.A. (2018). The Role of Nadran Tradition As a Maritime Education Based on the Local Genius. *OISSA Journal of Indonesia EMAS*, 1(1), 60–66.
- [42] WIMEINA, Y. (2018). Identifikasi Kekuatan dan Kelemahan Potensi Kecamatan Sikakap Kabupaten Kepulauan Mentawai Untuk Dikembangkan Sebagai Destinasi Wisata. *Jurnal Polibisnis*, 10(2), 57–65. <https://doi.org/10.30630/jipb.10.2.40>
- [43] YOETI, O.A. (2006) *Perencanaan Strategis Pemasaran: Daerah Tujuan Wisata*. Jakarta, Pradnya Paramita.
- [44] YOETI, O.A. (2016). *Perencanaan dan Pengembangan Pariwisata*. Jakarta, Balai Pustaka.
- [45] YULIANDA, F. (2007). Ekowisata bahari sebagai alternatif pemanfaatan sumberdaya pesisir berbasis konservasi. *Makalah Seminar Sains*, 21(1), 119-129.
- [46] ZAMZAMI, L. (2016). Dinamika Pranata Sosial Terhadap Kearifan Lokal Masyarakat Nelayan Dalam Melestarikan Wisata Bahari. *Jurnal Antropologi: Isu-isu Sosial Budaya*, 18(1), 57–67.
- [47] ZAMZAMI, L. (2013). Sekerai Mentawai; keseharian dan Tradisi Pengetahuan Lokal yang Digerus oleh Zaman. *Antropologi Indonesia*, 34(1).

參考文:

- [1] 阿卜迪拉, D. (2016)。楠榜灣海岸海洋觀光業的發展。印尼旅遊目的地雜誌, 1(1), 45–65。
- [2] 阿赫馬德, M. (2012)。仿真和建模技術。望加錫, 哈桑丁大學。

- [3] 阿爾菲安, M. (2013)。地方智慧在形成國家認同和性格上的潛力。第五屆印尼研究國際會議論文集：種族與全球化。日惹 2013 年 6 月 13-14 日, 印尼大學文化科學學院。
- [4] BPS 統計數據 (2022)。明打威群島攝政。
- [5] 庫珀, E.A. (2017)。旅遊原理與實務。英國朗文集團有限公司。
- [6] 克雷斯韋爾, J.W. 和克雷斯韋爾, J.D. (2017) 研究設計質性、量性與混合方法。第四版, Sage, 紐伯里公園。
- [7] TEGAR., D.R. 和 GURNING, O.S. (2018)。基於藍色經濟發展海洋濱海旅遊。國際海洋工程創新與研究雜誌, 2(2), 128-132。 <http://dx.doi.org/10.12962/j25481479.v2i2.3650>
- [8] 法蒂瑪, S. 和 拉馬丹, D. (2019)。曼德地區基於文化和地方智慧的永續旅遊綜合旅遊區。國際旅遊、遺產和休閒運動雜誌, 1(1), 1-6。 <https://doi.org/10.24036/ijthrs.v1i1.14>
- [9] 岡恩, C.V. (2020)。旅遊規劃、基礎、概念、案例。勞特利奇, 紐約。
- [10] 法官, L. (2010)。旅遊業與國家發展。馬卡蒂：經濟與商業雜誌, 3(1), 70-78。 <http://dx.doi.org/10.52353/ama.v3i1.18>
- [11] 哈里安托, J.T. (2014)。東爪哇瑪瑯騰格爾縣的當地智慧支持宗教和諧。分析：《社會科學與宗教期刊》, 21(2), 201-213。 <https://doi.org/10.18784/analisa.v21i02.15>
- [12] 青年旅舍世界。(无日期)。奈良易趣冲浪營。取自 <https://www.hostelworld.com/st/hostels/p/317663/nyang-ebay-surf-camp/>
- [13] INDAH, D.N. 與 SUSETYO, C. (2017)。蘇梅內普縣吉拉拉克海洋旅遊區發展影響因素分析。《ITS 工程雜誌》, 6(1), 75-77。 DOI : 10.12962/j23373539.v6i1.22245
- [14] 因德里扎爾, E. (2016)。Bilou 及其在明打威(明打威)轉型的挑戰。從社會文化角度進行概述。人類學雜誌：社會文化問題。18(1), 51-56。 <https://doi.org/10.25077/jantro.v18.n1.p51-56.2016>
- [15] IRFAN, M. 與 SURYANI, A. (2017)。龍目島旅遊區當地天才型旅遊村組織。國際英國文學與社會科學雜誌, 2(5), 73-82。 <https://dx.doi.org/10.24001/ijels.2.5.10>
- [16] ISA, S.M. 和 RAMLI, L. (2014)。海洋旅遊中影響遊客參觀的因素：馬來西亞檳城 FRI 水族館的經驗教訓。國際文化、旅遊和酒店研究雜誌, 8(1), 103-117。 <https://doi.org/10.1108/IJCTHR-04-2013-0016>
- [17] KAGUNGAN, D. 和 YULIANTI, D. (2019)。利害關係人之間的協同作用將皮桑島開發為海洋旅遊：欠發達地區的案例。社會、文化與政治, 32(1), 16-23。 <https://doi.org/10.20473/mkp.V32I12019.16-23>
- [18] 印尼大辭典 (2017)。 <https://kbbi.kemdikbud.go.id/>
- [19] KOMAINI, A., FITRIA, Y., SUYUTHIE, H. 與 WARYONO, W. (2018)。將明打威群島攝政區南西比路縣梅萊佩特村發展成為體育旅遊試點村。耐力雜誌, 1(1), 482-488。 <http://stamina.pppj.unp.ac.id/index.php/JST/article/view/129>
- [20] KUSBIANTORO, K.A. (2016)。明打威社區的現代化和商業化：現象學描述。社會生態學雜誌, 15(2)。 <https://doi.org/10.5614/sostek.itbj.2016.15.02.2>
- [21] 明打威群島攝政旅遊辦公室 (2017)。明打威群島攝政旅遊發展總體規劃。明打威。
- [22] MUIS, S., VERLAAN, M., WINSEMIUS, H. C., AERTS, J. C. J. H. 與 WARD, P. J. (2016)。風暴潮和極端海平面的全球再分析, 《自然通訊》, 7(11969), 1-11。 DOI : 10.1038/ncomms11969。
- [23] 納皮塔普魯, U. (2015)。透過土耳其藝術產品進行明打威文化旅遊行銷策略。納拉達：設計與藝術雜誌, 2(1), 59-66。
- [24] 印尼政府 (2011)。2011 年第 50 號政府條例, 涉及《2010-2025 年國家旅遊發展總體規劃》。
- [25] 普拉米塔, A.H. (2018)。以當地天才為基礎的旅遊政策, 實現永續發展。東南亞當代商業經濟與法律雜誌, 15(5), 285-293。
- [26] PRAMITA, A.S., HARTIWININGSIH 和 HADAYANI, R.K.A.G.I. (2018)。基於地方智慧的旅遊政策實現永續發展。東南亞當代商業、經濟和法律雜誌, 15(5)。
- [27] 普里斯蒂瓦薩, K.T.W.I. (2017)。明打威群島的遊客動機和對旅遊潛力的看法。旅遊與旅館雜誌, 1(2), 111-117。

- [28] PURWANINGSIH, E. 和 ALMEGI (2016)。西蘇門答臘曼德地區社區海上旅遊業的發展。地理學雜誌, 5(1), 20-28。
- [29] RAZAK, A. 與 RIMADEWI, S. (2013)。千島綜合旅遊區開發。波米茨工程雜誌。2 (1) 。 DOI : 10.12962/j23373539.v2i1.2461。
- [30] RUBIANTI, R. 和 PUTRA (2015)。文打威紋身者的自我概念。心理學實際研究雜誌, 巴東州立大學, 6(2) 。 <https://doi.org/10.24036/rapun.v6i2.6614>
- [31] SABON, V.L., PERDANA, M.T.P., KOROPIT, P.C.S. 和 PIERE, W.C.D. (2018) 。提高印尼旅遊業在東協經濟共同體中的績效的策略。精華：《商業與管理雜誌》, 8(2) 。 <https://doi.org/10.15408/ess.v8i2.5928>
- [32] SALIM, L. H. 與 PURBANI, D. (2015)。東南蘇拉威西省瓦卡托比縣卡勒杜帕島社區海洋旅遊業的發展。人與環境雜誌, 22 (3) , 380-387。 <https://doi.org/10.22146/jml.18765>
- [33] SAMUDRA, K.、BASKORO, M.S.、WISUDO, S.H. 與 ISKANDAR, B.H. (2010) 。邦甲縣卡波波桑地區小島嶼的海上旅遊潛力。海洋漁業：海洋漁業技術與管理雜誌, 1 (2) , 87-96。 <https://doi.org/10.29244/jmf.1.2.87-96>
- [34] 薩裡, D.P. (2016) 。西蘇門答臘省明打威社區的圖魯克·拉蓋儀式中演員的動機。藝術表達雜誌, 18(2), 258-276。 <https://journal.isipadangpanjang.ac.id/index.php/Ekspresi/article/view/96>
- [35] SARI, Y.R. 和 KAGUNGAN, D. (2016)。基於當地智慧和加強鄉村機構的海上旅遊發展政策, 以改善社區福利。生態科學科學雜誌, 14(1), 82-97。 <https://journal.unj.ac.id/unj/index.php/econosains/article/view/595>
- [36] SATRYANTO, R. 與 PAMUNGKAS, A. (2015)。亞齊再也洛吉隆龐海洋旅遊區發展影響因素分析。IST 工程雜誌, 4(1) 。 DOI : 10.12962/j23373539.v4i1.8962。
- [37] TYRRELL, T.、HOLLIGAN, P. 與 MOBLEY, C. (1999)。海洋顆石藻綻放的光學影響。地球物理研究雜誌：海洋, 104 (C2) , 3223-3241。 <https://doi.org/10.1029/1998JC900052>
- [38] TAMARATIKA, F. 和 ROSYIDIE, A. (2017)。將當地智慧融入海灘環境旅遊區的開發中。社會技術雜誌, 16 (1) 。 125-133。 <https://doi.org/10.5614/sostek.itbj.2017.16.1.10>
- [39] 蒂斯德爾, C. 和 威爾遜, C. (2002)。澳洲自然遺址世界遺產名錄：旅遊刺激及其經濟價值。經濟分析與政策, 32(2), 27-49。 [https://doi.org/10.1016/S0313-5926\(02\)50017-5](https://doi.org/10.1016/S0313-5926(02)50017-5)
- [40] TRIYANTI, R. 、 MUAWANAH, U. 、 KURNIASARI, N. 、 SOEJARWO, P.A. 與 FEBRIAN, T. (2020)。西巴布亞馬勞姆卡塔村發展以原住民社區為基礎的海洋生態旅遊作為創意經濟活動的潛力。海事和漁業社會經濟雜誌, 15(1), 93-105。 <https://doi.org/10.15578/jsekp.v15i1.8239>
- [41] UTAMI, L. 、 RAMADHAN, D.S. 與 MUNGgaran, R.A. (2018) 。納德蘭傳統作為基於當地天才的航海教育的作用。OISSA 印尼 EMAS 雜誌, 1(1), 60-66。
- [42] 威梅納, Y. (2018) 。確定明打威群島攝政區態度區將開發為旅遊目的地的潛在優點和缺點。《綜合商業雜誌》, 10(2), 57-65。 <https://doi.org/10.30630/jipb.10.2.40>
- [43] 尤蒂, O.A. (2006) 策略行銷規劃：旅遊目的地。雅加達, 般若波羅密多。
- [44] 尤蒂, O.A. (2016) 。旅遊規劃與發展。雅加達, 巴萊普斯塔卡。
- [45] 於連達, F. (2007)。海洋生態旅遊作為沿海資源的替代性保護性利用。科學研討會論文, 21(1), 119-129。
- [46] 扎姆扎米, L. (2016) 。社會制度對漁民社區保護海洋旅遊智慧的影響。人類學雜誌：社會文化問題, 18 (1) , 57-67。
- [47] 扎姆扎米, L. (2013) 。明打威；被時間侵蝕的日常生活和當地知識傳統。印尼人類學, 34(1)。