

Journal of **INDONESIAN TOURISM AND DEVELOPMENT STUDIES**



Published by

Graduate Program, University of Brawijaya

Collaboration with

East Java Ecotourism Forum & Center of Tourism Study Brawijaya University

Journal of Indonesian Tourism and Development Studies

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Tourism Attractions and Infrastructures Evaluation in Loksado Tourism Area, Hulu Sungai Selatan Regency, South Kalimantan

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Abstract

The aim of the study is to descriptively evaluate the tourism attraction and infrastructure in Loksado, Hulu Sungai Selatan Regency, South Kalimantan. Field data was collected through ground checking and listing all aspects of infrastructures, including the condition of road, transportation, accommodation, bridge, houses, and conditions of the tourism object. The result shows that tourism grows significantly in Hulu Sungai Selatan Regency, with Loksado area as a hot spot for tourism activities and developments. Loksado is productive in term of natural and cultural resources that are potential to be developed as the tourist attraction. However, there are problems related to the accessibility with main threat from slippery clay path and landslide. Many build facilities and infrastructures seem to be less managed, and many of them are in development phases. These lead to the weaknesses of the tourism development in Loksado. Community-based tourism appears to be important to promote, with the particular objectives is increasing the local benefit to increase community participation in tourism attraction and infrastructure management. It is also possible to increase local community in accommodation services.

Keywords: infrastructure, landslide, Loksado, tourism facility, tropical forest.

INTRODUCTION

Nowadays, tourism is an important business in many areas. Tourism facility is an essential component in the travel destinations. It has contribution and relationship to create travel satisfaction, and therefore influence the sustainability of tourism destination. Developing tourism and hospitality properties and facilities become ultimate program for planner and local government. It is especially important as a crucial factor for human relaxation and satisfaction.

The tourism industry is moving through a best quality standard service in all aspect of tourism facility and infrastructure [1]. The close relationship between infrastructure and tourism development has been theoretically and practically confirmed by many researchers [2,3,4]. Many countries are in early stages of development, but there is a trend to the rapid and massive development. The development of tourism infrastructure, therefore, should consider environmental aspect, in which biodiversity is important. In tropical countries such as Indonesia, such issues are of particular importance [5,6].

Tourists who are visited many interesting objects in tourism industry need fundamental

aspect, which is important to enhance visitor's satisfaction. It can be classified into accessibility, amenity, attraction, and ancillary services. The requirement of such issue was considered necessary and determines the success of tourism destinations. The accessibility provides access to the tourist attraction and facilitates tourist movement to explore all of the desired attraction and destinations [7].

Modern countries often supported by the high quality of tourism facility. The problem of the infrastructure often found in developing countries. The most common problem, especially in an infrastructure quality, is a lack of human resources capacity in the planning phase. This relatively complex phenomena produces a large number of operational barrier and limitation. Tourism infrastructure and the facility was developed and focused on the physical and aesthetical aspect and loss the consideration of the environmental issue. The involvement of local community in tourism infrastructure management was inadequate. This becomes the limitation for sustainable infrastructure management in many developing countries [5,6,8].

Hulu Sungai Selatan (HSS) Regency has many tourist destinations including cultural, historical, natural, religious, culinary, and art tourisms [9]. One of the most famous nature-based destinations is Loksado. In 2011, Loksado has been declared as national tourism strategic area

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(*Kawasan Strategis Pariwisata Nasional*) [10]. It includes sub-regencies of Kandangan, Angkinang, Telaga Langsat, Padang Batung, and Loksado. The declaration of such area as a strategic area of tourism destination in national levels related to the natural and cultural richness of Loksado area.

The area of Loksado is various in term of landscapes feature, ranging from tropical forest, slopes, and rivers. The area is home to local people called Dayak Meratus. The local people have the indigenous knowledge and local wisdom that contribute significantly to resources utilization. The development of tourism in Hulu Sungai Selatan needs the comprehensive planning which are able to ensure the sustainability and competitiveness of Hulu Sungai Selatan as a travel destination. The development of tourism infrastructure and facility, as well as amenity facility, is crucial factors that should be developed in Hulu Sungai Selatan. The aim of the study is to descriptively evaluate on the tourism attraction and infrastructure in Hulu Sungai Selatan Regency, South Kalimantan to support the tourism industry.

RESEARCH METHOD

Study Area

The research was conducted at Hulu Sungai Selatan (HSS) Regency in South Kalimantan. Geographically, HSS is a hilly area with many hills exists to construct the landscape. There are many slopes and rivers stream in HSS. The

average of temperature was about 26.25°C–27.25°C and humidity was about 76.5%-77%. Hulu Sungai Selatan Regency consists of several sub-regency, namely Daha Utara, Daha Barat, Daha Selatan, Kalumpang, Simpbur, Kandangan, Angkinang, Telaga Langsat, Sungai Raya, Padang Batung and Loksado (Fig. 1). Loksado has been known as a tourism destination in HSS. The Loksado occupy an area about 33.89 km². Loksado Sub-regency has 11 villages with Dayak Loksado as a dominant local population. Some area located at 1000 m asl, with averages of slope about 25% to 40%. These lead to the soil erosion in Loksado area. The incident of landslide often occurs in the area with steep area and loss of vegetation, such as Tanuhi village. Agricultural commodity community plantation includes rubber, clove, and peer [11].

Method

Methods consist of several steps, namely preparation, identification, analysis, and conclusion. Field data was collected through ground checking and listing all aspect of infrastructure, including the condition of road, transportation, accommodation, bridge, houses, and conditions of tourism object. Secondary data was collected from tourism office and Regency Planning Office (BAPPEDA) in Kandangan. Interviews with tourists and the officers was performed in Kandangan. Data was analyzed descriptively.

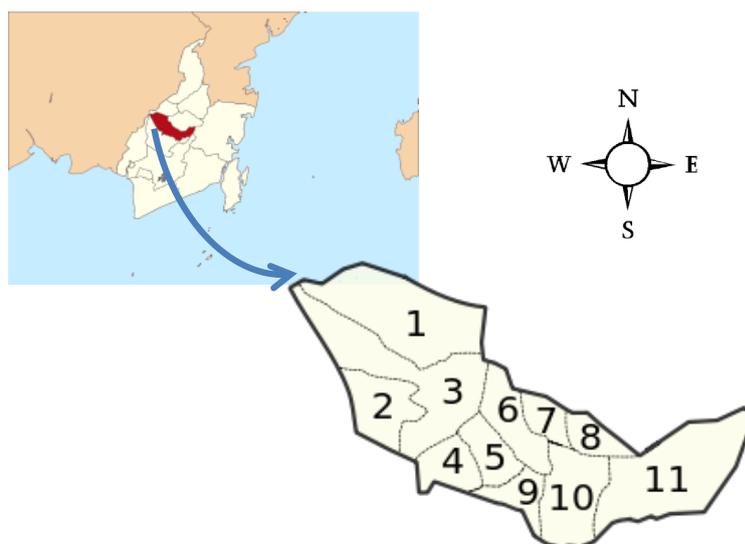


Figure 1. Map of Hulu Sungai. **Source:** Regency Planning Office (BAPPEDA) of Hulu Sungai Selatan Regency
Notes: (1) Daha Utara, (2) Daha Barat, (3) Daha Selatan, (4) Kalumpang, (5) Simpbur, (6) Kandangan, (7) Angkinang, (8) Telaga Langsat, (9) Sungai Raya, (10) Padang Batung and (11) Loksado

RESULT AND DISCUSSION

Accessibility

Access is essential for tourism [12]. Most people (especially local tourists) have insufficient time for their travel, and if the tourism attractions are hard or take a long time to reach, few tourists are likely to visit. The aspect related to the accessibility includes roads, trails, and bridges. In Loksado area, a threat to the accessibility is landslide which area often occurs in the rainy season. The incident of landslides mainly related to the forest and land disturbance. Absences of vegetation lead to the weak soil structure, which led to the erosion and landslide. According to statistical data, annual rainfall can reach 1,819.5 mm with the number of rain days about 181 days. The high rate of rainfall seems to contribute to the incident of landslide and erosion. Hazard intensity appears to arise in the rainy season when the number of rainfall was high [11].

A typical retaining wall used to overcome and prevent the landslide in Loksado is a wall of gabion (Fig. 2). The gabion is a wire-mesh container filled with stones and used in modular fashion to fortify slope and reduce erosion [13].

Besides the aesthetical and natural look, this method is selected because stone is widely available around the site. Figure 3a shows an example of a slope failure occurred on the road between Tanuhi and Loksado in 2009. A retaining wall made of gabion was constructed in the current year to prevent further landslide (Fig. 3b).

A large slope failure happened and covered the whole construction in 2012 (Fig. 3c). Therefore, besides a retaining wall such as gabion, improving the condition of the plants on the slopes should be also performed. The use of

vegetation for preventing and controlling slope failure and erosion has being practiced throughout the world [14].

Besides roads and slopes, the trails are also available in Loksado area. These connect Loksado with other attraction locations like Haratai waterfall. Figure 4 shows several trails with different conditions. There are clay pathway without any cover material (Fig. 4a), path covered by coarse grain such as gravel (Fig. 4b), and the other covered by concrete (Fig. 4c). The surface without a cover material is slippery, and it makes a problem for travelers to across the road.

The other infrastructure that is of concern in Loksado is bridges especially in the trails. The suspension bridges are accessible with different conditions as shown in Figure 5. These bridges can only be crossed by people, bicycles, motorcycles, and other light transportations.

Water-transporting still contributes to the transportation system in many areas in HSS, including Loksado [15]. Water transportation in Loksado was facilitated by traditional bamboo boat/bamboo rafting. Traditionally, this vehicle was used to distribute crops and other agricultural product of local people in Loksado area. For a long time, river is one of the primary transportation tools in Loksado and it has been the part of local culture in Loksado. Recently, however, with the increase of the role of land transportation, the role of water transportation decreases. The bamboo rafting is used more for tourism than a medium of transportation (Fig. 6). The new road has been established, and many bridges were constructed to facilitate people movement in the terrestrial area. In other sides, it becomes opportunities for tourism development.



Figure 2. Gabion constructions in Loksado (personal documentation, 2017)

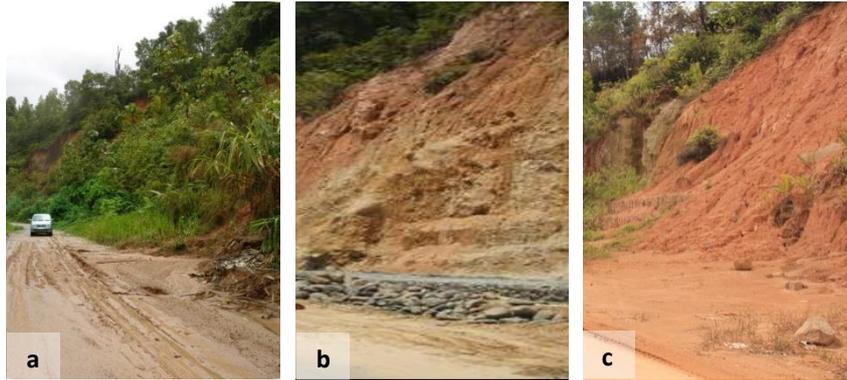


Figure 3. Landslides in Loksado Tourism Area (personal documentation, 2017)



Figure 4. The Trails Connecting Loksado with Haratai Waterfall (personal documentation, 2017)



Figure. 5. The Suspension Bridge in Loksado Area (personal documentation, 2017)



Figure 6. Bamboo rafting in Loksado (personal documentation, 2017)

Accommodation

Accommodation is an important instrument in a tourism industry [1]. The accommodation was rare to found in Loksado, indicates that this sector should be improved significantly. There are no star hotel and or accredited hotel. All of the hotel and accommodation was simple to provide room for a stay in regular services as shown in Table 1.

The data from Table 1 shows that accommodation is limited. The number of room was limited, and in the future, it potentially becomes problems for tourism growth. The government should encourage privates sector to invest and join in tourism development sector.

Table 1. Hotel and accommodation in Hulu Sungai Selatan

Hotels	Location	rooms
1. Hot-water Spring Tanuhi	Tanuhi, Loksado	20
2. Wisma Loksado	Loksado	8
3. Graha Amandit	Loksado	16
4. Bangkai	Kandangan	13
5. Loksado	Kandangan	10
6. Mutia	Kandangan	11
7. Wisma Duta	Kandangan	17
8. Mahligai Antaludin	Kandangan	8

Source: Hulu Sungai Selatan Department of Tourism [16]

There are also opportunities to support community-based accommodation. Local government can strengthen and enhance the participation of local community in accommodation through cooperation concept. It is become the entry point to the establishment of community-based tourism, in which community received economic benefits from tourism sector [17,18].

Problems seem to be related to the less understanding about tourism among the local community. Local government, academician, local NGOs and other tourism stakeholder has the responsibility to educate local people to be aware and understand about the potentiality of tourism.

Attraction

Loksado has both natural and human-made attraction. The original attraction object are a various form of biodiversity of landscape in Hulu Sungai Selatan Regency which also famous and rich with cultural attraction, including event, festival, and heritages. There are 11 calendar events of tourism; represent the commitment of HSS Regency to provides continuous event

attraction to both international and domestic tourists. Loksado is famous for bamboo rafting which unique to the area. There are 9 natural attractions has been identified, including waterfall, hot spring, cave, and forest.

Human-made includes many objects which area developed by the government. It includes open area and park that provide spaces for the city dweller to enjoy nature. Many facilities in public space potentially attract tourist, but there is few management led to the many facilities in minor condition.

Many tourism facilities are under less management. Lack of funding and personal skill to manage of tourism attraction and facility seems to be the contributors for poor management of attraction and facility (Figu.7-8). Some attractions have potentials, form of tourism to be offered, tourist demands, and specific problems and many of them have similar cases (Table 2). According Table 2, attractions in Loksado have similar forms of tourism (i.e., natural tourism) and potentials of natural tropical forest views. From the analysis, several weaknesses were found in Loksado tourism area. It includes:

- Poor management of tourism facilities
- Quality of tourism corridor movement
- Attraction management
- Transportation, including road, sign board, and accessibility.
- Telecommunications network including internet

Poor management of tourism facilities includes the absence of an efficient maintenance management system. It is also one of the main concerns in maintaining public tourism infrastructure. To assure that all maintenance activities can be entirely performed, the control mechanism must be integrated by a particular team [19]. The difficulty, generally in Indonesia, is that the infrastructures are maintained by different ministry.

The last weakness is contrary to the desire of tourists to get peace and comfort without disruption by the telecommunications. However, the visitors, especially local tourists, always want to upload all their activities during their vacation directly and immediately. Therefore, the Internet is a necessity.



Figure 7. Tourism attractions in Loksado Hulu Sungai Selatan

Sources: Regency Planning Office (BAPPEDA) of Hulu Sungai Selatan Regency



Figure 8. Tourism facilities in Loksado

Sources: Regency Planning Office (BAPPEDA) of Hulu Sungai Selatan Regency

Table 2. Potentials, Forms, Tourist Demands, and Problems Facing by Tourism Attraction in Loksado

Natural Attraction (Location)	Potentials	Problems	Forms of Tourism	Tourist Demand
Kantawan Mountain (Muara Hatip Village, 27 km from Kandangan)	The views of natural tropical forests with diverse flora and fauna typical of Kalimantan	Not well managed Inadequate parking areas	Natural Tourism Special interest tours include: tracking, mountain bike, rock climbing, hiking, and bike trail	public toilet, restaurant, and rest area
Tanuhi Hot Springs (Tanuhi Village, 33 km from Kandangan)	Thermal baths, pools and cottages that offer views of unspoiled natural atmosphere of Loksado	The cottages are not well managed Number of waiters are limited Lack of communications network	Natural Tourism Health travel and relaxation with a hot water bath	Improving of cottage services The availability of the communications network including internet
Kilat Api Waterfall (Tanuhi Village, 34 km from Kandangan)	A one-level waterfall with views of unspoiled natural atmosphere of Loksado	Unmanaged Limited access due to damage bridge Lack of tourism facilities	Natural Tourism Special interest tours include: tracking, mountain bike, rock climbing, hiking, and bike trail	public toilet, restaurant, and rest point, signboard, telecommunications network including internet
Tangkaramin Waterfall (malinau Village, 36 km from Kandangan)	A Three-level waterfall with views of natural tropical forests with diverse flora and fauna typical of Kalimantan	Not well managed Lack of supporting facilities	Natural Tourism Special interest tours include: tracking, mountain bike, rock climbing, hiking, and bike trail	public toilet, restaurant, and rest point, signboard, telecommunications network including internet
Balai Adat Bukit/Dayak (39 km from Kandangan)	The traditional house of Dayak with its own merits, culture is extremely exist, friendly community	Not well managed Limited access	Cultural Tourism Education tourism Culinary tour Tracking and bamboo rafting	telecommunications network including internet, Sign board, tour guide, gift shop
Riam Anai (Lok Lahung Village, 42 km from Kandangan)	A one-level waterfall with views of unspoiled natural atmosphere of Loksado	Not well managed Lack of supporting facilities	Natural Tourism Special interest tours include: tracking, mountain bike, rock climbing, hiking, and bike trail	public toilet, restaurant, and rest point, signboard, telecommunications network including internet
Haratai Waterfall (Haratai Village, 45 km from Kandangan)	A three-level waterfall with views of natural tropical forests with diverse flora and fauna typical of Kalimantan	Not well managed Lack of supporting facilities	Natural Tourism Special interest tours include: tracking, mountain bike, rock climbing, hiking, and bike trail	public toilet, restaurant, and rest point, signboard, telecommunications network including internet
Tinggiran Hayam Waterfall (Kamawakan Village, 51 km from Kandangan)	A three-level waterfall with views of natural tropical forests with diverse flora and fauna typical of Kalimantan	Not well managed Lack of supporting facilities	Natural Tourism Special interest tours include: tracking, mountain bike, rock climbing, hiking, and bike trail	public toilet, restaurant, and rest point, signboard, telecommunications network including internet
Uring Waterfall (Kamawakan Village, 53 km from Kandangan)	A three-level waterfall with unspoiled natural beauty	Not well managed Lack of supporting facilities	Natural Tourism Special interest tours include: tracking, mountain bike, rock climbing, hiking, and bike trail	public toilet, restaurant, and rest point, signboard, telecommunications network including internet

CONCLUSION

Loksado is rich in term of natural and cultural tourisms. The main attraction of Loksado is the views of natural tropical forest with diverse flora and fauna typical of Kalimantan. If managed

properly, it becomes the potential resources to generated tourism generally in Hulu Sungai Selatan. Several weaknesses are found in Loksado tourism area, including poor management of tourism facility, quality of travel corridor movement, bad attraction management,

some problems in transportation (i.e., road, signboard, and accessibility), and telecommunication network. The aspect related to the accessibility includes roads itself, trails, and bridges with the main threats from the slippery clay path and the landslide of slopes. Community-based tourism appears to be important to promote, with the particular objectives is increasing the local benefit to increase community participation in tourism attraction and infrastructure management. It is also possible to increase local community in accommodation services.

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Ecotourism Development Strategy of Pelawan Forest in Central Bangka, Bangka Belitung

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Abstract

Ecotourism has a very important role in increasing the community income, cultural preservation, and environmental conservation efforts at a tourist attraction. This study aims to create the ecotourism development strategy in Pelawan Forest by involving local communities. Data collection techniques in this study using distributing questionnaires to tourists. Data were analyzed using a Likert scale analysis, IFAS/EFAS analysis, SWOT analysis to formulate ecotourism development strategy viewed factors internal and external as well Grand strategy matrix. The results research using Likert scale showed that the various attractions i.e. the area that is still awake, unique flora and fauna, the existence of alternative tourism can become a tourist attraction potential. Meanwhile, the potential demand for tourism is mostly students and employees. Ecotourism development of Pelawan Forest based on SWOT analysis can be offered by involving local communities and stakeholders in support of sustainable tourism. The position of the Grand Strategy Matrix lies in the ordinate quadrant 2, is characterized by a weak competitive position in fast growing market. Therefore, it is necessary to take counteractive action so that the ability to compete effectively is stronger and can find its space in a more competitive environment, thus becoming a sustainable ecotourism.

Keywords: Development strategy, ecotourism, Pelawan Forest.

INTRODUCTION

Recently, tourism has been considered as one of the new economic machines in Bangka Belitung Province. Statistical data shows that tourism grows significantly and the economic impact of tourism has been reported significant. In 2011, Bangka Belitung has visited by 1,495 international tourist and 191,200 domestic tourists. In 2012, a number of international tourists were recorded about 1,864 while a domestic tourist was recorded about 221,747. The continuous increase was recorded in 2013, where international tourist arrival was about 2,035 and domestic tourist as recorded about 236,370. In 2015, a number of international tourists were 3,498 and a domestic tourist was about 301,938 [1].

The use of natural resources for tourism development has been identified significant. Scholar points out that natural resources, especially in tropical countries, is crucial to attracting tourist. The abundance and luxuries tropical forest is a magnet for tourism development. The mutual relationship between tourism and conservation has been widely

discussed and conclude that tourism and conservation can be in harmony [2,3].

The recent development of tourism in Bangka Belitung has also the significant impact on forest conservation. Forest abundance in Bangka Belitung a there is opportunities for tourism in the forest area. Tourism, if properly managed, contributes to the forest conservation. As many developing countries, however, the uses of the forest as tourism destination related to the local community existence, in which their contribution to sustainable and successful of forest-based tourism is crucial [4,5]. Another issue of tourism development in Bangka Belitung was related to the tourism satisfaction and conservation agenda, in which tourism learn about biodiversity. Therefore, assessing the quality of destination was important.

The sustainable tourism in Pelawan Forest need a strategy to increase tourism benefit to biodiversity conservation and local community development. It is also crucial in ensure economic benefit derived from tourism, while tourism satisfaction as achieved. As far, few studies were implemented in Pelawan forest. The aims of the research are to analyses the potentiality of the Pelawan Forest as a tourism destination.

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RESEARCH METHOD

Study Area

The research was conducted at Pelawan Forest, Namang Village, Central Bangka District, Bangka Belitung. The Pelawan Forest has a total area are 47.4 ha has been used as a Biodiversity Park of

Pelawan Forest in 2013. Geographically it is located on 106°11'00,19 BT and 2°22'03,25 LS (Fig. 1). Biodiversity Park of Pelawan Forest is included in category IV in the list of the United Nations (UN), with the main purpose to protect, conserve and restore species and habitats [6].

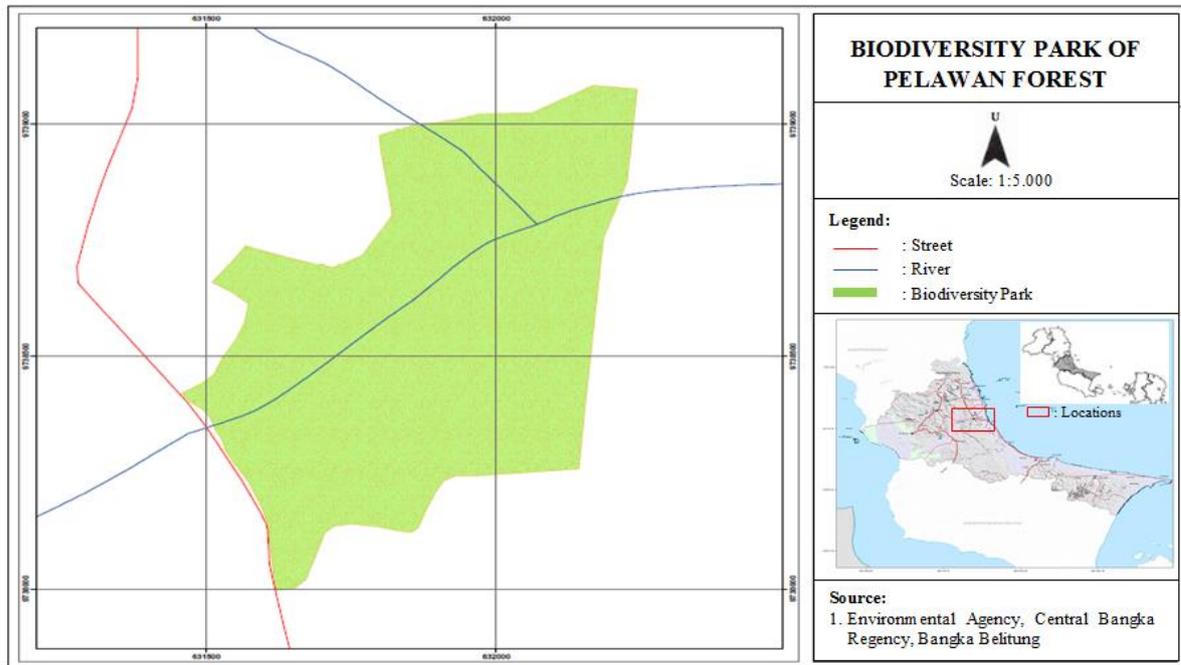


Figure 1. Map Biodiversity Park of Pelawan Forest and Research Sites

Methods

Data Collection

The source of this research data in the form of qualitative and quantitative data that can be calculated or processed using statistics to draw conclusions, such as weighted average and assessment of tourists on the development of ecotourism of Pelawan Forest. The data is taken by purposive sampling by using a sampling of 100 tourists who have visited Pelawan Forest. Visitors assessment on Pelawan Forest as tourism destination was perform through questionnaire assessment of five elements, including tourist perception to assess Pelawan Forest as ecotourism objects (five indicators of assessment), supporting elements of ecotourism attraction (seven indicators of assessment), facilities and infrastructure of attraction (seven indicators of assessment), efforts to promote the attractions (two assessment indicators) and assessment on services provided by the local people for the traveler (five indicators of assessment).

Data Analysis

The obtained data analysed by using SWOT analysis, comparing the internal and external factors in the form of IFAS (Internal Factor Analysis Summary) matrix and EFAS (External Factor Analysis Summary) matrix quantitatively. Each factor was given a value rating from 1 to 4 (1= the underlying weakness; 2= minor weakness; 3= sufficient strength; and 4= great strength). The final result can be determined by the amount of weight multiplied by the value [7].

The results of EFAS/IFAS matrix become coordinate points in the SWOT diagram. IFAS matrix, if the value is more than 2.5 showed that there was more strength than a weakness. This also applied to EFAS matrix, if the value was more than 2.5, it showed that more opportunities than threats [8]. In addition, the determination of performed SWOT analysis was to analyze the advantages and disadvantages of an ecotourism location as well as suggestions for improvement of ecotourism plan [9].

RESULT AND DISCUSSION

Tourist perspective on Tourism Program in Pelawan Forest

Characteristics of Respondents

Results of a survey conducted with a sample of 100 respondents consisting of 50 respondents of local communities Bangka Belitung and 50 respondents of outside Bangka Belitung areas including foreign countries. The general profile of respondents was presented in (Table 1).

The respondents' profile who visit Pelawan Forest similar with the market segment of ecotourism. According to The International Ecotourism Society (TIES), the profile is in accordance with ecotourism principles, such a positive impact and provide a memorable experience for visitors; build environmental and cultural awareness and provide direct benefits from the tourist revenue to conserve.

Table 1. General Profile of Respondents

Variable	Total (%)
Gender	
Male	58
Female	42
Age	
18-25	41
26-35	34
36-45	13
46-65	12
Education	
Primary School	1
Junior High School	1
Senior High School	16
Academy/College	82
Work	
Student	26
Government Employees	34
Private Employees	26
Entrepreneur and Other	7
Visit	
1-2 times	82
3-4 times	8
≥ 5 times	10
Income (Monthly)	
< Rp. 1.000.0000	23
Rp. 1.100.000-Rp. 2.000.000	8
Rp. 2.100.000-Rp. 3.000.000	41
Rp. 3.100.000-Rp. 5.000.000	23
> Rp. 5.000.0000	3

Source: Data analysis, 2017.

Visitors perception

The result of the analysis (Table 2), shows that Pelawan Forests is declared eligible and agree to be developed. The average value of the tourist's perception on each element of assessment, such as the tourist's perception on to the develop-

ment of Pelawan Forest as ecotourism attractions (4.38). This is because the ecotourism object Pelawan Forest has implemented conservation efforts and community involvement in terms of management so we can say that it has an economic impact on local communities. The average value in each of the other aspects such as eco-tourism attraction (4.05), infrastructure (3.60), promotion (3.96) and the services offered by the local community (3.99).

This means that Pelawan Forest at this time can be used as one of the special tourist attraction of ecotourism that is supported with unique natural resources/unique that is not owned in other areas. In addition, various ecotourism attractions such as wild honey bee observation, observation of opponent mushrooms, bird watching tours, riding tours to culinary tourism. Based on the analysis of Likert analysis, it can be explained that the need for the improvement of supporting facilities and infrastructure and still very necessary to be promoted so that tourists from outside the Bangka Belitung region more familiar with this Pelawan Forest ecotourism. The role of local communities as ecotourism services is also an important concern for promoting the integration of conservation and sustainable development of Pelawan Forest.

Ecotourism development strategy

Internal factor analysis

IFAS matrix presented in (Table 3), showed that there were 14 factors related to the strength and weaknesses. Opportunities weight value was between 0.05 and 0.07 with a score of effectiveness between 3 and 4, while the weakness weighs between 0.06 and 0.12 with a score of the effectiveness of 1 and 3.

Thus, the total internal factor (2.70) is more than 2.5 which means more strength than a weakness. This is supported by the potential of flora and fauna is quite high, diversity of ecotourism attractions support and accessibility to the location of ecotourism objects that are strategic enough. Some fundamental issues remain a disadvantage in the development of Pelawan Forest ecotourism, the need for increased awareness of actors and managers as a service to promote awareness of conservation and the environment, in order to minimize the current weakness factor. The existing potential becomes the strength to see the weakness in supporting the development of Pelawan Forest by considering the concept of accessibility,

power, and resilience that can be used as a way of sustainable management as an object of ecotourism [10].

External factor analysis

The external aspects of tourism development are developed using the EFAS (External Factor Analysis Summary) matrix shown in Table 4. There are 8 factors related to probability, with weights of 0.06 and 0.12 with scores of 3 and 4.

The most important factors that become opportunities based on the highest weight is the development of special economic zones. Bangka Belitung tourism can attract the number of tourist visits, so it can affect the increase in local revenue with the development of sustainable tourism and help the local economy with the creation of employment.

While external factors Threat consisting of 3 factors with a weight of 0.09 and 0.17 in the range of scores 3 and 4. The main factors that pose respectively include the existence of mass

tourist support that can damage the habitat of flora and fauna, less favorable conditions for tourists if the icon/characteristic of this tour does not exist when visited and Lack of attention to the environmental impact of various development projects in the object of tours. Ultimately, the total value of external factor 3.11 is more than 2.5 which means that the odds are more of a threat.

The result of external factor analysis shows that the development of Pelawan forest ecotourism must consider its environment as a tourist object. The goal is to meet the elements of conservation of natural resources and benefits in a sustainable manner to support the improvement of the community and regional quality of life, as well as providing a pleasant experience for visiting tourists. Therefore, ecotourism development requires prudent decision making to minimize environmental impact [11].

Table 2. Traveler ratings to attraction in Pelawan Forest

Elements of evaluation	Assessment indicators	Value perception	Information
Ecotourism perception	Pelawan Forests is very potential and interesting to be attractions	4.17	Agree
	Pelawan Forest has made some conservation efforts	4.33	Strongly agree
	Pelawan Forests involve local communities in the management	4.44	Strongly agree
	Pelawan Forests can provide economic benefits for the society	4.48	Strongly agree
Ecotourism attraction	Management and development is still applying local wisdom	4.49	Strongly agree
	Regional tourist objects still maintained its authenticity	4.28	Strongly agree
	Flora and fauna are very unique/distinctive compared to other regions	3.89	Agree
	The existence of wild honey bees observation and fungus of Pelawan	4.35	Strongly agree
	The development of night tourism, bee therapy, and bird watching	3.86	Agree
	The development of alternative tourism such as culinary and agro-tourism	3.79	Agree
	The development of camping ground area for camp activities	3.89	Agree
Pelawan Forest is made to be education/learning and research center	4.28	Strongly agree	
Infrastructure	Road access leading to the attraction can be passed/taken easily	4.12	Agree
	Horse rental can help travelers enjoy the scenery	4.00	Agree
	Tourist train provides access to leading alternative travel objects	3.82	Agree
	The need for the provision of homestay for tourists	3.52	Agree
	Supporting facilities such as places of worship, restrooms and parking lots	3.33	Neither
	Bridges in the region to help tourists enjoy the sights	3.66	Agree
Promotion	Information center providing insight to recognize the tourism potential	2.79	Neither
	Promotion is performed with involvement of local communities and the government	4.15	Agree
Services	Pelawan Forest Promotion through printed/online medias and tourism events has often been performed	3.77	Agree
	Local communities is friendly to tourists visiting	4.27	Strongly agree
	Local communities seek to provide the needs of tourists visiting	4.00	Agree
	Local communities are willing to guide for travelers	3.93	Agree
	Local communities provide knowledge about the history/tourism potential	3.89	Agree
	the level of security in attraction areas is optimized	3.89	Agree

Source: Data analysis, 2017.

Table 3. IFAS (Internal Factor Analysis) Summary

No.	Internal Factors (1)	Value		
		Weight (2)	Rating (3)	Score (4*)
Strength				
1.	The potential biodiversity of flora and fauna of Pelawan Forest is high	0.07	4	0.28
2.	Involvement of local communities in managing tourism objects	0.06	4	0.24
3.	The access road to tourism place is very easily passed/taken	0.05	3	0.15
4.	There is an alternative form of tourism places, such as pepper plantations agro, culinary tours, horse riding and bird watching	0.08	4	0.32
5.	The existence of Pelawan trees, honeybee, and Pelawan mushrooms which become an icon and a hallmark attraction of Pelawan forest	0.05	4	0.20
6.	The existence of tourism objects is not too far from the center of the capital city of province, district, and airport	0.05	3	0.15
Weaknesses				
1.	Lack of basic facilities and infrastructure in tourism places	0.07	3	0.21
2.	Limited professional tour guide	0.06	2	0.12
3.	Lack of information on the history and potential tourism place	0.06	1	0.06
4.	Ignoring environmental hygiene, especially the waste of food	0.07	2	0.14
5.	The existing supporting facilities in tourism place are in poorly maintained	0.11	2	0.22
6.	Lack of commitment and support from various sectors in developing tourism potential	0.07	3	0.21
7.	Lack of understanding in tourism development for sustainable development	0.12	2	0.24
8.	Lack of strategy in promoting and marketing the tourism place of Pelawan Forest	0.08	2	0.16
Total		1	-	2.70

Source: Data analysis, 2017. **Note:** *) The results of the multiplication of the weights (2) and rating (3).

SWOT analysis

Evaluation of the results of these internal factors such as local analysis which consists of strengths and weaknesses, while the analysis of external factors such as global analysis of opportunities and threats. Therefore, the need to create a matrix, swot analysis to determine SO, WO, ST, and WT. The four strategies are used in the SWOT analysis can be presented (Table 5) as follows:

- a) SO: using internal strength to take the opportunities that exist outside.
- b) WO: overcome internal weaknesses by taking opportunities from the outside.
- c) ST: using internal strength to avoid the threats that exist outside.
- d) WT: minimizing weaknesses and threats that may exist.

SWOT analysis also shows that the current situation of Pelawan Forest is worthy to serve in terms of potential ecotourism, conservation of natural resources and involving the local community in terms of management. The existence of this potential can certainly make an important contribution to society through the development of ecotourism that contributes directly to the improvement of the economy [12]. This suggests that the ecotourism of Pelawan Forest can be categorized as a sustainable tourism aims to enhance the benefits and minimize the effects of hazards through

conservation, can be assessed using indicators of socio-cultural, community's economic income and environmental factors [13].

Tourism remains key sources of foreign exchange for one-third of developing countries and one-half of less developed countries and has significant potential as a driver for growth in the world economy. Furthermore, ecotourism and sustainable tourism, commonly referred to as "green tourism", carry the potential to increase employment directly; reduce poverty at the community level; improve efficiencies of water, energy, food supply, and waste ecosystem; and create locally production goods and services through cultural heritage and environmental conservation efforts [14].

Sustainable development is the most appropriate model for ecotourism. The variation of biodiversity provides an opportunity for visitors to enjoy these attractions besides offering rewards that benefit the local community. The stakeholders are not only economically profitable; their role as agents of conservation for environmental protection is also highlighted. The role of local communities and stakeholders is mutually beneficial which is seen as an economic concept of sustainability in increasing long-term economic business objectives and environmental stewardship. In reality, however, any infrastructure development can gradually erode the environmental resources [11]. From the SWOT analysis, it can be seen that

there are four strategies that can be executed, namely market development strategy, horizontal integration strategy, product development strategy, and market penetrate strategy.

Internal-external matrix

Based on the value of internal factors (Table 3) amounted to 2.70 which indicated that

strength is more than a threat, and the value of external factors (Table 4) of 3.11, which means more opportunities than threats. Therefore, a matrix of strategy position development of Pelawan Forest as an ecotourism object based on scores obtained from internal factors and external factors such as those occurring in (Fig. 2).

Table 4. EFAS (External Factor Analysis) Summary

No.	External Factors (1)	Value		
		Weight (2)	Rating (3)	Score (4*)
Opportunities				
1.	Creating jobs and providing direct benefits to the community	0.08	4	0.32
2.	The potential for research and education is very high	0.07	4	0.28
3.	Conservation of Pelawan forest ecosystem is in an effort to reduce the negative impact	0.06	4	0.24
4.	The constant development of tourism so that it is increasing local revenue	0.10	3	0.30
5.	It can attract tourists to exploit the potential of biological, history and social culture resources	0.07	3	0.21
6.	Eligibility in carrying out tourism plan is by taking into account environmental requirements	0.06	4	0.24
7.	The existence of the development of special economic zones of Bangka Belitung tourism to attract number of tourists visit	0.12	3	0.36
8.	The geographical position is very strategic with the other tourist attractions to visit	0.07	4	0.28
Threats				
1.	Lack of attention to the environmental impact of development projects attractions	0.09	2	0.18
2.	The existence of mass tourism that damage the habitat of Pelawan forest flora and fauna	0.17	2	0.34
3.	The situation is less favorable for the rating of if the icon/characteristic does not exist in the time of their travel visit	0.12	3	0.36
Total		1	-	3.11

Source: Data analysis, 2017. **Note: ***) The results of the multiplication of the weights (2) and rating (3).

Table 5. Tourism Development Strategy based on SWOT Analysis

SO strategy
1. Development tourism by making an emphasis on ecotourism objects in promoting the quality of services and products that can be profitable
2. Developing the potential of ecotourism attractions by promoting local knowledge that is unique and distinctive local communities so that it attract tourists
3. Developing the concept of eco-tourism sustainably to attract tourists, students and researchers from various sciences
4. Using the potential of other areas to develop ecotourism in synergy
ST Strategy
1. In order to avoid the negative impacts of tourism on sensitive biodiversity, it is necessary to preserve the value of ecological planning development
2. Improving the facilities and buildings needed to attract number of tourists
3. Improving staff skill to monitor and protect forests, especially in enhancing conservation
4. Improving the information through tourism events and promote through electronic and printed media
5. Conducting an assessment of the environmental impacts of various development projects
WO Strategy
1. Providing a comprehensive tourism plan developed by the local government, organizations and other institutions related to the tourism industry
2. Communicating and introducing Pelawan forest attractions by using an educational package about the environment
3. Preparing travel packages that are run by corporate operators and travel with the collaboration of the government and local communities
4. Improving forest products of Pelawan forest with sustainable development based on local wisdom
WT Strategy
1. Creating a new alternative path for tourists in reducing build up in case there will be mass tourism
2. Conducting environmental education to reduce environmental impact
3. The development of infrastructure should be aligned with the increase of population caused by tourist visits
4. Placing professionals who are able to manage short-term and long-term plans related to ecotourism

Source: Data analysis, 2017.

Total score of internal factors

		High 3.0-4.0	Moderate 2.0-2.99	Low 1.0-1.99
Total score of external factors	High 3.0-4.0	I Growth (concentration through integral vertical)	II Growth (concentration through integral horizontal)	III Shrinkage (through turn down)
	Moderate 2.0-2.99	IV Stability (be careful)	V Growth (concentration through integral horizontal)	VI Shrinkage
	Low 1.0-1.99	VII Growth (concentric diversification)	VIII Growth (concentric diversification)	XI Shrinkage (liquidation or bankrupt)

3.11 ————— 2.70

Figure 2. Matrix of Internal Factors and External Factors

The criteria matrix of internal factors and external factors are included in the first category, which is located in the second quadrant (growth areas). This indicates that the tourism object is included in the second quadrant which can be described as the growing and build, meaning Pelawan Forest is strong enough and has the competence for development as an object of ecotourism, but the current market opportunity is also very threatening the environmental damage from ecotourism object development if not prioritizing conservation efforts.

Grand strategy matrix

Grand strategy matrix is the tool for formulate alternative strategies which based on two evaluative dimensions: competitive position and market growth. Appropriate strategies for an organization to consider are listed in sequential order of attractiveness in each quadrant of the matrix. Based on the internal factors and external factors which are known from formulation strategy stage, the Pelawan Forest Grand Strategy Matrix is in quadrant II (Fig. 3).

The matrix above shows that develop of Pelawan Forest in quadrant two of the Grand Strategy Matrix is characterized with a weak competitive position in fast growing market. The Pelawan Forest needs to evaluate for identify the gray areas of incompetence and the reasons behind such ineffectiveness. Moreover, adoption of counteractive measures is also indispensable

so that ability to compete effectively strengthens and the firm can find its space in the more competitive environment. Because in quadrant two are in a rapid market growth industry, therefore, an intensive strategy, more appropriately, can be classified as the first option to adopt

In a case of the quadrant II does not find any suitable strategy to adopt than divestiture of some divisions can be considered as another option. Such an arrangement may avail the desired funding to invest in the current venture in other divisions to strengthen the competitive position. Moreover, as last resort, liquidation should be considered so that another business can be acquired.

After performing the analysis and knowing the alternative strategies that emerged in the analysis phase through three kinds of techniques, namely SWOT analysis, internal-external matrix and Grand strategy matrix. Pelawan Forest is very appropriate to be a place for ecotourism destination because it has its own characteristics and advantages which are not found in other attractions. So it must be managed in accordance with the principles of sustainable development. The strategies which are needed to support these efforts can be carried out by forming responsible behavior towards environmental conservation. Responsible behavior is not only to the managers but can be maximized if the tourists can also help in order to minimize damage to the environment

[15]. In the context of ecotourism, the environmentally responsible behavior is given when tourists understand the impact of their behavior on the environment and abide by the norms in the ecologic side [16].

Travelers give the opinion about the need for more detail promotional activities about the potential attraction, along with how to enable and enhance the information in the cottage area of Biodiversity Park of Pelawan Forest to tourists who visit as well as the need to increase tourist guide services. So, in order to support the efforts, it is needed for collaboration of each party, the local communities, and governments to build a network in encouraging sustainable tourism development [17].

This research presents ecotourism of Pelawan Forest by using SWOT analysis, internal-external matrix, and Grand strategy matrix. This analysis is

useful to identify the factors positively and negatively affecting the development of sustainable ecotourism in Pelawan Forest and support aggressive strategies. Based on its potential, the priority of ecotourism development strategy can be through the efforts:

- a) coordination between local communities and stakeholders in the ecotourism development of Pelawan Forest;
- b) rearrangement of space for ecotourism activities, improvement of infrastructure and supporting units of tourist needs;
- c) giving knowledge to the community on the management and training of effective and productive ecotourism management;
- d) conduct a study on the impact of tourism impact on environmental conditions with regular monitoring and sustainable

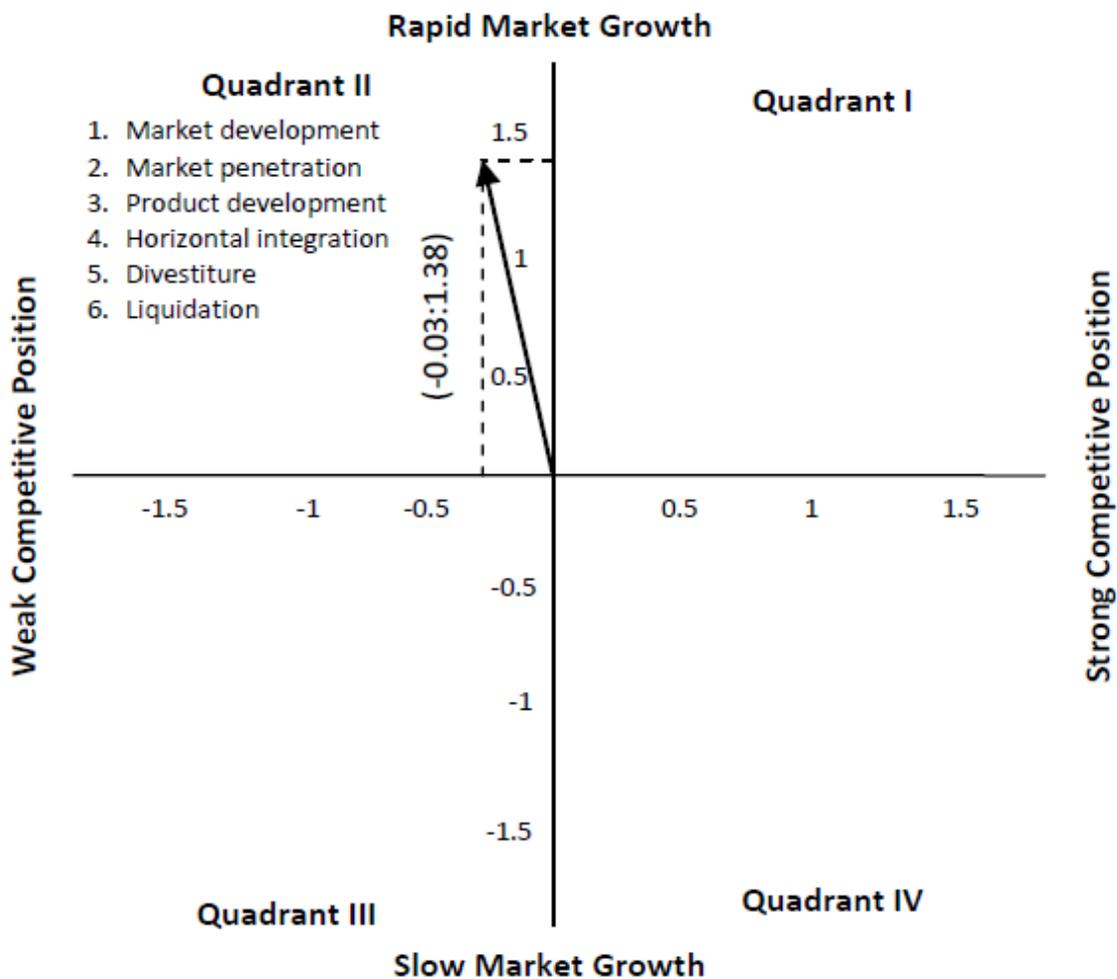


Figure 3. Grand strategy matrix ecotourism development of Pelawan Forest

CONCLUSION

The main strength of the Pelawan forest ecotourism lies in the sustainable conservation of natural resources, the diversity of major tourist attractions as well as alternative tourism and the involvement of communities in supporting environmental conservation efforts, so it can be an opportunity to create jobs and provide direct economic benefits. Based on the analysis that has been done that ecotourism of Pelawan Forest is strong enough and has competence for development, but the current market opportunity is also very threatening the occurrence of the forest environment damage. Therefore, need to seriously evaluate their approach to the market. Although their industry is growing, they are not able to compete effectively, and they need to figure out why the company's approach is not currently effective and how companies find out why the company's current approach is ineffective and how it improves its competitiveness. For this purpose intensive strategy can be used as the primary choice to consider. But if it lacks a competitive advantage, horizontal integration becomes another good alternative. As a last resort, divestiture or liquidation may be considered.

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An Application of Geographic Information System to Identify the Suitability of Sea Cucumbers (*Holothuria scabra*) in West Lombok Waters

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Abstract

This study was conducted on 17th October - 27th November 2016 at Gili Asahan, Gili Layar, and Gili Gede in West Sekotong, Lombok, West Nusa Tenggara. The purpose of this study was to analyze a suitable area for sea cucumber (*Holothuria scabra*) cultivation. Data collection had been done by survey method, acquiring primer and secondary data directly related to sea cucumber's life and analyzed by using ArcGIS software. A biological parameter for completing data of West Lombok Waters consisted of sandy mud, rocks, sand and rubble, chlorophyll-a 0.15-0.27 mg.m⁻³, and biomass cucumbers of 1-7 individuals. Land suitability classes were determined by the class interval, namely, S1 (27-33), S2 (20-26) and N (13-19). Based on the results of scoring that has been adapted to the class interval, this project obtained sample points with a very suitable category (S1), namely, A₁, A₂, A₃, B₃, C₁, C₂, C₃. For the corresponding category (S2), there were C₄ and C₅. Finally, unreliable categories have been found in sample points B₁ and B₂.

Keywords: GIS, Land Suitability, Sea Cucumber, West Lombok Waters.

INTRODUCTION

Sea cucumbers are a group of invertebrate animals of the phylum of Echinodermata and class of Holothurioidea [1]. Sea cucumbers include important components in the food chain because of it is a deposit feeder and suspended feeder. Ecologically, sea cucumbers helps the process of decomposition of organic matter present in the sediment and release or produce nutrients into the food chain [2]. The Sea cucumbers include animals in the category of Appendix II of CITES, the population continues to decline every year. One effort to maintain this resource by restocking. Therefore, sustainable management to determine the suitable region is needed. Adequate information is necessary, which can be used for sea cucumber management in a sustainable manner.

Lombok Island is one of the hot spot of marine creature, and many of them is important component of marine-based tourism. The rapid development of tourism has been reported influence the marine creature, including sea cucumber. The proper management of marine creature is one of the important aspects of sustainable and competitive tourism destination [3,4]. In the management aspect of sea cucumber, one method used is Geographic

Information System (GIS). GIS can facilitate in analyzing the data and determining the suitable cultivation area. Given the importance of the sea cucumber's function, good resources management is required. The purpose of this study was to analyze the suitability of cultivated area for Sea Cucumber (*Holothuria scabra*) in West Lombok based on biological parameters.

RESEARCH METHOD

The research location at Gili Asahan, Gili Gede, Gili Layar in Sekotong, Lombok, West Nusa Tenggara. This study was conducted 17th October – 27th November 2016 includes the necessary data collection and sampling were carried out directly on site. The method used in this study is a survey, which is collects data on the condition of the field in the West Lombok and the data were analyzed using geographic information system software.

Tools used are ships, clippers, sample's bottles, stationery, measuring cups, stopwatch, pipe, cameras, rope, board tide, GPS, thermometer, refractometer, pH meter, DO meter, secchi disk and current meter. Materials used are sea cucumbers, tissue, paper labels, alcohol, sample containers.

Research Procedure

Area of research conducted in the area of West Lombok. Western Digital Data of West Lombok Waters base map used to create thematic maps, then interpolation was applied for each parameter. Water conditions that will be

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measured are: substrate, chlorophyll-a and biomass of sea cucumber. Then made a map contours of the primary data for each parameter used as background for the digitization process so that every thematic maps divided by several classes. Furthermore, the condition of the map or the map contours analyzed by the overlay that combines multiple information on the map to generate a new information. Once the criteria is built and analyzed, it will eventually generate suitability maps of sea cucumber cultivation area.

Spatial Analysis and Scoring Matrix Weighting

Analysis of the suitability of sea cucumber cultivation areas carried by several techniques. First, the parameters which determine the suitability of land or very influential included in class S1 or highly customized and are still having a limiting factor. But if the area is still do farming activities included in the S2 class or suitable, and the area which have many limiting factors given in class N. parameters are very good for growing sea cucumbers are given the highest score.

Overlay Analysis

Overlay is combining several map information to generate new information, overlaying a spatial analysis capabilities that can be done effectively in GIS. The results of the spatial analysis is in the form of a map as to the suitability of sea cucumber cultivation area.

RESULT AND DISCUSSION

Parameters of observation in this study is a water-quality based on biological parameters, i.e. biomass of sea cucumber, chlorophyll-a and substrate (Table 1). The parameters are parameters that associated with the growing requirements of sea cucumbers which will be cultivated.

Table 1. Weighting Results and Scores Against Land Suitability Value for Each Parameter

Parameter	Criteria	Rating Scale	Value	Score
chlorophyll-a [5]	3.5 - 10	5	1	5
	0.2 - <3.5	3		3
	<0.2	1		1
Substrate [6]	sandy mud,	5	3	15
	rocks and	3		9
	sand	1		3
	rubble			
Biomass [7]	>3	5	3	15
	1-3	3		9
	0	1		3

Determining the condition of life adapted to the cultivation of cucumbers quality standards. Research carried out directly or through

observation satellite image data which indicates the difference between the value of each sampling point. The point difference between the value adjusted with the quality standards of each parameter. The use of quality standards to facilitate the scoring rate of land suitability. Sampling point coordinates can be seen in Table 2.

Table 2. Sampling Point Coordinates

Location	Station	Coordinates Point		Code
		X	Y	
Gili Asahan	1	377622	9033235	A ₁
	2	376967	9034268	A ₂
	3	376152	9034368	A ₃
Gili Layar	1	377890	9034520	B ₁
	2	379742	9034810	B ₂
	3	379053	9035314	B ₃
Gili Gede	1	378543	9036539	C ₁
	2	379868	9035539	C ₂
	3	381168	9033738	C ₃
	4	381647	9035211	C ₄
	5	381700	9033972	C ₅

Biomass of Sea Cucumber

Observations of sea cucumber biomass or number of individuals of sea cucumbers at the study site obtained from the number of sea cucumbers in the lowest and the highest range as 1 and 7. There are two categories on the suitability of these observations, which are very suitable and suitable. The research areas which have a very suitable categories contained in the sample points A₁, A₂, A₃, C₁, C₂, C₃, C₄, and C₅. While the region has the suitable category contained in the sample points B₁, B₂, and B₃ where the number of sea cucumbers were obtained less than 3 individuals (Fig. 1).

Substrates

Observation of the substrate in the waters of West Lombok obtained sandy mud, sand, rocks, sand and rubble (Fig. 2). There are three categories on the suitability of the substrate observations, such as: very suitable, suitable and not suitable. Very suitable categories contained in the sample points A₁, B₃, C₂ and C₃. Then the suitable category contained in the sample points A₂, A₃, C₁ and C₄. While the category is not suitable there at the point B₁, B₂ and C₅.

Chlorophyll-a

Data obtained from the chlorophyll-a Aqua MODIS satellite data with the value of chlorophyll-a range of 0.15 to 0.27 mg.m⁻³. The distribution of chlorophyll-a show that most of the sub-district has a small value of chlorophyll-a (Fig. 3). There are three categories of classes on

observations of chlorophyll-a, to the suitable class (S2) is in Gili Asahan (A₁, A₂, A₃), Gili Layar (B₁) and Gili Gede (A₁, A₅). For the category is not suitable (N) is in Gili Layar (B₁, B₂) and Gili Gede (C₂, C₃, C₄).

Region Suitability Cultivation

Observations on biological parameter that includes a substrate, biomass and chlorophyll a of sea cucumber in the waters of West Lombok analyzed using Geographic Information System (GIS). It produce thematic maps of aquaculture suitability of sea cucumber (*H. scabra*) based on biological parameters can be seen in Figure 4. Based on chemical parameters,

the interpolation of visible West Lombok subdistrict is shown in green to red. The interpolation pattern shows that there are three categories of land suitability of sea cucumber aquaculture.

Land suitability classes are determined based on the interval between the other classes S1 (27-33), S2 (20-26) and N (13-19). Based on the results of scoring that has been adapted to the class interval obtained sample points with a very suitable category (S1) including A₁, A₂, A₃, B₃, C₁, C₂, C₃. Then for the corresponding category (S2) between C₄, C₅.

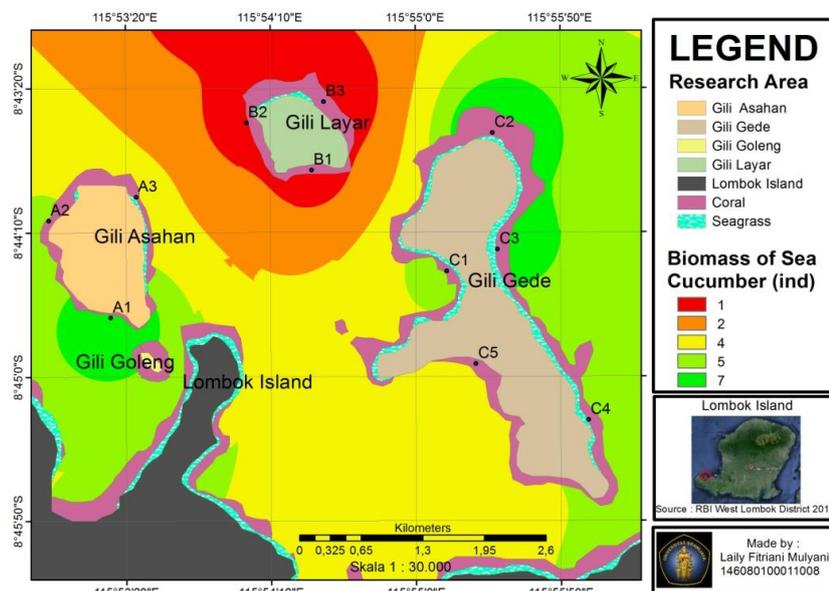


Figure 1. Biomass Distribution of Sea Cucumber in West Lombok Waters

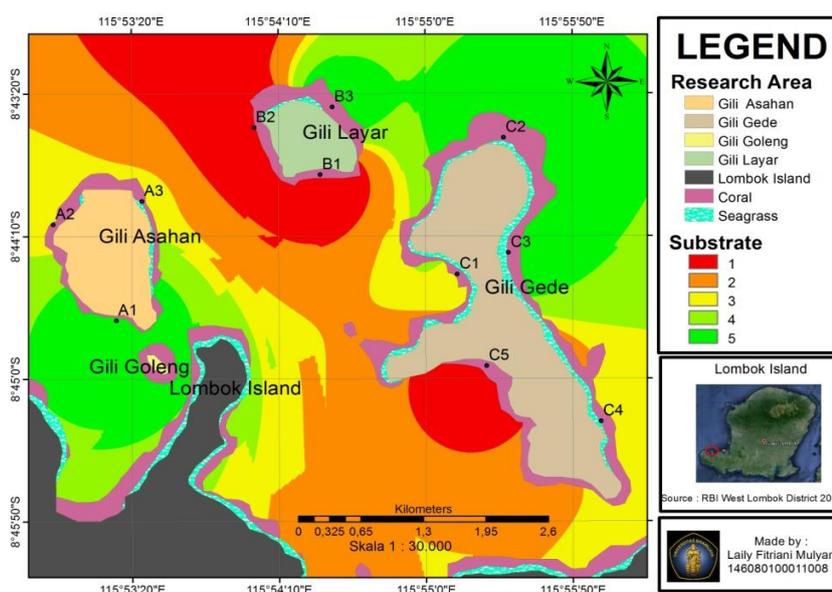


Figure 2. Distribution of Substrate in West Lombok Waters

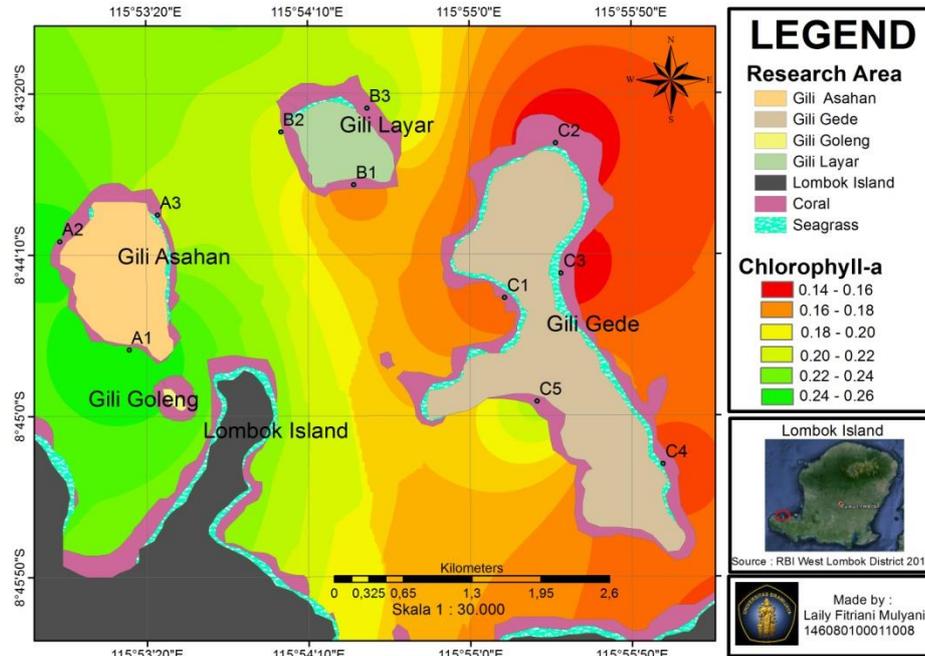


Figure 3. Distribution of chlorophyll-a in West Lombok Waters

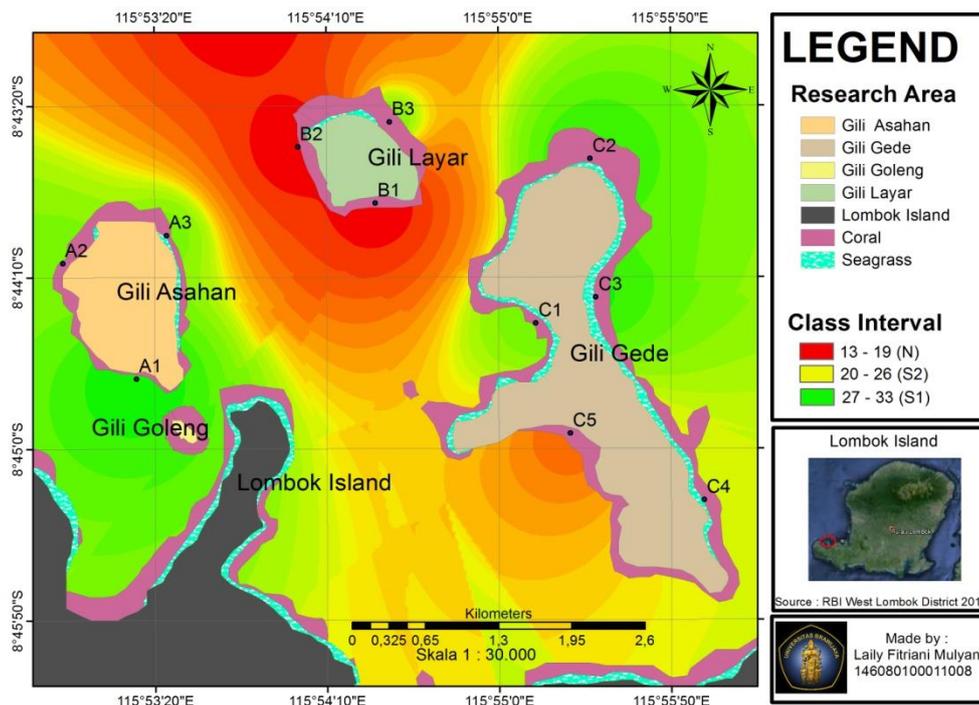


Figure 4. Overlay of Land Suitability Sea cucumbers (*Holothuria scabra*) Based on Biological Parameters.

Meanwhile, according to the category which is not contained sample is in points B₁ and B₂, where the sample point lies in Gili Layar. During the observation, sea cucumbers are found only slightly less than 8 individuals. This is in accordance with the statement of the Wildlife Conservation Society [8], the abundance of sea cucumbers in the waters of Lombok relatively

very low, from 64 point surveys, the presence of sea cucumber found only in 10 point survey of Gili Asahan, Gili Gede, Gili Layar (West Lombok), Gili Lawang West, Gili Sulat east, Sapakoko east, Heaven on the Planet, Gili Maringki (East Lombok), West sire and Soraya Reef (North Lombok). The abundance of sea cucumbers were found less than 50 ind.ha⁻¹.

The least amount of *H. scabra* is because this animal is one type of high economic value of sea cucumbers, which are the main target of the hunt so that the population has been greatly reduced. In addition due to overfishing, the low number of individuals of *H. scabra* likely caused by the habit of immersing itself in the substrate, thus it was not detected during the observation.

Among the factors causing low density of sea cucumbers in a region is due to natural factors, namely support of the environment and way of life, which are solitary [6]. The natural density of sea cucumbers is closely connected with the carrying capacity of the environment. Overall seen that *H. atra* is found in all observation stations and the most dominating than other types of sand sea cucumber [9]. *Holothuria atra* was the most abundant species of sea cucumbers and very wide distribution in most of the Indo-Pacific region [10].

Most parts of Asia, sea cucumber fisheries have been overfished and the population of high-value species such as *H. fuscogilva*, *H. whitmaei*, *H. scabra* and *Thelenota ananas* has been exhausted. The field survey also showed that some high-value sea cucumber species have also been heading for extinction in some areas in Indonesia, Vietnam, and the Philippines [11]. Most of the economic value of sea cucumber stocks have been exploited in excess so that the sea cucumber fishery began to shift toward low-value species of sea cucumber, as a result of increasing demand [12]. The impact of excessive exploitation of sea cucumbers is a decline in natural population stock, the smaller body size, and distribution in the deep [4].

Sea cucumber fishery has expanded rapidly in the tropical waters over the past decades due to high demand from international markets and the ease of capture in nature [13]. Given the slow movement, cause sea cucumber became the target hunts can easily be captured even though without use tool. Sea cucumbers are caught by fishermen by means of a dive by hand [14]. Catching up with the dive way will certainly take a lot of effort and cost compared to arrests made in shallow waters and without diving.

Most people in the West Lombok are fishermen. One was a sea cucumber fisherman catcher. In one fishing, fishermen were able to catch sea cucumbers as much as 3-7 kg per trip. This condition is of course very dangerous for sea cucumber populations given the growing process from seedling stage to maturity running slow so that the stock of sea cucumbers in nature will

slowly run out and can affect the lives of other biota, especially predators of sea cucumbers. Predatory sea cucumbers are invertebrates such as starfish, fish, crab, some gastropod species, birds, and turtles [15]. The predator sea cucumber is a large-sized starfish, crab of species *Dardanus megistos*, species *Atergatis floridus* and snail of species *Tonna perdx* [16].

The main factor reducing the stock of sea cucumbers in Indonesia allegedly was the result of over exploitation and habitat destruction by humans (anthropogenic pressures). The more dense a population and the more advanced region of the pressure posed for marine life, especially species of sea cucumbers are also higher. This led to several regions in Indonesia that conditions have been damaged and polluted waters as a result of this pressure, sea cucumber population declining and increasingly rare. Conversely, the lower the anthropogenic pressures on the water environment, the better the condition of its waters, including the organisms that live in it.

Overall, the parameters of aquatic environment in the form of sandy substrate greatly favored by all kinds of sea cucumbers while dusty and clayey substrate is avoided. The sea cucumber including members of the phylum Echinodermata commonly inhabit the sandy beach [17]. One pattern adaptations made by the inhabitants of aquatic organisms beach with sandy substrate is to immerse himself in the substrate. When the digging substrate biota, organic fine particles other than grains of sand will be digested in the body. The reason cucumbers avoid muddy substrate only because the substrate is a possibility of environmental anoxic or without oxygen [18]. Sea cucumbers may have difficulty in actuating the muddy substrate [19]. Sea cucumbers tend to concentrate in areas with high levels of organic matter [20]. *Holothuria sanctori* have food selectivity against sediment with high concentrations of organic matter. Consumption of organic material will increase with the increased availability of organic material [21].

CONCLUSION

The conclusion based on the results of research in the District West Lombok is the level of land suitability for cultivation Cucumber Sand in District West Lombok to the category of very suitable (S1) including A₁, A₂, A₃, B₃, C₁, C₂, C₃ with a range of scoring (27-33), for the corresponding category (S2) include C₄ and C₅ with the range of

values scoring (20-26) and the category of not suitable (N) between B₁ and B₂ with a range of values scoring (13-19). This research is a research stage plan for determining the location of the sand sea cucumber cultivation. It is need for further studies to determine the extent of the carrying capacity of the region to produce sand sea cucumbers.

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Plants Diversity for Ethnic Food and the Potentiality of Ethno-culinary Tourism Development in Kemiren Village, Banyuwangi, Indonesia

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Abstract

Recent rapid grow of culinary tourism has significant potential contribution to enhancing biodiversity conservation especially biodiversity of local plant species for local food and food preparation tradition in local community. Ethnic food has been explored as one of the indigenous resources for community-based tourism, in which it is important in community development and biodiversity conservation. The aim of the study was to describe the involvement of plant in local cuisine and the concept of ethno-culinary tourism products development. The research was based on ethno-botanical study through observation and interviews with local community and tourism stakeholder in Kemiren Village, Banyuwangi. This study found that there was 108 ethnic food menu in Kemiren Village. There are 67 species of 35 plant family were used in local cuisine. Kemiren Village has been identified rich in term of traditional culinary which are able to be developed as attractive cuisine in culinary tourism.

Keywords: culinary tourism, ethnic food, Kemiren Village.

INTRODUCTION

Special interest tourism recently grows significantly, and many developing countries with abundance nature and culture are the favorite destination for special interest tourism. Special interest tourism has been identified important to provides jobs, increase nation income from export, spread of business development and infrastructure [1,2].

Culinary tourism is the important sub-segment of special tourism in Indonesia. The richness of culture and food preparation in Indonesia are the potential sources for future tourism development, especially in culinary tourism sector. Besides its economic prospect, the development of local culinary tourism is importance to ensure the existence of local biodiversity as a materials for local cuisine. Presenting and promoting local culinary therefore important and relevant with the recent biodiversity conservation [3,4].

Osingnese in Kemiren Village, Banyuwangi, is one of the indigenous community in East Java (Indonesia) with its long preserved tradition and culture, including community habits in food preparation and food culture. For the development of tourism in Banyuwangi Regency, the unique and richness of traditional food in Kemiren Village can become basic research for

culinary tourism. The development of culinary tourism sector in Banyuwangi relevant with the recent trend of tourism development in Banyuwangi Regency. Recently, Banyuwangi Regency has been identified as one of the fastest rapid growing area in tourism sector [5,6].

As far, there is few studies regarding the plant species diversity as a component for local cuisine. This aspect becomes limitation aspect for further culinary tourism development, including conservation programs of plant which are an important in local cuisine [7]. There are also limitation program for tourism product development related to the local cuisine. It is especially important for many developing countries with rich in term of biodiversity and cuisine to develop more competitive culinary tourism based on local culture richness [8]. This study aims to describe the diversity of plants which involved on the traditional food menu and the concept of tourist products for culinary tourism.

RESEARCH METHOD

Study area

Kemiren Village located at Glagah Sub-regency, Banyuwangi Regency. Geographically, coordinate point of Kemiren Village is 8°12'12.7"S 114°19'14.6"E, an area 2.50 km², with an altitude of 75 - 460 m above sea level (Fig. 1). Socio-anthropologically, Kemiren is home of the Osingnese, the native people in Banyuwangi Regency. The majority of local community is farmer, with rice is the main commodity.

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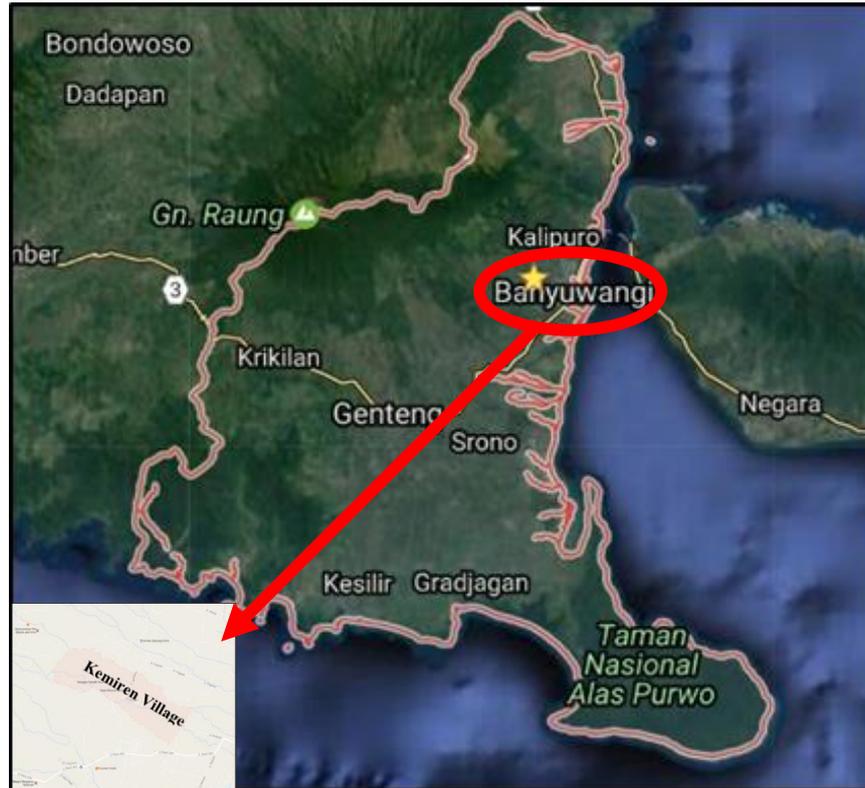


Figure 1. Study Site in Kemiren Village, Banyuwangi. Source: Google Maps, 2016

Methods

The data of plants/herbs which involved in ethnicfood menu in Kemiren obtained through observation, informal and semi structural interviews. Prior to the field survey, an intensive communication with village leaders and document study related to the villages history, social-cultural life were done systematically with the objectives generated information regarding focus of the study. Informants were chosen using purposive sampling technique and snowball methods. The local and traditional menu was listed and plant composition to make cuisine were recorded. The concept of tourists products especially culinary obtained by Focus Group Discussion with informant key from Kemiren village leader, local persons who are often invited as public chef cooking in village, and expert from *East Java Ecotourism Forum* community. Data as analyzed descriptively. The ethnobotany values of The Family Use Values (FUVs) was calculated using following formula :

$$FUV = \frac{\sum FU_i}{n}$$

Description:

- U_i = Amount of plant function that mentioned by respondents for each family
- n = Amounts of respondents

RESULT AND DISCUSSION

The Ethnicfood of Kemiren

There are about local 108 menus was stated by informant, indicated the community in Kemiren Village has numerous menu to consume in daily life. About 95 menus were reported native to Kemiren Village (Table 1). Informant argues that such menu has been consumed for a long time in the history of Osingnese in Kemiren Village .Informant report that some menu is the special menu among community member, including *pecel pitik* (Fig.2). This menu often made and presented in events and cultural activities. Many menu should be made and presented in cultural events of the villages.



Figure 2. Pecel Pitik

Table 1. Ethnic food Plant Species

No.	Common Name	Kemiren Local Name	Latin Name	Family	Category	Part Used	Distribution Range
1	Tamarind	Asem	<i>Tamarindus indica</i> L.	Fabaceae	S	Fruit	N : Africa, Asia Temperate NTV : Africa, Asia-Temperate, Europe NTR : Africa, Northern America
2	Chive	Bawang pre	<i>Allium ampeloprasum</i> L.	Amaryllidaceae	S	Leaf, Pseudo stems	CTV : Africa, Asia-Temperate, Asia-Tropical, Australasia, Europe, Northern America, Southern America
3	Red onion	Bawang abang	<i>Allium cepa</i> L.	Amaryllidaceae	T	Bulbus	CTV : Africa, Asia-Temperate, Asia-Tropical, Australasia, Europe, Northern America, Southern America
4	Garlic	Bawang putih	<i>Allium sativum</i> L.	Amaryllidaceae	T	Bulbus	CTV : Africa, Asia-Temperate, Asia-Tropical, Australasia, Europe, Northern America, Southern America
5	Spinach	Bayem	<i>Amaranthus hybridus</i> L.	Amaranthaceae	V	Leaf	NTV : Northern America, Southern America NTR & CTV : tropic, subtropic warm-temperate region
6	Starfruit	Blimbing wuluh	<i>Averrhoa bilimbi</i> L.	Oxalidaceae	F	Fruit	CTV : tropic region
7	Green bean	Buncis	<i>Phaseolus vulgaris</i> L.	Fabaceae	V	Fruit, Seed	NTV : Northern America, Southern America
8	Angled Luffa	Wuku Langkir	<i>Luffa acutangula</i> L. Roxb.	Cucurbitaceae	V	Fruit	NTV : Asia-Tropical; CTV : tropic region
9	Kedawung	Gedawung	<i>Parkia timoriana</i> DC.Merr.	Fabaceae	S	Seed	NTV : Asia-Tropical region
10	Yellow velvetleaf	Genjer	<i>Limncharis flava</i> L. Buchenau	Alismataceae	WP	Leaf	NTV : Northern America, Southern America
11	Gunda	Gundok	<i>Sphenoclea zeylanica</i> Gaertner	Sphenocleaceae	WP	Leaf	NTV : South and Southeast Asia
12	Orch ginger	Kecombrang/Lucu	<i>Etlingera elatior</i> Jack R. M. Sm.	Zingiberaceae	S	Pseudo stems	NTR : tropic regions
13	Corn	Jagung	<i>Zea mays</i> L.	Poaceae	F	Seed	NTV : Northern and Southern America
14	Ginger	Jahe	<i>Zingiber officinale</i> Roscoe	Zingiberaceae	S	Rhizome	CTV : tropic regions
15	Jamur lot			Pleurotaceae	WP	Basidiokarp	NTR : tropic regions
16	Jamur manuk (besar)			Physalacriaceae	WP	Basidiokarp	NTR : tropic regions
17	Jamur menur (kecil)			Physalacriaceae	WP	Basidiokarp	NTR : tropic regions
18	Jamur ulan			Tricholomataceae	WP	Basidiokarp	NTR : tropic regions
19	Lemon	Jeruk peceh	<i>Citrus aurantifolia</i> Christm.Swingle	Rutaceae	F	Fruit	NTR : Asia-Temperate CTV : tropic and sub-tropic region NTV : Asia-Temperate and Asia-Tropical CTV : Asia-Temperate region
20	Lime	Jeruk purut	<i>Citrus hystrix</i> DC.	Rutaceae	F	Leaf	NTV : Asia CTV : Asia-Temperate region
21	Lemon	Jeruk sambel	<i>Triphasia trifolia</i> Burm.F.P.Wilson	Rutaceae	F	Fruit	NTV : North america; CTV : tropic region
22	Caraway/Cumin	Jinten	<i>Cuminum cyminum</i> L.	Apiaceae	S	Fruit	NTV : Africa
23	Yardlong bean	Kacang dhowo	<i>Vigna unguiculata</i> L.	Fabaceae	V	Fruit, Seed	CTV : Africa, Asia-Temperate, Asia-Tropical Australasia, Europe, Northern America, Pacific and Southern America
24	Peanuts	Kacang chino	<i>Arachis hypogaea</i> L.	Fabaceae	V	Seed	NTV : Africa, Asia-Temperate, Asia-Tropical Australasia, NTR : Northern America, Pacific Southern America; CTV : tropic region NTV : Asia-Temperate and Asia-Tropical
25	Water Spinach	Kangkung	<i>Ipomoea aquatica</i> Forssk.	Convolvulaceae	V	Leaf	NTV : Asia-Temperate and Asia-Tropical
26	Katu	Katu	<i>Sauropus androgynus</i> L. Merr.	Phyllanthaceae	WP	Leaf	NTV : Asia-Temperate and Asia-Tropical
27	Cinnamon	Kayu manis	<i>Cinnamomum burmanni</i> Nees & T. Nees Nees	Lauraceae	S	Bark	NTR : Pasific region NTV : Africa and Asia-Tropical
28	Green bean	Kacang ijo	<i>Vigna radiata</i> L. R. Wilczek	Fabaceae	V	Leaf, shoot	NTR : Asia-Temperate and Australasia CTV : paleotropical region
29	Coconut	Klopo	<i>Cocos nucifera</i> L.	Arecaceae	F	Fruit	NTV : Africa, Asia-Tropical and Pasific NTR : Africa, Asia-Tropical and Pasific
30	Moringa	Kelor	<i>Moringa oleifera</i> Lam.	Moringaceae	WP	Leaf	NTV : Asia-Tropical
31	Basil	Kemangi	<i>Ocimum tenuiflorum</i> L.	Lamiaceae	WP	Leaf	NTV : Asia-Tropical; NTR : tropic region
32	Hazelnut	Kemiri	<i>Aleurites moluccanus</i> L. Willd.	Euphorbiaceae	S	Fruit	NTV : Asia-Temperate, Asia-Tropical, Australasia NTR & CTV : tropic region
33	Sand ginger	Kencur	<i>Kaempferia galanga</i> L.	Zingiberaceae	S	Rhizome	NTV : Asia-Tropical

Description :
V : Vegetables
S : Spices
F : Fruits
WP : Wild Plants
T : Tubers
NTV : Native
CTV : Cultivated
NTR : Naturalized

(GBIF, 2017; Grin Global, 2017; Plantamor, 2017)

Plants and Herbs in Ethnic food

The involvement plants on each menu will give it original taste which can be used as typical sense of each ethnic food menu aside from its beneficial to health. The plants that involved in menus (Table 1) divided into 5 types such as vegetables, spices, fruits, wild plants and tubers. Each menu consist of different plants composition. Some notable species was described below. The distribution list can be seen (Table 1).

Spice and herbs is an important material for many cuisine in the world. It tropical countries, it is often rich in term of spice an herb [9,10]. The cuisine of Osingnese in Kemiren Village basically rich in term of spice and herbs. This produce the

unique and specific menu which are important in culinary tourism development.

Based on the *FUVs* (*Family Use Values*) calculation, five families with the highest *FUVs* values (Fig. 3) among others Solanaceae, Amaryllidaceae, Zingiberaceae, Fabaceae, dan Euphorbiaceae. The first highest family with the highest *FUVs* value is Solanaceae family. Species that role in contributing to the highest value is *Capsicum frutescens* (chili pepper) (Fig. 4). The Kemiren community called it *lobok cilik*. Chili pepper contains fat, protein, carbohydrate, calcium, phosphorus, iron, vitamin A, B1, B2, C and alkaloid compounds [11]. This plantis used as a mixture of cuisine and treatment ingredients [12].

Table 1. Ethnicfood Plant Species (continue)

No.	Kemiren Local Name	Latin Name	Family	Category	Part Used	Distribution Range	
34	Kenikir	Senikir	<i>Cosmos caudatus</i> Kunth	Asteraceae	WP	Leaf	NTV : Northern and Southern America NTR : Africa, Asia-Tropical, Australasia, Northern America, Pacific, Southern America CTV : Asia-Tropical region
35	Potato	Kentang jembut	<i>Solanum tuberosum</i> L.	Solanaceae	T	Tuber cauligenum	CTV : Africa, Asia-Tropical, Northern America Southern America
36	Coriander	Ketumbar	<i>Coriandrum sativum</i> L.	Apiaceae	S	Fruit	CTV : Africa, Asia-Tropical, Europe, Northern America, Southern America
37	Kepayang	Kluwek	<i>Pangium edule</i> Reinw.	Achariaceae	S	Fruit	NTV : Asia-Tropical dan Pasific
38	Cabbage	Kubis	<i>Brassica oleracea</i> L.	Brassicaceae	V	Leaf	NTV : Europe
39	Turmeric	Kunir	<i>Curcuma longa</i> L.	Zingiberaceae	S	Rhizome	NTV : Asia-Tropical; CTV : tropic region
40	Chayote	Manisa	<i>Sechium edule</i> Jacq. Sw.	Cucurbitaceae	V	Fruit	NTV : Central America
41	Galangal	Laos	<i>Alpinia galanga</i> L. Willd.	Zingiberaceae	S	Rhizome	NTV : Asia-Temperate and Asia-Tropical CTV : Asia-Temperate, Asia-Tropical, Southern America
42	Cayenne pepper	Labok gedhe	<i>Capsicum annum</i> L.	Solanaceae	F	Fruit	NTV : Northern and Southern America
43	Chili pepper/Bird's Eye	Labok cilik	<i>Capsicum frutescens</i> L.	Solanaceae	F	Fruit	NTV : Northern and Southern America CTV : Africa, Asia-Tropical and Pasific
44	Paddy oats	Bagu	<i>Gnetum gnemon</i> L.	Gnetaceae	WP	Leaf	NTV : Asia-Temperate and Asia-Tropical, Pacific NTR & CTV : Asia-Tropical
45	Cucumber	Timun	<i>Cucumis sativus</i> L.	Cucurbitaceae	F	Fruit	NTV : North america; CTV : tropic region
46	Tomato marmade	Ranti	<i>Solanum lycopersicum</i> L.	Solanaceae	F	Fruit	CTV : tropic region
47	Pepper	Mrico	<i>Piper nigrum</i> L.	Piperaceae	S	Fruit	NTV : Asia-Tropical; CTV : tropic region
48	Jackfruit	Tewel	<i>Artocarpus heterophyllus</i> Lam.	Moraceae	F	Fruit	CTV : Southeast Asia, India
49	Rice	Pari	<i>Oryza sativa</i> L.	Poaceae	F	Seed	CTV : tropic, subtropic, & warm-temperate regions
50	Fern	Pakis	<i>Diplazium esculentum</i> Retz. Sw.	Athyriaceae	WP	Leaf	NTV : Asia-Temperate and Asia-Tropical
51	Nutmeg	Polo	<i>Myristica fragrans</i> Houtt.	Myristicaceae	S	Seed	CTV : Asia-Tropical and Southern America
52	Pandanus	Pandan	<i>Pandanus amaryllifolius</i> Roxb.	Pandanaceae	WP	Leaf	CTV : Asia-Tropical
53	Papaya	Kates	<i>Carica papaya</i> L.	Caricaceae	F	Leaf	NTV : Northern and Southern America
54	Stink bean	Pete	<i>Parkia speciosa</i> Hassk.	Fabaceae	F	Seed	NTR : Africa, Northern and Southern America CTV : Asia-Tropical, Australasia and Pasific NTR : Asia-Tropical
55	Banana klutuk	Gedang klutuk	<i>Musa balbisiana</i> Colla	Musaceae	F	Fruit	NTV : Asia-Temperate and Asia-Tropical CTV : Asia-Tropical
56	Bamboo shoot ampel	Bung Ampel	<i>Bambusa vulgaris</i> Schrad. ex J. C. Wendl.	Poaceae	WP	Shoot	NTV : Asia-Temperate; NTR : Northern America, Southern America; CTV : Africa, Asia-Temperate, Asia-Tropical, Northern & Southern America
57	Bay	Manting	<i>Syzygium polyanthum</i> Wight. Walp.	Myrtaceae	S	Leaf	NTR : Asia-Tropical NTV : Africa, Asia-Temperate,
58	Lettuce	Selada	<i>Nasturtium officinale</i> W. T. Aiton	Brassicaceae	V	Leaf	Asia-Tropical&Europe; NTR : Africa, Asia-Temperate, Asia-Tropical, Australasia, Northern, Southern America
59	Celery/Coriander powder Seledri		<i>Apium graveolens</i> L.	Apiaceae	V	Leaf	NTV : Africa, Asia-Temperate, Europe CTV : Africa, Asia-Temperate, Asia-Tropical, Australasia, Europe, Northern & Southern America
60	Clover	Semanggi	<i>Marsilea crenata</i> C. Presl	Marsileaceae	WP	Leaf	NTR : Asia-Temperate, Asia-Tropical and Australasia
61	Lemongrass	Sere	<i>Cymbopogon nardus</i> L. Rendle	Poaceae	S	Pseudo stems	NTV : Africa and Asia-Tropical CTV : Asia-Temperate and Asia-Tropical
62	Cassava	Sawi	<i>Manihot esculenta</i> Crantz	Euphorbiaceae	T	Tuber rhizogenum	NTV : Southern America; CTV : tropic region
63	Eggplant	Terong	<i>Solanum melongena</i> L.	Solanaceae	V	Fruit	CTV : Asia
64	Tomato	Tomat	<i>Solanum lycopersicum</i> L.	Solanaceae	F	Fruit	CTV : various region
65	Agathi	Turi	<i>Sesbania grandiflora</i> L. Poir.	Fabaceae	WP	Flower	CTV : tropic region
66	Sweet potato	Sabrang	<i>Ipomoea batatas</i> L. Lam	Convolvulaceae	T	Tuber rhizogenum	NTV : Northern America; NTR : tropic region
67	Carrot	Wortel	<i>Daucus carota</i> L.	Apiaceae	T	Tuber rhizogenum	NTV : Africa, Asia-Temperate, Asia-Tropical, Europe NTR : Asia-Temperate region (GBIF, 2017; Grin Global, 2017; Plantamor, 2017)

Description :
V : Vegetables
S : Spices
F : Fruits
WP : Wild Plants
T : Tubers

NTV : Native
CTV : Cultivated
NTR : Naturalized

The next species are *C. annum*(cayenne pepper), *S. lycopersicum* (tomato marmade), *S. melongena* (eggplant), *S. lycopersicum* (tomato), which is the fruit of the plant used as a food ingredient. The last species is *S. tuberosum*. Cayenne pepper contains capsaicin, vitamin C, beta-carotene, calcium, and phosphorus, and useful for relieving flu and nasal congestion [13]. The second family with the highest score of FUVs is Amaryllidaceae family. Species that role in contributing to the highest value is *A. sativum* (garlic). The species is utilized tuber by Kemiren Village community. Garlic contains 33 sulfur compounds, 17 amino acids, enzymes, minerals for example selenium [14]. Sulfur compounds cause a pungent smell of garlic and contain many effects when used as a medicine [15]. Allicin compounds in garlic (chopped and exposed to room temperature) have antimicrobial effects to

combat viral, bacterial, fungal and parasitic attacks [16].

The next species is *A. cepa* (red onion), which is also used as a plant spice crop, and *A. ampeloprasum* (chive) (Fig. 5) by utilizing leaves. Red onion is a drug that can be cherished civilization, because it has a very strong antioxidant content, fructans, flavonoids and organosulfur compounds, which is beneficial to human health as anti-carcinogenic, inflammatory, antiseptic, antispasmodic, carminative, diuretic, expectorant, febrifuge, hypoglycemic, cholesterol, and anti biotic [17]. Chive is a plant that is consumed daily which is used as a complement to cooking, and has efficacy as a traditional medicine to treat inflammation and digestive problems [18]. This plant in the ethnobotany world acts as an antihelmintic, diuretic, antihypertensive and digestive [19,20].

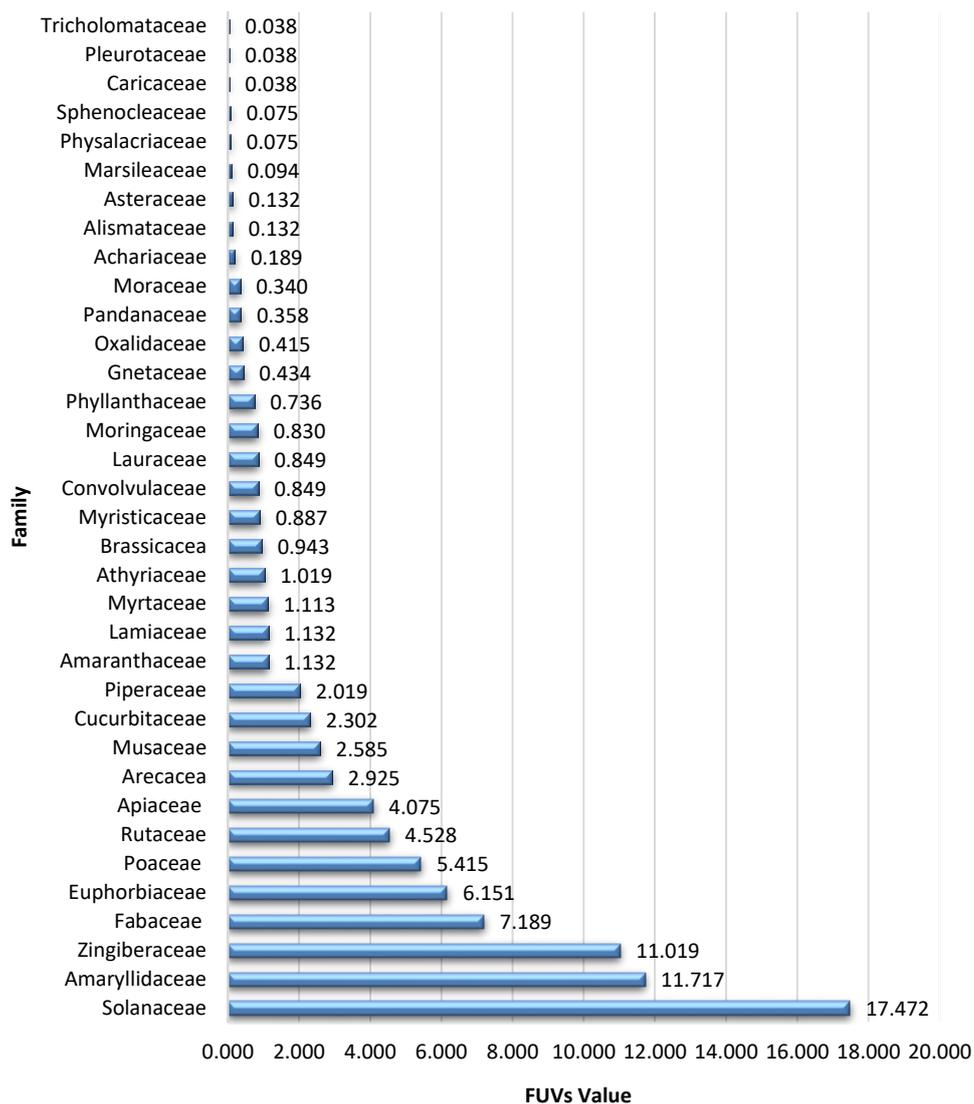


Figure 3. The Family Use Values of Plant Resources which are Used in Traditional Menu



Figure 4. *Capsicum frutescens* L

The third highest family with the highest FUVs value is Zingiberaceae family. Species that role in contributing to the highest value is *A. galanga* (galangal), which the part used is rhizome. This plant contains essential oils and methanol fractions, which act as inhibition of microbial

growth (anti microbial and fungi), so it can be used as a skin rub [21,22]. The next species is *C. longa* (turmeric), *Z. officinale* (ginger), *E. elatior* (orch ginger or wax flower) (Fig. 6), by utilizing the rhizome. The last species is *K. galanga* (sand ginger), by utilizing the rhizome. Turmeric contains antioxidant compounds that protect from the effects of free radicals, but it also serves as an anti-inflammatory, digestive, antibacterial, antimuta-genic, antifungi, antitertogenic, anti-tumor, anti carcinogenic and various diseases that attack humans [23]. In the history of drug use in China, ginger plays a role as antiemetic, antipyretic, and anti-inflammatory [24]. Orch ginger or wax flower is a natural insecticide and used as a mixture of *pecel* or *lalapan* cuisine. Stems, leaves, and rhizomes have chemical content of saponins, flavonoids, polyphenols and

essential oils [25]. Sand ginger contains essential oils and ethyl p-methoxycinnamate, which serves to treat cough, stomachache and trigger the release of sweat [26, 27].



Figure 5. *A. ampeloprasum* L.



Figure 6. *E. elatior* (Jack)
R. M. Sm.



Figure 7. Seed of *A. moluccanus* L.

The fourth highest family with the highest FUVs value is Fabaceae family. Species that role in contributing to the highest value is *A. hypogaea* (peanuts), the part used is seed. And then *V. unguiculata* (yard long bean), which part used is fruit and leaves. The next species is *P. vulgaris* (green bean), *P. timoriana* (kedawung) by utilizing the seeds, *T. indica* (tamarind) by utilizing the fruit, *V. radiata* (green bean) by utilizing the seed sprouts, *S. grandiflora* (agathi) by utilizing the interest portion and *P. speciosa* (stink bean) by utilizing the seeds. Peanuts are protein-rich, cholesterol-free, contain high levels of natural fiber, vitamins, and essential minerals, boost immunity, prevent cancer and heart attacks, reduce weight [28].

Vigna unguiculata (yard long bean) contains 10 g of water; 22 g protein; 1.4 g of fat; 51 g of carbohydrate; 3.7 g vitamins; 3.7 g carbon; 104 mg of calcium and other nutrients. The resulting energy is about 1420 kJ per 100 g at a measurement of 100g [29]. Yard long bean contain anthocyanin and glycine flavonoids [30]. Green bean play a role as antidiabetic, which can control the occurrence of hyperglycemic type 2

diabetes mellitus [31]. Leather stems, leaves, flowers and pods of this plant are used as traditional medicine or foodstuffs [32]. This plant has phytosterol content, which is dominated by beta-sitosterol [33]. Kedawung seeds are used to treat colic, a mixture of cholera drugs, seizures during menstruation, booster [34].

Tamarindus indica (tamarind) has a sour, sweet, cold taste, so many of these plant parts are used as traditional remedies to treat illness suffered by humans. Tamarind leaves are used to cure cough, jaundice, worm infections, ulcers, ulcers, and insomnia. The flower of this plant is used to treat bloody cough, rheumatism, edema, and external wounds. Fruit is used to cure constipation, dysentery, loss of appetite, vomiting, asthma, and inflammation of the breast. Seeds are used for snake bites, boils, and hair loss [34-37]. In Indonesia, *asem* used for traditional medicine will vary by region [38]. Green bean are beneficial for growth and cultivation because they contain carbohydrates, vitamin A, vitamin B, and minerals [39].

The fifth highest family with the highest FUVs value is Euphorbiaceae family. Species that role in contributing to the highest value is *A. moluccanus* (hazelnut) (Fig. 7), by utilizing the seeds. The next species is *M. esculenta* (cassava), which part used is tuber. Hazelnut seeds that have been extracted to produce oil, contain irritant substances functioning as laxative, soap replacement and hair care, and the remaining seeds can be used as fertilizer [40].

Culinary Tourism Product Development

Principally, culinary tourism is the tourism segment in which tourist searching and enjoying unique culinary in order to remember various types of menus throughout the journey [1,41]. Tourists tend to search for new things on the destination place, including culinary experience. From the discussion forum which are conducted to generate community and local tourist expertise in culinary development, the concept of tourism products that can be offered to Kemiren Village include:

1. Promoting an offering Osingnese culinary in every event in Banyuwangi Regency, and promotes the Osingnese culinary to the national and international tourist.
2. Developing proper processing and packaging which area able to ensure the quality and durability of cuisine as souvenir.

3. Developing coking class or other food making and preparation demonstration as part of the tourism program in Kemiren Village. It will be more interesting with expert assistance of Kemiren chef during process and accompanied by a guide who explain about relationship between local indigenous and Kemiren ethnicfood. This activity is special for tourists who want to know the making process of ethnicfood menus.

In order to enhance the role of culinary tourism in Kemiren, some aspect were recommended, including:

1. Training guide skill for youth or Kemiren community in order to provide assistance to tourists (explaining the unique of Kemiren local wisdom that can not be separated from the dish of ethnicfood menus)
2. Kemiren communities who are involved in the welcoming activities of foreign or local tourists better to always use traditional clothes of Kemiren.
3. Conducting tour promo through social media, print and electronic.
4. Kemiren Culinary can take a part in Culinary Festival Indonesia event.

CONCLUSION

Osingnese community in Kemiren Village has 108 traditional menus which area consume in daily life and presented in particular cultural event. The number of plan species which are used in local cuisine included 67 plant species from 35 families. The concept of tourism products should be developed on mechanism of tourist services by providing guides and culinary facilities based on local wisdom of Kemiren.

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The Role of Women in Lok Baintan Floating Market, South Kalimantan: Implication for Tourism Development

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Abstract

Lok Baintan Floating Market is the tourism destination in South Kalimantan. Trading activity in Lok Baintan become the tourism attraction, which traders in the Floating Market are women using the small boat (*jukung*). The objective of research is to analyze the role of women in Lok Baintan Floating Market. The study uses fieldwork and qualitative approach. Research data is obtained through interviews with traders in the Floating Market. The research shows that women have the important role in floating market. The role of women is to prepare the merchandise the day before selling until then they sell in the floating market in next day. Merchandise is sold by women in the floating market such as agricultural products, fishery products, handicrafts, traditional cuisine, and traditional cakes. Women get both agricultural product and fishery product from their own land or from other traders. Women make their own craft and then sold in the floating market. Women make both traditional dishes and traditional cake and then sold in the floating market. The presence of women in Lok Baintan has improved the local socio-economics of community. In the perspective of tourism development in floating market, there is still need women community empowerment.

Keywords: floating market, tourism destination, women role.

INTRODUCTION

Lok Baintan Floating Market is one of tourism destination in South Kalimantan. The trading activity using small boat or *jukung* becomes the attractiveness in Lok Baintan Floating Market [1-3]. Lok Baintan floating market related to the human culture in South Kalimantan as the river culture. Many people in South Kalimantan live along the river. River forms the culture of community in South Kalimantan [3].

One of the attractiveness in Lok Baintan is the domination of women traders. Women have ability to paddle her *jukung* while offering their wares. The women activity becomes tourism attractiveness in Lok Baintan Floating Market [1]. Women sell their merchandise from sunrise to about 8 am [4].

Floating markets have provided jobs for women. Women trade the local product which is harvested from gardens in Lok Baintan Floating Market. The activity of women in Lok Baintan Floating Market is important to increase income

for their family through trading activity. Lok Baintan Floating Market is also decreased the unemployed in this villages. The women use their income for their children and household necessities [5].

Women have important roles for socio-economics increase in the community. Women can become a development agent due to the important role in both formal and informal economic sector through creativity and innovation [5]. Women in Lok Baintan Floating Market work in the informal sector. Women in Lok Baintan work only half the time in the morning, hence they has the time for their family. Women have the opportunity to work in informal sector than man [6].

Women have the important roles for tourism development. Tourism gives the opportunity to empower women by economic empowerment, educational empowerment, and political empowerment [7]. Tourism provides the benefits for local community, including women. In the context of community development, tourism is a crucial role for local development. It is especially important in developing countries with abundance natural and cultural resources [8]. The condition of women in tourism are still underpaid, under-utilized, under-educated, and

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underrepresented; but tourism gets the opportunity to success [9]. The condition of tourism in Lok Baintan that determines the success of tourism activity in Lok Baintan depends on the women. Based on the background, the objective of research is to analyze the role of women in Lok Baintan Floating Market for tourism development implication.

RESEARCH METHOD

Study Area and Data Collection

Floating market is located in 3°17'21.1" S and 114°40'11.1" E. Lok Baintan Floating Market location is in Banjar Regency, South Kalimantan [10]. Lok Baintan location is presented in Figure 1. The study used fieldwork and qualitative approach. The target population were woman traders in Lok Baintan Floating Market, consist of handicraft traders, agricultural product traders, fish traders, and culinary traders [10]. Data collection was obtained through observation and depth interview. Observation was used to get the general condition about the women activity in Lok Baintan Floating Market. Depth interview was used to get the information about role of women during the trading activity in Lok Baintan Floating Market. Triangulation was used to test the validity of data [11].

Data Analysis

Data analysis consisted of data grouping, data reduction, data display, and conclusion drawing

[11]. Grouping of data was based on the type of commodities sold in the floating market. Data reduction was used to get the tentative conclusion based on the similarities and differences of women role in Lok Baintan Floating Market. Data display present data of women activity in Lok Baintan in form of matrix. Data display was used to make it easier to determine advanced conclusions. Conclusion drawing was used to get the final conclusion and to get the relation between categories.

RESULT AND DISCUSSION

Women prepare merchandise before it is sold on a floating market. Women prepare their merchandise one day before market day. Merchandise consists of handicraft, agriculture product, fishery product, culinary product.

Handicraft product

Women get their merchandise from other craftsmen or from their own craft. A total of 10 merchants sell handicrafts from other craftsmen. The role of the merchant is to collect handicrafts from craftsmen for resale in the floating market. Women also sell their own handicraft. The role of women is as the craftsmen and traders. The craft is made traditionally and hereditary. The handicraft from Lok Baintan consists of *purun* hats and basket. The material used is derived from *purun* plant and palm tree. Lack of capital and production costs causes the limited of handicraft.



Figure 1. Lok Baintan Floating Market Location. Source: Google Earth

Agriculture Product

Agriculture products in Lok Baintan Floating Market consist of oranges, grapefruit, pineapple, banana and vegetables. Traders get the agricultural product from the other farmers and their own farm. Many crops often planted and cultivated in traditional home garden. In tropical countries, the home gardens often play an important role in households economic earning [12].

Women collect agriculture product from agricultural land around the floating market. They also collect from other traders in other traditional markets. The agricultural products are resold in the floating market. The role of women in this process is to collect agricultural products to resale in the Floating Market in next morning. They get income from the price difference between the price at the merchant or at other farmers and the price in the floating market.

Women in the Floating Market also act as traders and farmers. They get the crops from their own farmland (Fig. 2) in the afternoon and then resold them in the floating market the next morning (Fig. 3). The main farm is managed by men. Women help their husbands to manage farmland. The woman's job is to harvest the crops for later selling at the floating market.



Figure 2. The Farmland in Lok Baintan Village

Fishery Product

Women in the Floating Market get fish in ponds or in rivers around Lok Baintan Village. They also get fish from other merchants such as salted *sepat* fish.

The role of women is to collect fish from ponds (Fig. 4), rivers or other fish traders. Men have the role for ponds managing or fish catching in rivers. Women have a role to help men to sell the fish in the floating market. Usually fish are

collected the day before they sell in the floating market.



Figure 3. Women Trades Agriculture Product Using *jukung*



Figure 4. Fish Pond in Lok Baintan Village

Traditional Cuisine

Women sell traditional cakes and traditional food by *jukung* (Fig. 5). Cuisine are made by traders or bought from traders in other traditional markets. Women have the role as the traders and food maker.



Figure 5. Traditional Cakes on Lok Baintan Floating Market

Women have a very important role for trading activities in the floating market. Their role is from preparing merchandise until to sell in a floating market. Women existence has been the driving force for local economy in this village. Women have increased the tourism activity in Lok Baintan Floating Market.

In the recent rapid development of culinary tourism, the local cuisine should be able promotes and attract tourist. In such a case, an intensive study about resources and local culture to enhance the value of local cuisine is important. Traditional social and culture have the relation to the traditional cuisine [13]. The cuisine The Banjarese traditional cuisine need to be explored and studied for future culinary tourism development.

Lok Baintan Floating Market is a place for community gathering. They can meet and discuss about their daily lives. Women can exchange information, such as birth of a child or grandchild, marriage, social gathering, merchant information, and others. Socially, the floating market can improve the social life quality of community. Women gets the social benefit from tourism entrepreneurship that have the implication for tourism development [14].

The cultural and belief has an impact for women participation in labor force participation [15]. Women and men in Lok Baintan Floating Market have divided their roles in economic and social life. Men work on farmland, which the agricultural produce is sold by women in the floating market. When women sell in a floating market, their husbands are willing to help for finishing the house chores. Tourism sector has provided opportunities for both women and men to get better jobs [16].

The division of labor between women and men will result in social change, economic growth and gender equality. It is very important for local economy development. The limitations of women's participation are due to tradition, economic losses, and low education [17]. Equality of gender can increase the economic growth, but economic growth doesn't have impact for gender equality [18].

Women choose the part time work rather than full time work, and informal sector rather than formal sector [18]. Percentage of working women in tourism is high, but they gets the low income [19]. Women have lower incomes than men; even though they work in the same position [16].

Women in lok Baintan floating Market works in part time and informal sector. They work in the morning as the traders, and then they collect the merchandise in the afternoon. The condition causes the low income of women in Lok Baintan Floating Market.

The Implication for Tourism Development

Women roles in tourism sector are determined by demands of tourist. Women have proved as are agents for building capacities of tourism sector [17]; but demand of tourism determines the woman empowerment [18], [20], [21]. Tourism industry has the high contribute for women empowerment [22].

Women become very important in the presence of the tourism in Lok Baintan floating market. Women role during preparing the merchandise until trading in next morning become the tourism attraction in Lok Baintan Floating Market. Tourist wants to see the women activity in Lok Baintan Floating Market. Tourist also wants to buy the merchandise. Tourist visits determine the income for women in Lok Baintan Floating Market.

Women empowerment in this floating market determines the development of tourism; otherwise tourism development determines women empowerment. Interdependence between women and tourism in Lok Baintan is very high.

Women participations in tourism industry are higher in operative level than in managerial position due to low education and unskill [23], [24]. Training and capacity building, and financial support are needed to increase the empowerment of women and development of women capacity in tourism industry [20].

CONCLUSION

Women in Lok Baintan Floating Market have the important role. Women trade the local product such as handicraft, agriculture product, fishery product, culinary product. Women have the role as the trader in Lok Baintan Floating Market. Women also have the role for merchandise collecting. Women's activities in Lok Baintan have become a tourist attraction. Women work on informal sector, so that they get the low income; but women activity has an impact for family welfare, local economic, and tourism development in Lok Baintan Floating Market.

ACKNOWLEDGMENTS

This research is funded by the Ministry of Research, Technology, and Higher Education through research grant. The author would like to thank for the research funding.

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Exploration of Marine Tourism in Watulimo, Trenggalek Regency: Challenges, Potentials, and Development Strategies

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Abstract

Watulimo District, Trenggalek Regency is one of the area in East Java Province that has an abundant marine potential. However, this huge potential has not been optimally developed in a form of marine tourism. This study aims to determine internal and external factors that influence the development of marine tourism in Watulimo Subdistrict, Trenggalek, and develop a strategy of marine tourism development in a sustainable manner. This study was conducted on 4 beaches in Watulimo Subdistrict, Trenggalek Regency: Prigi, Karanggongso, Cengkong, and Damas. Interviews were conducted by using semi-structured technique. Secondary data is obtained from government policy documents relating to tourism; tourism infrastructure facilities in the research location; data of tourist visits; geography and demographics; socio-cultural and economic data. Most respondents believe that promotion (0.083) and tourist information center (0.075) indicator are considered very important. Advances in information technology have the highest weight (0.097), where respondents can know about the state of the marine tourism area based on information and reviews. The results show the number of scores obtained from the weighting and external factor rating of 2.656 (good value range), which illustrates that the marine tourism area in Watulimo has an opportunity in its development. Cooperation with travel agents, hotels, restaurants, and tourist information centers for Trenggalek District can be incorporated into their brochures to increase traffic.

Keywords: development, information, promotion, tourism, Watulimo.

INTRODUCTION

Watulimo District, Trenggalek Regency is one of the area in East Java Province that has an abundant marine potential. There are several beach area such as Prigi (2.5 km), Karanggongso (1 km), and Damas (5 km) which are visited by domestic tourist. The development of marine-based tourism in Trenggalek Regency is important to enhance the local economic development and crucial in poverty reduction strategy.

One of the potential sites for tourism development, but less developed, is Cengkong Beach. Naturally, Cengkong Beach has a natural mangrove forest that are important to support coastal biodiversity [1,2,3]. However, this huge potential has not been optimally developed in a form of marine tourism. The activities in each tourist attraction still occur independently and not connected. The facts stated that tourist visit focused on a single tourist attraction, which is Karanggongso Beach, and there is a stagnant or decreased visits on other beaches. It is recorded that Karanggongso Beach visitors reaches up to 337,180 in 2014. This is very much different

compared to other beaches, namely Prigi (82,211) and Damas (29,187) [4].

Marine tourism is one type of tourism that has a major contribution to the economy [5,6]. The contribution of marine tourism to national development is the provision of employment and other economic activities (multiplier effect) and foreign exchange earnings [7,8] by a region, not hence become a competitive advantage. Thus, it is necessary to have a well-planned and long-term strategy for marine tourism to truly be one of the economically sustainable areas/ecosystems [2]. In addition, a direction is needed as an effort to develop the tourism sector in Watulimo District by combining and integrating a number of marine tourism potentials that exist in one area to increase tourist visits. This study aims to determine internal and external factors that influence the development of marine tourism in Watulimo Subdistrict, Trenggalek, and develop a strategy of marine tourism development in a sustainable manner.

MATERIALS AND METHOD

Study sites

This study was conducted on four beaches in Watulimo Subdistrict, Trenggalek Regency: Prigi Beach, Karanggongso, Cengkong, and Damas (Fig. 1). Prigi is a beach with a coastal length of 2.5 km and has a soft and white sand beach. This beach has the most complete modern facilities:

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parking area, camping ground, sport center, hotels, and restaurant. There is a fish port in the west. Larung Semboyo, a maritime festival that attracts many tourist, was done every year in this area. Karanggongso is a beach in a sheltered bay, so it has a calmer waves than Prigi. This beach has no major management, either by government or community-based. The tourists visit number was very little. The micro climate on the beach is quite cool, because of the abundance of coconut trees and Ketapang (*Terminalia catappa*) growing on this sandy beach. Other objects other than the beach are Pearl Rocks and Red Cave. Both are often used as a photo object by tourists.

Cengkronk has another value, namely the existence of mangrove forest and its management that involve the local community as ecotourism [3]. Last, Damas beach is located at 5 km southwest of Prigi. Although it is not as white as Prigi's, Damas sand is quite soft. The beach is also shady because of the abundance of coconut and Ketapang trees. Its location at bay makes the currents and waves are very calm, allowing some tourist activities, such as surfing, fishing, and swimming.

Data Collection

Informants were determined purposively through several criteria, i.e. has a knowledge on the problems identified, accepted by various society element, and has a tourism knowledge. The informants were: Departement of Youth and Sports (n=3). District Secretary (n=1), Village Head (n=1), Village Secretary (n=1), Chairman of Tourism Awareness Group (*Kelompok Sadar*

Wisata) (n=1), Community Leader (n=2), Tourism Industry Entrepreneurs (n=7), Academics (n=3), and Tourist (n=10). Interviews were conducted at once with semi-structured method, as primary data. Interview questions include:

- a) *Development*: number of tourist visits, assets (tourism facilities), and profit
- b) *Stability*: improvement and development
- c) *Survival*: negative tendencies/weaknesses, coping strategies weakness,
- d) *Diversification*: diversity of attractions/products.

Observations were made on the physical condition and activity at the site, then documented. Secondary data is obtained from government policy data related to tourism, tourism infrastructure facilities in the research location, data of tourist visits, geography and demographics, as well as socio-cultural and economic data.

Data Analysis

The data obtained are processed by classification according to the order of the problems and the classification of internal and external factors. After the classification, we do strategy development using SWOT analysis. All elements in the SWOT will be compiled through the respondent's answer to the question posed. SWOT analysis is used to identify and formulate a strategy. The SWOT analysis is based on logic to maximize Strength and Opportunity, while simultaneously minimizing Weakness and Threats.

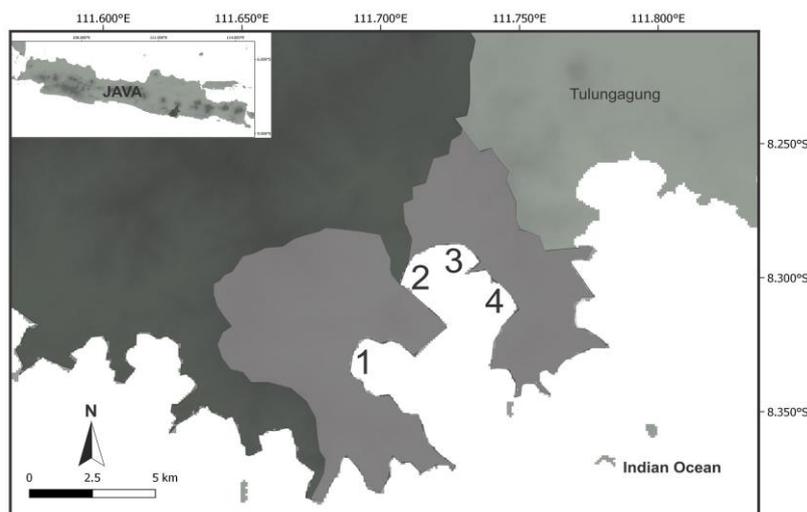


Figure 1. Study Sites. **Description:** Damas (1); Cengkronk (2); Prigi (3); Karanggongso (4); dark grey (Trenggalek Regency); grey (study sites); light grey (other regency)

Analysis of internal and external strategy factors is done through rating on each strategic factor. Strategic factors are the dominant factors of strengths, weaknesses, opportunities, and threats that affect the existing conditions and situations and provide benefits when positive action is taken. The number of weight on each environments when summed should be =1 (one), with scale 1.0 (very important) up to 0.0 (not important). For rating value based on the magnitude of the influence of strategic factors on his condition with the provision of scale ranging from 4 (very strong) to 1 (weak). Positive variables (strength or opportunity variables) are rated from 1 to 4 by comparing with the average main competitor. While variables are negative opposite, if the weakness or big threat (compared with the average of similar competitors) is 1, whereas if the value of the threat is small/below the average of its competitors is 4.

RESULT AND DISCUSSION

Internal Factors

Most respondents believe that promotion (0.083) and tourist information center (0.075) indicator (Table 1) are considered very important given that the existing marine tourism attraction in Watulimo is currently less known. It is necessary to have a comprehensive promotion and supported by the tourist information center as a pointer of information about the presence of marine tourism sites in Watulimo.

Other districts have achieved high revenues, some of which are from marine tourism. Banyuwangi is one example of a district in East Java that has managed to get great benefits from marine tourism. In 2013 alone, visits in Banyuwangi have increased significantly, namely foreign tourists (5,502 to 10,462 people or 90%) and domestic tourists (860,831 to 1,057,952 people or 24%). The growth of Banyuwangi tourism is due to the intense promotion of tourism by local government from 2012-2013 [9]. Local government support, as in Banyuwangi, can strengthen the development of marine tourism in Watulimo.

The natural beauty indicator is the third indicator (0.073) and is considered important. Most respondents argued that the natural beauty indicator is the most important indicator because this indicator can reflect the natural beauty of marine tourism in Watulimo as a tourist attraction. The natural beauty of marine tourism

in Trenggalek Regency has been proven by the presence of tourists both local and foreign [4].

Table 1. Weighting Internal Factors of Marine Tourism in Trenggalek Regency

Variable/Indicator	Weight
Attraction	
Beauty of nature	0.073
Cleanliness of environment	0.068
Accessibility	
Distance from Trenggalek Regency Capital	0.061
Quality of roads	0.072
Availability of tourist transport	0.062
Amenities	
Tourist attraction	0.060
Toilet	0.062
Parking lot	0.062
Stalls and street vendors	0.062
Praying spot	0.065
Ancillary service	
Attraction manager	0.068
Service quality	0.063
Promotion	0.083
Tourist Information Center	0.075
Regulations	0.064

Indicator of tourism facilities in the existing marine tourism area in Watulimo get the lowest weight of 0.060. A small percentage of respondents argue that this indicator can be an attraction for tourists in determining where to stay and in terms of services. On the contrary, most believe that enjoying marine tourism in Watulimo requires no tourism facilities and can immediately provide satisfaction for visitors. Indicator of marine tourism attraction close to the capital of Trenggalek Regency is the second weakness factor (0.061), where for the respondent a considerable distance does not make it easy for the visitors to access and enjoy the tourist attraction directly.

Most respondents argue that the first very good value indicator is natural beauty with a value of 3.65 (Table 2). According to the respondents, Wisata Bahari Trenggalek Regency has the power of natural beauty such as beach with white sand, beauty of coral reefs and clear sea water. The second indicator that get very good value and become the strength in the development of maritime tourism attraction in Trenggalek regency is the quality of the road to the tourist attractions, which has a large value of 3.17. Most respondents argue that the quality of marine area roads in District Watulimo Trenggalek Regency has been very good since the existence of the *Jalur Lintas Selatan* (South Roadway) project linking the southern beaches in East Java Province.

Indicator which is the weakness in tourism development is tourist information center with value 1.96 and second threat that is manager of tourism facility at maritime area of Trenggalek Regency, 2.10. Most respondents argue that the tourist information center indicator that is not yet available and the indicators of tourism attraction managers are considered less because the public and the government has not been synergistic in the planning of tourism development of marine tourism area. This area is also still very lacking in tourism facilities. The means in question are hotels, inns, cafes, and other tourism support facilities. This is evidenced not only by the opinions of respondents but also by direct observation by researchers in the field. However, if viewed from the point of view of convenience then the tourists who visit can be more relaxed if they find adequate tourism facilities.

Table 2. Rating of Internal Factors of Marine Tourism in Trenggalek Regency

Variable/Indicator	Rating	Description
Attraction		
Beauty of nature	3.65	Strength
Cleanliness of environment	2.96	Strength
Accessibility		
Distance from Trenggalek regency capital	2.73	Strength
Quality of roads	3.17	Strength
Availability of tourist transport	3.05	Strength
Amenities		
Tourist attraction	2.10	Weakness
Toilet	2.35	Weakness
Parking lot	2.53	Strength
Stalls and street vendors	2.35	Weakness
Praying spot	2.50	Weakness
Ancillary service		
Attraction manager	2.10	Weakness
Service quality	2.17	Weakness
Promotion	2.51	Strength
Tourist Information Center	1.96	Weakness
Regulations	2.60	Strength

External Factors

Advances in information technology have the highest weight (0.097), where respondents can know about the state of the marine tourism area based on information and reviews. Information is very important for travelers, such as information of access, conditions, and other purposes in enjoying a tourist attraction (Table 3). Advances in information such as the internet and telephone networks can make it easier for travelers to visit, and place orders without having to come directly [10]. This indicator is considered

very important in the development of marine tourism area in Trenggalek regency.

Table 3. Weighting of External Factors on Marine Tourism Area

Variable/Indicator	Weight
Environment	
Public awareness in preserving environment	0.092
Global Warming	0.054
Economy	
National economic conditions	0.074
Global economic conditions	0.081
Socio-culture	
Community participation in preserving culture	0.097
Advance in Technology	
Transportation	0.092
Information	0.097
Politics and Government	
Global political conditions	0.070
National political conditions	0.075
Government policy in tourism development	0.087
Security of marine tourism area in Trenggalek	0.095
Competitiveness	
Competitiveness with similar tourist attraction	0.086
Total	1

Notes: Weighting of external factors is done on a scale of 0.0 (unimportant) to 1.0 (very important), where the total of all weights must be equal to 1.

Security of marine tourism area is the second most important indicator (0.095), as shown in Table 3. This indicator is considered the most important considering the safety conditions of marine tourism areas to be one reason for tourist visits. Security is able to provide a sense of comfort for tourists in doing tourism activities and facilitate managers in doing promotion [11]. Global warming gained the lowest weight (0.054), and most respondents thought that this indicator was less important. Nevertheless, with the issue of global warming in the hope that the government and society to maintain and pay attention to the sustainability of the environment so that it can be passed on to future generations.

Global warming has had a devastating impact on tourism, especially with regard to animal behavior, growing, as well as growing of flowering plants, as well as the destruction of natural landscape and liming of coral [11,12,13]. Based on that, Trenggalek regency government and marine tourism community should be wary of investor behavior that is not environmentally friendly and tend to utilize excessive natural resources to gain profit which can damage marine tourism environment. This is because the maritime region and all marine biota in it, is the front row of environmental impacts of global warming.

Most argue that the safety of marine tourism areas has the highest probability (3.5; Table 4). This shows that the condition of marine tourism security in Trenggalek regency in general is still good and under control, because it is supported by good cooperation between police and society. In addition, there are rules and customary managers who support the security of tourist areas. Tourists in a visit to a tourist destination require a sense of security and comfort so that it can extend the stay (lengths of stay) and the presence of repeat visits (repeater guest) [14].

Table 4. Result of External Factor Assessment of Marine Tourism Area in Trenggalek Regency

Variable/Indicator	Rating	Description
Environment		
Public awareness in preserving the environment	2.25	Threat
Global Warming	1.36	Threat
Economy		
National economic conditions	2.89	Opportunity
Global economic conditions	2.67	Opportunity
Socio-culture		
Community participation in preserving culture	2.98	Opportunity
Advance in Technology		
Transportation	2.60	Opportunity
Information	2.03	Threat
Politics and Government		
Global political conditions	2.89	Opportunity
National political conditions	2.87	Opportunity
Government policy in tourism development	2.59	Opportunity
Security of marine tourism area in Trenggalek Regency	3.5	Opportunity
Competitiveness		
Competitiveness with similar tourist attraction	2.85	Opportunity

The indicator considered as the second opportunity is the participation of the community in preserving the culture (2.98). Recent tourist trends indicate a shift of tourist interest from conventional tourism to alternative tourism, which one of them is spiritual tourism [15]. The development of spiritual and historical tourism is in line with the increasing desire of people to seek silence and inner calm and out of the busy routine and pressures of life faced in the era of globalization.

The results show the number of scores obtained from the weighting and external factor rating of 2.656 (good value range) (table 5). This illustrates that the marine tourism area in Watulimo has a great opportunity in its development as a tourist attraction. However,

some indicators point to some threats that need to be addressed for further development.

Table 5. Results of Assessment and Weighting of External Factors of Marine Tourism Area in Trenggalek Regency

Variable/Indicator	Weight	Value	WxV
Environment			
Public awareness in preserving the environment	0.092	2.25	0.207
Global Warming	0.054	1.36	0.073
Economy			
National economic conditions	0.074	2.89	0.214
Global economic conditions	0.081	2.67	0.216
Socio-culture			
Community participation in preserving culture	0.097	2.98	0.289
Advance in Technology			
Transportation	0.092	2.60	0.239
Information	0.097	2.03	0.197
Politics and Government			
Global political conditions	0.070	2.89	0.202
National political conditions	0.075	2.87	0.215
Government policy in tourism development	0.087	2.59	0.225
Security of marine tourism area in Trenggalek Regency	0.095	3.5	0.333
Competitiveness			
Competitiveness with similar tourist attraction	0.086	2.85	0.245
Total	1		2.656

Strategy

From the matrix of Internal Factor analysis summary (IFAS) (Table 6), it can be seen that the total score of strength variable (1.582) is greater than the total score of weakness variable (1.008). This illustrates that the development of Watulimo marine tourism will not be disturbed by its internal weaknesses and is strongly supported by the potential power that it naturally has over the years.

Based on External Factor Analysis Summary (EFAS) matrix (Table 7), it is known that total score of opportunity variable (2.719) is greater than total score of threat variable (0.477). Thus, it can be said that in the development of marine tourism area of Trenggalek Regency, opportunity variable is more influential than the threat variables. This illustrates that the development of Watulimo marine tourism will not be disturbed by external threats, even some supporting factors can accelerate its development. Both IFAS and EFAS illustrate that Watulimo marine tourism still has great potential to continue to grow. IFAS and EFAS form the basis of subsequent development actions to minimize weaknesses (IFAS) and threats (EFAS), and enlarge future (IFAS) and opportunities (EFAS) strengths [16,17].

Table 6. IFAS Matrix of Marine Tourism Area in Trenggalek Regency

Strength variable	Weight	Rating	Score
Beauty of nature	0.073	3.65	0.266
Cleanliness of environment	0.068	2.96	0.201
Distance from Trenggalek Regency capital	0.061	2.73	0.167
Road quality	0.072	3.17	0.228
Availability of tourist transport	0.062	3.05	0.189
Parking lot	0.062	2.53	0.157
Promotion	0.083	2.51	0.208
Regulations	0.064	2.60	0.166
			1.582
Weakness variable	Weight	Rating	Score
Tourist attraction	0.060	2.10	0.126
Toilet	0.062	2.35	0.146
Stalls and street vendors	0.062	2.35	0.146
Praying spot	0.065	2.50	0.163
Attraction manager	0.068	2.10	0.143
Service quality	0.063	2.17	0.137
Tourist Information Center	0.075	2.60	0.166
			1.008
Total			2.590

Table 7. EFAS Matrix of Marine Tourism Area in Trenggalek Regency

Opportunity Variables	Weight	Rating	Score
National Economic Conditions	0.074	2.89	0.214
Global Economic Conditions	0.081	2.67	0.216
Community participation in preserving culture	0.097	2.98	0.289
Transportation	0.092	2.60	0.239
Global Politics Conditions	0.070	2.89	0.202
National Politics Condition	0.075	2.87	0.215
Government policy in tourism development	0.087	2.59	0.225
Security of marine tourism area of Trenggalek Regency	0.095	3.50	0.333
Competitiveness with similar tourist attraction	0.086	2.58	0.245
			2.719
Threat Variables	Weight	Rating	Score
Public awareness in preserving the environment	0.092	2.25	0.207
Global Warming	0.054	1.36	0.073
Information	0.097	2.03	0.197
			0.477
Total			2.656

Strengths such as attractiveness, access and friendliness of the population can be utilized to seize the greatest opportunity so that the appropriate strategy is to increase promotion. Promotion is intended to expand market share and increase the number of visits to the marine tourism area of Watulimo. The function of promotion is to communicate all sorts of information about all that is owned, and can be offered to tourists. The program that needs to be done is to make brochures and pages on a continuous basis containing the attraction and facilities available in Watulimo. This kind of program could increase cooperation with tourism industry both domestic and foreign in terms of promotion and distribution of tourists.

As the challenges and assets possessed by the development of Watulimo marine tourism,

promotion is an important part of an acceleration of tourism [9]. SWOT strategy analysis (Appendix 1) has demonstrated the need for adaptation of promotion through both conventional and current media, such as social media. Social media is part of the latest generation of information-based technologies with a wide range and low cost, and a great potential for ecotourism promotion [18]. Cooperation with travel agents, hotels, restaurants, and tourist information centers for Watulimo Beach development can be incorporated into their brochures to increase tourism traffic.

The selected strategy is as follows in SWOT matrix analysis (Appendix 1). Continuous promotion through local TV, radio and social media is aimed at: (1) expanding market share and

increasing the number of visits to Watulimo marine tourism; (2) synergize and enhance cooperation with tourism industry actors at home and abroad, especially in terms of tourism promotion and tourist distribution; (3) synergize cooperation with travel agents, hotels, restaurants, and tourist information centers so that information about tourism in Watulimo can be incorporated into the information system. The importance of transportation sector in supporting tourism promotion [19]. Transport and promotion are also main factor in the development of tourist areas [20-24].

Unfortunately, little attention is given to the changing environment and the impact of global warming. Inevitably, the addition of visits to a tourist attraction will have an impact on the environment and its sustainability as a tourist site [25]. The SWOT strategy shows several strategies in anticipating this: Conducting and maintaining environmental sustainability, Involving community in tourism development, establish a governing body, and increasing human resources in tourism (detail in Appendix 1).

CONCLUSION

The development of marine tourism area of Trenggalek Regency is influenced by internal factors (promotion and tourist information center) and external factors (information technology). The development of the Watulimo marine tourism area as a sustainable form of tourism requires several strategies: 1) increasing promotion; 2) to arrange and preserve the environment and involve the community in tourism development; 3) develop more varied tourist attraction products and develop tourism facilities, and public facilities; and 4) establishing a governing body and improving human resources.

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Appendix 1. SWOT matrix analysis

<p style="text-align: center;">Intern Factor (IFAS)</p> <p style="text-align: center;">Extern Factor (EFAS)</p>	<p style="text-align: center;">STRENGTH (S)</p> <ol style="list-style-type: none"> 1. The beauty of nature 2. Cleanliness and environmental sustainability 3. Distance with the capital of Trenggalek Regency 4. Quality of the road 5. Availability of tourist transport 6. Parking lot 7. Promotion 8. Regulations 	<p style="text-align: center;">WEAKNESSES (W)</p> <ol style="list-style-type: none"> 1. Tourism facilities 2. Toilet 3. Stalls and street vendors 4. Mushola (praying room) 5. The attraction manager 6. Quality of service 7. Tourist Information Center
<p style="text-align: center;">OPPORTUNITIES (O)</p> <ol style="list-style-type: none"> 1. National economic conditions 2. Global economic conditions 3. Community participation in preserving culture 4. Transportation 5. Global political conditions 6. National political conditions 7. Government policy in tourism development. 8. Safety of marine tourism area in Trenggalek Regency. 9. Competitiveness with similar tourist attraction. 	<p style="text-align: center;">STRATEGY SO</p> <ol style="list-style-type: none"> 1. Promotion is done continuously either using print media, TV, radio and social media to expand market share and increase the number of visits to marine tourism area in Trenggalek Regency. 2. Increased cooperation with the tourism industry either domestically or abroad in terms of promotion and distribution of tourists. 3. Cooperation with travel agents, hotels, restaurants, and tourist information centers for Trenggalek Regency can be incorporated into their brochures to increase traffic. 	<p style="text-align: center;">STRATEGY WO</p> <ol style="list-style-type: none"> 1. Developing more varied tourist attraction products. Tourist attraction is one element that can attract tourists to visit. Trenggalek Regency marine tourism attraction consists of beautiful nature, especially the scenery of cliffs, coastline, and underwater scenery 2. Conservation activities as an attraction, such as a turtle breeding ground 3. Mapping the potential of marine tourism in Trenggalek Regency for diving, snorkeling and trekking activities but also can be developed other types of tourism are: spiritual tourism, cultural tourism by displaying cultural arts performances are owned regularly to tourists, educational tours by inviting students to visit the breeding grounds and learn about turtles. 4. Development of tourism facilities is needed in the marine tourism area to meet all the needs of tourists during a visit. In addition to providing comfort for tourists. Can also affect the length of stay and the average expenditure per day of tourists, thus increasing the income of the community. 5. The presence of tourist information center in strategic locations could assist and guide the tourist in marine tourism area 6. Develop public facilities by repairing roads, structuring the bus terminal, and providing lighting in the streets at night. The provision of adequate public facilities affects the convenience of travelers in traveling, and is also beneficial to the local community.

<p style="text-align: center;">Intern Factor (IFAS)</p> <p style="text-align: center;">Extern Factor (EFAS)</p>	<p style="text-align: center;">STRENGTH (S)</p> <ol style="list-style-type: none"> 1. The beauty of nature 2. Cleanliness and environmental sustainability 3. Distance with the capital of Trenggalek Regency 4. Quality of the road 5. Availability of tourist transport 6. Parking lot 7. Promotion 8. Regulations 	<p style="text-align: center;">WEAKNESSES (W)</p> <ol style="list-style-type: none"> 1. Tourism facilities 2. Toilet 3. Stalls and street vendors 4. Mushola (praying room) 5. The attraction manager 6. Quality of service 7. Tourist Information Center
<p style="text-align: center;">THREATS (T)</p> <ol style="list-style-type: none"> 1. Public awareness in preserving the environment 2. Global warming 3. Information 	<p style="text-align: center;">STRATEGYST</p> <ol style="list-style-type: none"> 1. Conducting and maintaining environmental sustainability. Maritime tourism Trenggalek Regency has a genuine environment and less maintained, so it needs to be done such as setting up a park in the places of marine tourism 2. Involving community in tourism development. In the development of a sustainable tourism area the main key is the involvement of the community, from the time of planning, management and supervision 3. Conservation efforts on the potential of art and culture that is used as an attraction by establishing dance groups and improve the creativity of the community. 	<p style="text-align: center;">STRATEGY WT</p> <ol style="list-style-type: none"> 1. Establish a governing body. A tourism area will be managed properly if it has a special management agency that has the function and authority to manage the area. The body includes elements of society, government, practitioners and NGOs that will affect the satisfaction and comfort of tourists. The existence of the governing body can minimize the threat to the marine tourism area of Trenggalek Regency. The activities of this body include promotions. 2. Increasing Human Resources in tourism. The tourism industry's dominant product is services, for which human labor is necessary. Tourists will feel satisfied if served well, so it takes a professional workforce in the field of tourism and able to compete.

Private Business' Roles as Stakeholders in Developing Surabaya as Tourism Destination

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Abstract

According to UNWTO report, the international tourist arrivals reached 1.2 billion people in 2016. There was 5% growth in the developed countries and 2% growth in the developing countries, including Indonesia. In 2016, Indonesia welcomed 11.52 million international tourists. As the second biggest city in Indonesia, Surabaya has important roles for the country. Receiving around 564,000 international tourists in 2016, Surabaya had changed into a tourism destination. The development began in 2005 when Surabaya Tourism Promotion Board was set up to promote the city tourism. This board consists of private tourism business, such as hotels, restaurants, travel agents and tourist attraction operators. They are working together with other tourism stakeholders in Surabaya. This study aims to reveal the roles of private business in developing Surabaya as tourism destination. The study describes the activities done by private business to develop Surabaya, such as conducting promotional activities, developing products, initiating new programs and joining in international events. Moreover, they are actually helping their own business as well as supporting tourism destination development in Surabaya. This study shows that commitment, consistency, and collaboration among private business as the stakeholders are the keys to develop tourism destination in Surabaya.

Keywords: Destination, Development, Private Business, Roles, Surabaya, Tourism.

INTRODUCTION

Surabaya as the second biggest city in Indonesia has transformed into a metropolitan city. Located in the seaside area, this city becomes the center of trade for Eastern part of Indonesia [1]. This city has a dynamic development in regard to the commodity and the product of the city, from the colonial era until recently. For years, the main income of the city is mostly from manufacture and trade. However, Bureau of Statistics reports the city incomes had started to change in 2003, from trade and manufacture into trade and services [2]. This condition eventually brings tourism to be one of the important driving factors for service industry in Surabaya. The development of tourism in the city began to take place when the government set up Surabaya Tourism Promotion Board (STPB) in 2005 [3]. This board consists of tourism business people representing hotels, travels, and tourist attraction operators in Surabaya. Although it was set up by the government, this board was run and managed privately.

The development of Surabaya as tourism destination was indicated by the use of city branding, *Sparkling Surabaya* in early 2006 [4]. The use of the branding had become the indicator of the effort to generate tourism activities in the city. As a tourism city, the character of Surabaya is different from the established tourism cities in Indonesia, such as Bandung in West Java, Yogyakarta in Central Java and Malang in East Java. Geographically, those cities are resort-based cities in which tourists mostly go there to have recreation with the family and do many leisure activities. On the other hand, visitors coming to Surabaya due to business activities, such as trade, meeting, convention, conference and exhibition [3]. Surabaya as a tourism city actually has many tourist attractions, thus developing urban tourist attractions becomes the concern of many stakeholders, especially for private business, such as hotels, travel agents and tourist attraction operators.

Creating more reasons for tourists to come and extend their length of stay in Surabaya become important objectives for tourism stakeholders. Surabaya is trying to become a tourism city, although it is not located in a resort area. The role of government as the stakeholder to attract tourists is highly needed. Unfortunately, after the launching of STPB in

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2005 and introducing *Sparkling Surabaya* as city branding, the effort of government is not as great as expected.

The number of local and international tourists in Surabaya keeps growing every year due to the effort of private business as well as local people. Moreover, the role of private business is crucial in developing tourism destination in Surabaya. Tourism stakeholder consists of hotels, restaurants, travel agents and tourist attraction operators, including tourism related business such as transportation and souvenirs store. This group of stakeholder has a high motivation to develop tourism activities, since the continuity of their business mostly depend on the tourists coming to Surabaya. Developing tourism in the area which is not geographically located in a tourism area, such as Surabaya, is challenging. There are still limited studies done on this subject. Therefore, this study aims to describe the roles of the private business in developing tourism destination in Surabaya. This qualitative study used interview, observation and literature review to collect the data. The data was described narratively in the study. The finding of this study had revealed the importance of private business as the stakeholder of tourism destination development, especially in the urban city which is not in a resort area, such as Surabaya.

LITERATURE REVIEW

Stakeholder in tourism is a topic that has been widely studied and explored by many researchers. The discussion about stakeholders had been going on for several years [5]. On the other hand, the tourism destination development is an ongoing process that has been widely studied both in the rural and urban tourism area. The process of the development is affected by many factors, in which tourism stakeholder plays important role in it. In order to frame the discussion, this chapter provides conceptual basis for this research. This chapter describes the definition and the concept of tourism stake-holders, especially private business as stake-holders in tourism destination development.

Stakeholder Concept

The initial definition of stakeholder is accredited to an internal memo produced in 1963 by the Stanford Research Institute [6]. According to this memo, stakeholder is a group of people who share the same objectives in the organization [7,8]. It is clear that this definition is

completely organization-centered. Other definition elaborates stakeholder as any group or individual that can influence or be influenced by the accomplishment of the objectives which has been set by the group or individual in certain condition [9]. The later definition has been argued to have wider perspectives than the one earlier brought by the Stanford Research Institute. This definition may also create an opportunity for outside individuals or groups to consider themselves as stakeholders of an organization, without the acknowledgement of the organization. This definition stipulates both individuals and groups [10]. In this case, the definition is not only on the achievement of the objectives, but also focuses more on the relationship of the stakeholder. This also makes any group or individual can be included as stakeholders, since they are affected by unintentional consequences of the organization activities. In the context of tourism destination development, stakeholders can be individuals or groups who are directly and indirectly involve in the process, yet are affected by the process.

The most comprehensive definition of stakeholders suggests that stakeholders are those who make actual stakes and basically influence the organization [11]. Stakeholder is defined as any entity which affects or is affected by organizational performance, not only does this include living entities such as animals and plants, but also non-living environmental forms such as water and rocks. Furthermore, it also considers the former organizations or the elders as the stakeholders, since they are the ones who put the legacies. In the tourism destination development context, there are groups of people or individuals who have started the basics of development, but are no longer involved in the process of development.

Definition of Tourism Stakeholder

In tourism destination development, several stakeholders are actively involved in the process. Those stakeholders are from social, political and business elements. Stakeholders in tourism can be categorized into five parties, namely governments, private business, tourists, host communities and other related sectors [12]. Each of them has critical component for tourism destination development. The thoughts and initiatives of stakeholders are crucial for the strategic planning of the development process [13]. Nevertheless, the type of stakeholders in

tourism may depend on the geographical location, issues and objectives [14,15].

In relation to private tourism business, the content of network relationships is associated with structure contributing to tourism business [16]. It is used to overcome shortage of resources and competencies among stakeholders.

Private business as tourism stakeholder

Along with the previous type of stakeholders [12], it is important to identify the groups or individual as the tourism stakeholder, especially private business. This study focuses on the network relation done by private tourism business to take part in the development process [17]. It includes generating needed ideas among private tourism business to cooperate effectively with other stakeholders. In line with business, tourism stakeholders comprise hotels, travel agents, restaurants, tourist attraction operators and other related business. The main responsibilities of the private business are accommodation (hotels and apartments), food and beverages (cafes and restaurants), shopping and entertainment (shopping centers, cinemas, and theme parks), Meeting Incentive Conference and Exhibition (MICE) business and other related services business [18]. Private business makes a living from providing services for tourists. Therefore, private business has to go beyond their boundaries to work with each other. Private business, especially small business scale, need to work together to achieve the maximum profit in their business [19]. Collaboration is crucial for small businesses which are typically associated with a shortage of funds and lack of management and marketing skills. However, bigger companies also need to cooperate and create network to obtain greater objectives. Stakeholders of tourism include those who are working under partnership of local management and other public organizations since they have direct activities on resource portion and tourism business related sectors [20].

Tourism Destination Development

Studies about the role of stakeholders in tourism destination development are viewed from various perspectives. The perspective of marketing is one of the most important factors for tourism destination development [21]. The publications in 1989 point out that the role of stakeholders in promoting the destination is an important part of the development [21]. Marketing has powerful influence for tourism destination development [22,23]. All of them put

tourism destination development as the main discussion of their study. Tourism destination development needs an integrated marketing strategy that should be performed consistently. Developing tourism destination needs a great deal of planning and management initiatives [24,25]. It also involves all stakeholders who have direct relation with the tourism destination development.

The progress of tourism destination development can be seen through several indicators, such as economic, environmental and social development. The economic indicators are indicated by the growth of the amount of business [26], the establishment of the infrastructure and the increase of market. In terms of environmental and socio-cultural impacts, tourism destination development leads to the sustainability of the environment and the growing number of local culture conservation [27,28]. Furthermore, the tourism destination development involves certain phases that have different condition in every stage [26]. Several studies are conducted using Butler's Life Cycle to measure or explain the condition of [29]. Each of these researches has provided the basis for obtaining relevant information on tourism destination development aspects. The topic of tourism destination development is discussed using a multidisciplinary approach [30]. Understanding the overall change of tourism destination development is important, as tourism is a complex multi-element phenomenon. Thus, the outcome is mostly in interdisciplinary approach [31]. It creates the opportunities to understand tourism destination development in many perspectives.

MATERIALS AND METHOD

Data Collection

This is a qualitative descriptive study, in which the primary data is gathered through in-depth interview, observation and literature review. The primary data of this study was collected through in- depth interview with the informants and observation of activities. Five informants as important informants were being interviewed within 30-60 minutes duration. These informants represented the private business as the stakeholder of tourism destination development in Surabaya, which were: 1. the Head of STPB (Surabaya Tourism Promotion Board), 2. the Vice Chairperson of Casa Grande (Hotel General Manager Association), 3. the Head of House of Sampoerna

Museum, 4. the Head of Aneka Kartika Travel Agent (the biggest inbound Tour Operator in Surabaya), and 5. the Head of FORKOM (Tourism Object Communication Forum).

For the primary data, this study applied the semi structured in depth interview. The interviews were conducted in the informant's offices with informal setting, which was elaborated according to the interview questions [32]. Thus, the analysis of the interviews was done through the interview transcripts. In addition, the observation was conducted during the events and the activities held by private business. Moreover, for the secondary data, this study applied literature review, which was obtained by reviewing the related literature on the subjects. This included gathering any publications related to activities of developing tourism in Surabaya, especially done by STPB, hotels, travel agents and tourism attraction operators.

Data Analysis

The data was summarized and sorted based on the subjects, and thematic framework approach was utilized for the data set [33]. Thus, the data collected from interview and observation was compared and contrasted to build the arguments for this study. The result was presented descriptively to explain and analyze the study's objectives.

RESULT AND DISCUSSION

Various type of private business becomes the stakeholders in tourism destination development in Surabaya. The existence of hotels, tour and travel companies, tourist attractions and restaurants become the dominant factors for attracting tourists. In addition, souvenirs shop, authentic local cake shop, and transportation are also important for tourism development process. All these private business are collaborating in order to develop Surabaya as an attractive tourist destination.

Additionally, they are not only working independently but also joining with others to develop Surabaya. There are several tourism organization such as PHRI (Association of Indonesia Hotel and Restaurant), ASITA (Association of Indonesia Tour and Travel Agency) and FORKOM (Communication Forum of Surabaya Tourist Object). These organizations collaborate to make Surabaya known not only locally but also internationally.

The effort of private business is crucial in developing Surabaya [3]. Surabaya tourism

development began in 2005 when a tourism promotion board, called STPB (Surabaya Tourism Promotion Board) was launched, followed by the launching of the city branding *Sparkling Surabaya*, as seen in Figure 1 [34]. Though the initiation of this board was from the government, the ones managing the board were the private business. STPB consisted of tourism professionals and experts from various tourism businesses, who hold important position in their company and organization.



Figure 1. The Launching of *Sparkling Surabaya*

For years, STPB becomes the planner as well as the executor of all promotional activities to attract more tourists. In the past 10 years, there was a growing number in the tourists' arrival in Surabaya. The government official stated that in 2015, Surabaya welcomed 9,606,838 local tourists and 575,266 international tourists. Although the number of tourists was growing, unfortunately, the activities of STPB have been drastically declined in the past 5 years due to the lack of support from the government.

However, private business in Surabaya has shown its resilience, consistency and commitment in developing the city to be tourism destination. As the stakeholders, they work together in their own ways to maintain and boost tourism destination development in Surabaya. The collaboration among the stakeholders can be effectively applied to resolve and minimize the conflict as well as achieve the common goals [35]. The plans, strategies and activities of private business as tourism stakeholders are discussed further in the following section.

Product Development

In order to develop Surabaya as tourism destination, several private businesses have to create new products to attract tourists and accommodate their need during their stays in Surabaya. Tourism products should be created

dynamically as part of the marketing strategy. It means that the products should be able to adapt to the need of the customers [36]. There are various forms of products and services that have been planned and developed by private business in Surabaya, such as tour package, room and meeting package, culinary products for souvenirs and new tourist attractions in the city, such as Suroboyo Night Carnival and Surabaya Heritage Track.

In regard to tour package, House of Sampoerna is one of the private companies managing a museum, art gallery and restaurant as its main attraction for tourists. This company later on organizes a free city tour using a tram-modified bus to take the tourists sightseeing the city, as seen in the following figure [37].



Figure 2. Surabaya Heritage Track

This free bus is called “Surabaya Heritage Track” or SHT since it only goes around the north and central Surabaya, where there are many heritage buildings around [1]. This bus becomes famous in Surabaya, since more tourists are eager to hop on the bus to have the city tour.

Furthermore, accommodation business should offer more services to their guests to make them feel more comfortable during their stays in Surabaya. One example is increasing the services level by not only selling the rooms, but also offerings their place as a venue for conducting many occasion. Many hotels in Surabaya have offered an interesting meeting package for their guests, especially business people. They combine room package with their meeting area in the hotel. Surabaya is also well known as the city of MICE (Meeting Incentive Conference and Exhibition), since there are plenty of venues to hold the small to large scale events. Those offers launched by hotels in Surabaya increase the awareness and the attention from visitors to conduct their event, especially business event in Surabaya.

The tourist attraction operators as one of the important stakeholders in Surabaya tourism also actively develop new attractions for tourists. As stated by the head of FORKOM (Communication Forum of Tourism Object), recently there are around 50 tourism attractions operating in Surabaya and more than half of the members are private business managed by companies and local people. Several companies consistently launch new products to attract tourists. One of the most unique tourism products called the Artama Cruise is launched by Pelindo 3. Using a small and luxurious boat, the tourists can enjoy the view of the sea. As seen in figure 3, the cruise takes only 2-3 hours cruising along the Madura Strait with Suramadu Bridge and the sunset as their main view [38].

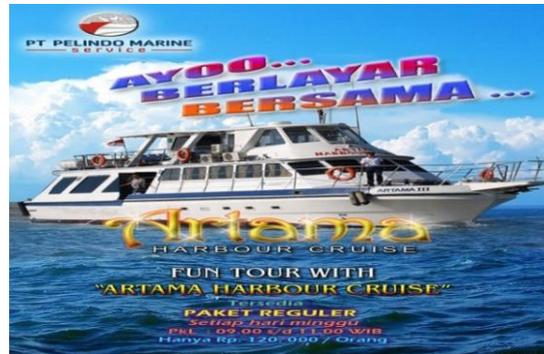


Figure 3. Artama Cruise

Besides creating tour activities, developing attractions, and providing accommodation, several private businesses in Surabaya are also producing culinary products as the souvenirs from Surabaya. The products are in the forms of snack, cookies and cake using Surabaya labels. They are claimed to be the authentic food created to serve the need of Surabaya tourists when they are going back home. The cake such as *Kue Lapis* Surabaya, Surabaya *Patata* and Almond Crispy Surabaya are actually not a local traditional cuisine of Surabaya. However, their existence and their effort of promoting the products have completed Surabaya as tourist city, since many tourists are eager to buy them as souvenirs for their family and relatives back home. The culinary experience is an important part of developing destination, since it creates memory and impression of the tourists [39].

Promotional Activities

All the private businesses dealing with tourism in Surabaya have actively tried to promote Surabaya as tourism destination. Each of the companies makes promotional effort

online and offline to attract tourists. There are several offline activities that have been done to promote Surabaya, such as show, familiarization trip and advertising. Started in 2005, the activities to promote the city as tourism destination were basically in the hand of private business, under the coordination of Surabaya Tourism Promotion Board. The board which consists of the representative of hotels, restaurants, tourist attraction operators, tours and travels were setting up the plan as well as executed the promotional activities of the city.

In promoting the destination, it is important to attract a group of visitors to do tour activities or business trip (MICE) [40]. These two programs involved several parties to work together, such as hotels, travels and the media as the stakeholders. Road show program is a program in which a group of representative goes to other cities in Indonesia and overseas to promote Surabaya tourism. Mostly, they choose the city that has a direct flight to and from Surabaya. Thus, during the road show, the promotional team presents the potentials of Surabaya tourism to the invited guest. This activity is done to increase people awareness about Surabaya as tourism destination. The objectives of the activities are to promote Surabaya to the local tours and travels and to endorse the media to write about Surabaya. The road show is conducted regularly in several big cities in Indonesia, such as Jakarta, Bandung, Makassar, Semarang, Batam and Denpasar. While overseas road show are held in Kuala Lumpur, Manila, Brunei Darussalam and Singapore. The schedule is based on the availability of the assigned team and local invitees of the designated cities.

Furthermore, as a follow-up to the road show program, the tourism private business usually conducts the familiarization trip to promote Surabaya. In the familiarization trip process, firstly STPB invites several travel agents and media from other cities that has a direct flight to and from Surabaya. Then, the board forms a committee consisting of hotels, tours and travels, tourist attraction operators and restaurants to host the invited guests in Surabaya. The duration of the trip is mostly not more than 3 days, depends on the home city of the guests. The trip will last more than 3 days for overseas guests. The purpose of the familiarization trip is to build the experience of visiting Surabaya to the guests. By joining the trip, the invited guests can create business networking and share their experience to other people in their home origin. Moreover,

the invited guests from media are expected to write about Surabaya and publish their writing in their home city to make people there to be informed about Surabaya and eager to visit the city. This activities are done twice a year depends on the schedule set up by board in conjunction with the overseas partners. Improving tourists experience in tourism destination is an important part of developing the destination [41]. It should be done collectively by all the stakeholders involved in the development.

Furthermore, another important promotional activity to develop Surabaya as tourism destination is offline advertising. In this regards, advertising is a part of promotion strategy commonly used by private business. In order to promote Surabaya tourism, several private businesses employ several tools such as leaflet, brochures and billboard. Leaflets and brochures are mostly used to sell their own particular products. Their specific brochures complete the brochures already made by the government. In creating advertising materials, several private businesses have worked together and shared the budget to produce the material. A city may practice cooperative advertising with several business entities to attract more tourists [42]. Besides producing brochures and leaflets, private business in Surabaya also utilize billboard as the media of advertisement. However, since it is considered as an expensive tool, the number of billboard promotion is limited in promoting Surabaya tourism. Most billboards are used to promote their own business. Besides offline advertising, private business in Surabaya also creates an online promotion. In most online promotion, private businesses are not only selling their own products and services, but also promoting Surabaya as tourism destination. Private business in Surabaya is very active in online promotion through website and social media to attract tourists.

Program Initiation

Private business are also working together to initiate several programs in attracting tourists to Surabaya. Those initiations are expected to attract more tourists to visit Surabaya. The programs are varied based on the core business of the company. Private business as the stakeholder creates programs that can promote Surabaya as well as increase their sales. Sales are the most important factor in marketing the tourism destination [23]. There are several program areas, such as retail, health and cultural

events. Those programs are scheduled in different time of the year, combining with the ones conducted by the government, as seen in the following figure.

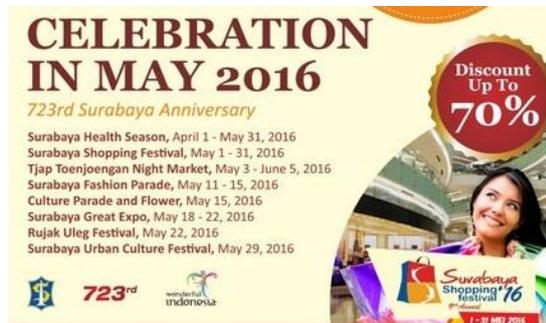


Figure 4. Surabaya Tourism Calendar of Events

The most significant program initiated by private business is the establishment of Surabaya Big Sale or nowadays called Surabaya Shopping Festival. Shopping tourism is becoming important in modern world [43]. In Surabaya Shopping Festival event, many private businesses join the program to offer discount on their products in order to elevate the image of Surabaya as a shopping destination. Most hotels, restaurants and travel agents are also participated in this event. Surabaya Shopping Festival program is initially proposed by hotels in Surabaya in order to give the visitors more reasons to come to Surabaya.

Another event initiated by groups of hotels is Surabaya Health Seasons programs. Groups of hotels, working together with the selected hospitals in Surabaya, initiated this program in 2010. The programs are still running and has been put as one of the routine agendas in Surabaya tourism events until now. Health tourism is increasing over the years and the use of website to promote hospitals or other related health services for the tourism destination development is important [44]. The objective of the program is to promote Surabaya as health tourism destination, especially for the people around Surabaya. This program showcases the capacity of the hospitals and other related health services business in Surabaya. Instead of going out of town or even going overseas, people are expected to stay in Surabaya for medical treatment. Surabaya Health Season or so called SHS program is a part of private business initiatives that have been well accepted by the people and the government of Surabaya.

Private business in Surabaya also initiates several cultural programs to make Surabaya as

tourism destination. Among those cultural programs, the most prominent one is Surabaya Traffic Festival conducted by Suara Surabaya Media. This company is the best radio in Surabaya due to the number of active listeners. The program features many jazz musicians in several days. It was initially set up in 2011 and still existed until now. Jazz music festival has a wide variety of audiences, from younger to older generation. Besides, it can attract sponsors for the events as well [45]. The festival can directly give impact to the tourism destination, since it brings jazz lovers from outside the city to come and stay to enjoy the festival. This musical event become one of the iconic events of Surabaya, and has also been included as the city annual agenda. The program involves hotels, travel agents, and other tourism related business to cater the need of the tourists during the event. The satisfied music festival lovers in the event can create positive impression toward the location as well as increase the city expenditure, especially during the festival [46]. This program has made Surabaya to be more than just a business city. People also come to Surabaya for the music festival.

Event Participation

The role of private business in developing Surabaya as tourism destination is also seen in the active participation of the hotels, travel agents and tourist attraction operators on events conducted by the government either inside or outside Surabaya. Private business always support the programs held by the government as the effort to promote tourism in Surabaya. Several private businesses, especially travel agents and hotels, also actively participate on the international event to promote their products and Surabaya. They also join several international tourism events, such as ITB Berlin and ITB Asia in Singapore. Their participation in international event without getting special incentives from the government show the great commitment and contribution of private business toward tourism development in Indonesia, especially Surabaya. Joining the events is not only useful to promote their own business, but their presence also represents the city. Participation on the tourism events is important to draw attention to Surabaya for the prospective tourists. Therefore, during the travel fair, the intense time may create distinguished quality of the products for the consumers [47]. That is the reason why travel

fair has significant impact on advertising the tourism destination.



Figure 5. Majapahit Travel Fair Supported by Private Business in Surabaya

Besides becoming the participant on the event held by other countries, Surabaya has an annual travel fair agenda called Majapahit Travel Fair [48]. Though the organizer is the Provincial Government of East Java, the participants and the supporters are mostly from private business located in Surabaya. Those who have tourism and hospitality services as their core business are the ones who are actively involved in this occasion, which is usually held around April – May every year. In 2016, there were around 118 buyers from 16 countries who came to Majapahit Travel Fair to meet merchants from Indonesia, especially Surabaya. Majapahit Travel Fair is the biggest travel fair in Eastern part of Indonesia which is supported fully by hotels and travel agents in Surabaya, from the preparation until execution phases. As the stakeholder of tourism, everybody gets involved in the process of the travel fair. The role of private business seems to be dominant in the process, since their participations are one of the success factor keys of the event.

Furthermore, the role of private business as stakeholder in tourism destination development in Surabaya is also seen from their support toward the government agenda. In 2016, Surabaya was hosting several global events. The major international event in Surabaya was Preparatory Committee (Prep Comm) 3 Habitat, by United Nation Event. At this occasion, Surabaya was visited by more than 4.400 guests from 167 countries at the same time [49]. The readiness of the accommodation, food, transportation and attraction providers to serve the guests had proven the ability and the capacity of private tourism business in Surabaya.

This event was considered successful and had officially put Surabaya as one of International MICE cities in the region. The government as the host would not be successful without the full support from private business in Surabaya. In this event, private business accommodated the need of visitors, as they also aimed to gain business profit. However, their active roles in supporting the city agenda are also making the destination become more attractive and reliable for tourists, especially in accommodation, attraction and transportation facilities. The consistency of support and the commitment from private business are the key factors to develop Surabaya as tourism destination.

CONCLUSION

Private businesses consisting of hotels, travel agents, restaurants and tourist attraction operators have an important role to develop the tourism destination. The role of private business in developing tourism destination in Surabaya is reflected in the ways hotels, travels agents, restaurants and tourist attraction operators working together to attract and host tourists. Private businesses in Surabaya have been very active in developing new products in their services, such as launching free bus for city tour in the heritage areas and operating sunset dinner cruise along Madura strait. The effort of private business is also shown through their initiatives in setting up several programs that can attract more tourists. The launch of Surabaya Great Sale in 2006, which later became Surabaya Shopping Festival in 2008 until recent years, had contributed great revenues to the city directly and indirectly. Thus, the launching of Surabaya Health Season in 2010 to promote health tourism in Surabaya had shown that the city was developing in many ways to become a tourism destination. The music festival called The Jazz Traffic which was started in 2011 had completed Surabaya as an urban tourism destination in Indonesia.

Working together to develop tourism destination among private business in Surabaya has been done in the formal setting as well as informal one. Tourism destination development in Surabaya succeeds because of the strong commitment of private business in working together to promote the city. In certain occasion, the private businesses are serving not only as actor but also the director of the tourism development in Surabaya. Consistent collaboration and strong commitments are the

keys for private business to support tourism destination development.

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Factors Influencing Motivation of the Tourism Actors in the Pulau Merah Banyuwangi, East Java, Indonesia

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Abstract

The research aimed to identify the motivation of tourism actors and to analyze the factors influencing the motivation in Pulau Merah tourism area, Banyuwangi Regency. The object of the research is 61 business actors, consisting of homestay, souvenir shops, cafe, umbrella rental services, and travel operators. Respondents were selected using Stratified Random Sampling. Data were collected through interviews with questionnaires, and completed with secondary data from local villages. Data were analyzed with descriptive analysis and Multiple Linear Regression. The results showed that the motivation of business actors was in the high category with the score of 80.9%. The actors' source of motivation to do business is derived from business benefits of 91.2%, family or friends as high as 77.4%, ideas and abilities as much as 83.3%, and confidence to advance as much as 85.3%. The result of Multiple Regression Analysis showed that motivation is significantly influenced by encouragement, action and satisfaction factors, each with a regression coefficient of 0.310, 0.218 and 0.265, respectively. While the needs factor has no significant effect on motivation.

Keywords: Banyuwangi, motivation, Pulau Merah, social capital, tourism.

INTRODUCTION

Local governments start trying to develop and fix up their tourist destinations to attract either local or foreign tourists. Tourism sector has been given a priority in the local development which is expected to be able to give positive impacts on the improvement of the economy in the local area [1].

Banyuwangi is one of the most attractive tourism destination in East Java. Banyuwangi has abundance natural and cultural resources, in which many of them are rarely found in other place in the world. Banyuwangi has outstanding landscape, rich biodiversity and unique culture. These resources is principal component for the development of tourism industry [2].

Banyuwangi once obtained a rewards from United Nations World Tourism Organization (UNWTO) as The Winner of Re-inventing Government in Tourism for the category of Awards for Innovation in Public Policy Governance [3]. The contest that has been made since 2003 includes 153 countries and 350 members of the affiliation from all over the world. The activity was conducted in Madrid-Spain at January 20th, 2016.

One of the tourism destinations possessed by Banyuwangi Regency is marine tourist object,

Pulau Merah in Pesanggrahan Sub-district. This island has started to be popular since 2013, when the government of Banyuwangi regency held an International Surfing Competi-tion followed by 20 countries.

The Pulau Merah tourism area is located in an area under the authority of Indonesia State owned Forest Enterprise (Perum Perhutani) in the residential environment of Pancer Hamlet, Banyuwangi. Therefore, the development of this destination is made under the cooperation of the government of Banyuwangi Regency and the Perum Perhutani with the sustainable tourism vision [4,5].

The development of Pulau Merah provides positive impacts on the socio-economic conditions of the community around this tourism object. The tourism actors gives various activities of tourist services such as food and beverage, home stay/accommodation, and other equipments. They gain experiences in tourism business, interact with visitors and also enjoy incomes. Moreover, they also recreate and innovate to give high-quality services to the visitors.

The tourism actors also have certain motivations in working on their business. The concept of motivation has been much expressed, it can be explained through need, encouragement, action and satisfaction [6]. The motivation come from internal and external factors. There is a psychological need to motivate oneself [7]. Motivation makes the tourism actors in Pulau

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Merah to be more creative to manage and develop their business.

Motivation emerges through push and pull factors. The higher the motivation, the higher the chance to attain the desired goals will be [8]. Incomes, opportunities, recognition or rewards, and security are sources of motivation [9]. Incomes become an important motivation of tourism actors [10]. Other sources of motivation are experiences, education and interactions with others [11]. Education becomes the source of one's motivation to work [12]. Interest in work also becomes the source of motivation besides wage and career path factors [13].

The actors of tourism want their business to progress and develop. They cooperate or compete with each other to give the best services and to develop their social capitals in the tourism services [14]. Study on the motivation of tourism business actor in Pulau Merah has not much been revealed. By understanding the motivation, the tourism potentials could be explored and further developed to build the local tourism objects and improve regional economic development. The objective of this research were to identify motivation and analyze factors influencing motivation of tourism actors in Pulau Merah, Banyuwangi.

MATERIALS AND METHOD

Data Collection

This research was conducted in the tourism location in Pulau Merah, Banyuwangi Regency. Surveys and interviews were conducted on five types of local tourism SME, i.e. owners of home stay, souvenir shops, and providers of umbrella rental services, food stalls, and peddlers (Table 1). A stratified random sampling was employed where 30% of the population in the groups of business actors were chosen. Secondary data were obtained from the village demography data and tourism actors.

Table 1. Tourism Actors in Pulau Merah Banyuwangi

Type of Business	Population (person)	Sample (person)
Homestay	40	12
Souvenir shop	4	4
Umbrella rental services	15	4
Food stall owners	126	35
Peddlers	20	6
Total	205	61

Data Analysis

A descriptive and regressive analysis was employed. Descriptive analysis of the data score [15] was made to identify motivation, needs,

encouragement, action and satisfaction. The data were processed in the Likert Scale and were classified. Multiple regression analysis was made to study the factors influencing the motivation. The formula is as follows:

$$Y' = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

Description:

- Y' : Motivation Variable
- a : Constant
- b₁ : regression coefficient of need
- b₂ : regression coefficient of encouragement
- b₃ : regression coefficient of action
- b₄ : regression coefficient of satisfaction
- X₁ : need variable
- X₂ : encouragement variable
- X₃ : action variable
- X₄ : satisfaction variable
- e : error

RESULTS AND DISCUSSION

General Description of the Area

Pulau Merah administratively located in Sumberagung Village, Pesanggrahan Sub-district, Banyuwangi Regency at coordinate of 114°26' - 114°35' E and 08°23' - 08°37' S. The area of Pesanggrahan Sub-district is ± 80.36 m², consisted of five villages, namely Sumbermulyo, Pesanggrahan, Sumberagung, Sarongan and Kandangan. The widest area is Sarongan Village with 47.04 km² area, while the smallest one is Pesanggrahan Village with 2.63 km² area (Fig. 1).

Sumberagung Village consists of four hamlets, namely Pancer, Rejoagung, Silirbaru, and Sungai Lembu, with the area of 6.99 km², the altitude of 25 m asl. According to statistics in Pesanggrahan Sub-district in the year of 2016, the population number of Sumberagung Village is 13912 persons where the male population is 7038, while the female 6874 persons [16]. The majority of the population (more than 60%) live their life by cultivating crops and *Palawija* or secondary crops (Table 2). The service sector especially also develops to support the tourism in Pulau Merah.

Sumberagung Village has potential region for agricultural sector. Paddy is planted in the area of 672 ha with productivity of 7.76 ton per ha. While the productivity of corn and soybean is 6.08 and 1.33 ton per ha, respectively. Peanut is merely planted in a small amount (Table 3).

Tourism in Pulau Merah

Historically, this region is called Pulau Merah (or Red Island) since the content of the land and rock is reddish in color. In the morning, the fall of the sunshine on the rocks and land in the small island in the middle of the beach reflects reddish light from the coastal region.



Figure 1. Map of Sumberagung Village (Source: googlemap, 2017)

Table 2. Labor Force in Sumberagung Village [15]

No	Job	Number (person)
1	Crops and <i>Palawija</i> (secondary crops)	5913
2	Horticulture	89
3	Plantation	570
4	Fishery	712
5	Animal Husbandry	17
6	Forestry and other agriculture	11
7	Mining and digging	173
8	Industry	169
9	Construction	56
10	Trading	650
11	Hotels and Restaurants	12
12	Transportation and warehousing	90
13	Information and communication	8
14	Finance and Insurance	21
15	Education services	103
16	Health services	21
17	Social services	261
18	Others	84
Total		8960

Table 3. Commodity of Crops in Sumberagung Village [15]

Crops Commodity	Area (ha)	Harvest (ton)	Production (ton)	Productivity (ton/ha)
Rice	672	5217	7.764	
Corn	652	3962	6.076	
Soybean	735	1334	1.815	
Peanuts	6	8	1.345	
Total	2,065	10,521	-	

The hamlets in *Pulau Merah* was opened in 1967, pioneered by ex-army of the Republic of Indonesia, namely Kapi, Slamet, Mulyani, dan Lasmidi. They are ex-combatants who together with the people developed the area of Sumberagung Village which at that time was in the form of forest land up to the coastal region. Over time, the people's livelihood changed into fishery sector since the sea in this area is rich in fishes, lobsters and other sea biota to fulfill the need of the people in other area.

Then, *Pulau Merah* becomes a natural tourist object, therefore, a better management is needed. *Pulau Merah* is one of tourist destinations in the Tourism Development Area (TDA) III Sukamade. This island is located in the forest area managed by Perum Perhutani. At present, *Pulau Merah* tourism is managed on the cooperation agreement between Perhutani and *Pulau Merah* Forest Tourism Development in the area of the protected forest, Plot 70m with the area of 3.46 ha of Forest Management Plan (FMP) and Plot 75m with the area of 3.40 ha (FMP Silirbaru), within Coordinating Body for Forest Management (CBFM) Sukamade.

The location of *Pulau Merah* tourism object is 60 km to the south of Banyuwangi city that can be reached through Rogojampi, Srono, Jajag, Kesilir and Pesangrahan. It needs about 2.5 hours using cars to reach it. Tourists can use public transport services from the bus station in Banyuwangi. Then, after getting off the public transport, motorcycle (*ojek*) services can be used to come to the object.

The scenery in *Pulau Merah* is very beautiful. This beautiful scenery can be enjoyed when the sun sets where greenish orange sky among the hills is clearly seen. This situation is complemented with white and clean sands, natural mangrove vegetation, and strong waves from the Indian Ocean. Waves roll with 3 m long and 4 m high become a very interesting spot for surfers.

In 2013, an International Surfing Competition with participants from 20 countries was held in *Pulau Merah*. This competition has become an annual agenda in the Banyuwangi Festival calendar.

Some facilities in *Pulau Merah* are provided such as wide parking area, home stay in the coastal region, and some food stalls to relax to

enjoy the sightseeing in the Pulau Merah coast. May to December are proper months to enjoy the beauty of the coast in the area [17].

Pulau Merah tourist object becomes popular among the people. The services provided improve in terms of number and varieties. A wide and cool parking place is shadowed with mangrove trees. New businesses are growing, covering umbrella rental services, food and beverages and also games.

Motivation of Tourism Services Actors

Description of the motivation of the actors in the tourism services in general was included into high category (score of 8.9), from the four questions on motivation (Table 4), namely benefits of services, seriousness in business, and the influence of friends and incomes.

Motivation from the perception of the benefits of tourism services showed the score of 91.2, a very high criteria. Most respondents answered very agree (56%), and agree (44%). The indicator of perception of the benefits gave the highest score than other indicators.

Dealing with indicator of seriousness in business, the answers were as follows: very agree (57%), agree (39%) and neutral (4%). These answers are similar with those of the perception of motivation from the incomes, namely very agree (21%), agree (69%) and neutral (10%). Meanwhile motivation coming from the influence (or imitation) from others showed the lowest score, even no respondent gave a very agree answer.

In general, the greatest motivation is from the benefits of the tourism services, followed by the seriousness in business, incomes, and the influence from friends, namely 91.2%, 90.8%, 79.7% and 61.97%, respectively. The first three indicators were considered as internal motivation, while the rest, external factors. From the

number, internal factors seem to give stronger influences than external factors. Internal motivation influence the mechanism of one's psychological need to motivate his performance to attain his purpose of life [7].

Factors Influencing Motivation

The estimation of factors that influencing motivation are presented in Table 5. In general, the estimation resulted in a significant regression, at least one variable influenced motivation (t_{count} 2.793 is higher than t_{table} 1.672), using the following equation:

$$Y = 1.552 - 0.108X_1 + 0.310X_2 + 0.218X_3 + 0.265X_4$$

Table 5 show that encouragement, action and satisfaction factors significantly and positively influenced motivation, each with the coefficient of 0.310, 0.218 and 0.265, respectively. Meanwhile, the need variable did not give any significant influence on motivation, with the coefficient of -0.108 with the *p-value* of 0.283.

A question dealing with need consisted of three indicators namely, need, incomes, and socialization. The three indicators cannot significantly contribute to motivation, although the context of the three is relatively known in terms of motivation. This phenomenon shows that the might some bias in perception among respondents to the question.

Encouragement factor (X₂) showed a significant and positive influence to motivation of tourism actors. Indicators dealing with encouragement cover the influence from family/friends, consumers, influence from fellow tourism actors and appreciation from the public. The indicators show external factors.

From the results of the score calculation, it is known that the strongest indicator is presented by the encouragement from the family or friends namely 77.38%, followed by appreciation from

Table 4. Motivation of Pulau Merah Tourism Actors

No	Indicator of Motivation	Frequency of Score					Actual Score	Ideal Score	Percent	Criteria
		VA	A	N	DA	VDA				
1	Giving benefits to life.	34	27	0	0	0	278	305	91.18	Very High
2	Seriousness in business	35	24	2	0	0	277	305	90.82	Very High
3	Following and imitating others in developing business	0	19	33	5	4	189	305	61.97	Moderate
4	Incomes from Tourism Services	13	42	2	0	4	243	305	79.67	High
Average		20.5	28	9,25	1.25	2	246.75	305	80.91	High

Sources: Research Result

Note: VA= Very agree, score 5; A=Agree, score 4; N=Neutral, score 3; DA=Disagree, score 2; VDA= Very disagree, score 1;

- Actual score is obtained from the addition of the frequency score multiplied with answer score
- Ideal score is obtained from the number of respondents (=61) multiplied with answer score of very disagree (=5)
- Percent is obtained from the actual score divided by the ideal score
- Criteria of the scores of respondents' answers (i) 20.00 – 36.00 Not High, (ii) 36.01 – 52.00 Less High, (iii) 52.01 – 68.00 Moderate, (iv) 68.01 – 84.00 High and (v) 84.01 – 100.00 Very High

Table 5. Estimation of Motivation

No	Estimator	coefficient	p-value
1	Need (X ₁)	-0.108	0.283
2	Encouragement (X ₂)	0.310	0.016
3	Action (X ₃)	0.218	0.002
4	Satisfaction (X ₄)	0.265	0.006

Note: p-value = 0.05

the public, 73.77%, then the influence of consumers and help from fellow tourism actors, 67.54% (Table 6). Encouragement from others gave two motivations, namely primary motive or motive which is not learned and secondary motive or motive which is learned. The motives are built from experiences and interaction from other people [11].

Action Factor (X₃) showed a significant and positive influence to motivation. The strongest indicator in action is shown by the ability of idea of 83.28%, followed by the indicator of imitating or following other tourism actors of 73.44 %, and the guidance and training by the manager of Pulau Merah tourism of 71.48% (Table 6).

Action variable is real action made by someone to attain a certain goal. Tourism actors shows real performance as part to motivate their lives. This ability to act is also influenced by experiences, education and also interaction with others [11]. Education is one of a worker's motivations in developing his role in organization [10].

Satisfaction (X₄) showed a positive and significant influence. Satisfaction is the feeling of happiness or pleasing in an environment since all needs are adequately met. Satisfaction in this present research is shown through indicators of income, facility, security, additional know-ledge, and better and management (Table 6). This motivation is also in line with previous study [9] on the Palace Tourism object, in Siak Regency, Riau province.

The management of Pulau Merah tourism has been growing and getting crowded during the last five year. The organization of the management is able to formulate job descriptions and authorities in order to give satisfactory services. Its structure is developing, following the functions of services. Facilities and tourist accommodation improve such as souvenirs, water sport or other facilities. The management also has paid attention to the security aspect of the visitors.

Better management also gave effects on the increase of the visitors. The tourism actors were intensively interacted with the visitors through

better services, and giving additional experiences a knowledge. These positive things can give impacts on the improvement of the tourism actors' incomes (*money follow function*) [10].

Table 6. Indicator of Motivation Factor

No	Indicator	%	Criteria
Need			
1	Meet the need	85.90	Very High
2	Improving income	88.5	Very
3	Socialization	79.02	High
Average		84.59	Very High
Encouragement			
1	Family or friend	77.38	High
2	Number of consumers	70.82	High
3	Help from fellow traders	67.54	Moderate
4	Appreciation of the public	73.77	High
Average		72.38	High
Action			
1	Idea and ability	83.28	High
2	Imitating or following friends	73.44	High
3	Guidance and training	71.48	High
Average		76.07	High
Satisfaction			
1	Income obtained	73.77	High
2	Facilities provided	64.26	Moderate
3	Assurance of security	74.10	High
4	Additional knowledge	79.34	High
5	Better management	85.25	Very High
Average		75.34	High

Implication on Social Capital

The results showed that factors influencing motivation can be implemented in the development of tourism management. Indicators in the encouragement, action and satisfaction factors should be developed to produce social capital.

Encouragement indicators, such as help from the fellow tourism actors or appreciation from the public and action indicators, such as guidance and training, are external factors that should be coordinated and developed. It should be reinforced by internal factors in the action indicators, for instance, ideas or creativities, or additional knowledge obtained by tourism actors (satisfaction indicator). The combination between external and internal factors should be in line with its improvement and development.

Tourism actors should be empowered, thus they would keep developing and growing. They need to be assisted by NGOs, academicians or the local government in terms of a well-planned sustainable conservation and tourism services programs [3,5]. Pulau Merah tourism object needs the touch of the education, innovation, promotion, cooperation and research [6]. These efforts need the management of tourism services and also the construction of social capital in Pulau Merah [5,14], covering:(i) development of

trust between the actors and other stakeholders; (ii) improvement of real relation and cooperation; (iii) development of mechanism of institutional (organizational) rules to anticipate the increase of tourism services; and (iv) development of participation so that all stakeholders actively give their roles.

Social capital reinforcement is increasingly more relevant since Pulau Merah tourism encounter two things that threaten the environmental conservation. First, the increasing number of visitors potentially create mass tourism. Second, pollution potentially come from gold mining since the location of the mining is near the tourism location.

Implications of the improvement on motivation among the tourism services actors that need support, are: (i) better management of tourism organization; (ii) guidance management, especially technology from the NGOs or government; (iii) cooperation among the tourism actors to improve knowledge and skills; and (iv) developing of creativities of ideas or innovations of tourism services.

CONCLUSION

Actors' motivation in Pulau Merah tourism was in high category (score 80.0). The greatest motivation gained from the indicator of benefits from tourism services, followed by seriousness in business, income, and influence from friends, each with the score of 91.2, 90.8, 79.7 and 61.97 percent, respectively. Encouragement, action and satisfaction have significant positive effects on motivation, each with the coefficient of 0.310, 0.218 and 0.265, respectively. Meanwhile, the need variable did not have any significant effect on motivation.

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MANUSCRIPT SUBMISSION

FOCUS AND SCOPE

Competitiveness of destinations, products and Indonesian tourism business; Diversification of tourism products; Incentive system of business and investment in tourism; Information, promotion and communication in tourism; Tourism supporting infrastructure; Security and convenience in tourism; Tourism policy; Unique tourism community life (living culture); Local knowledge, traditions, and cultural diversity; Diversity and attractions in ecotourism; Diversity of natural attractions in ecotourism; Pluralistic diversity of ecotourism society; Diversity of ecotourism activities; Hospitality of the local resident; The quality of tourism services; Quality of HR in tourism (Standard, accreditation and competence certification); The market share of tourism and integrated marketing system; Package of tourism attraction; Development of tourism regions; Community based Eco-Tourism.

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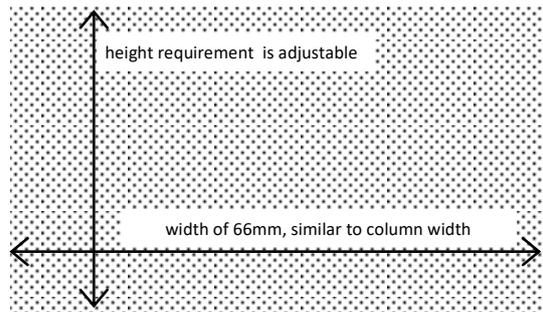


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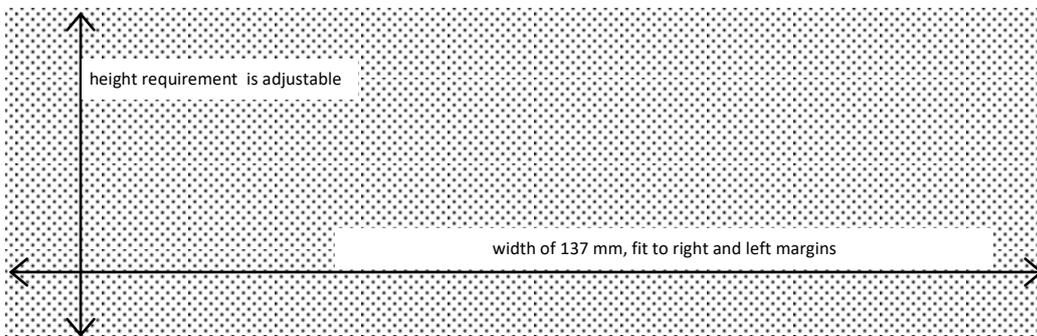


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