

Digital based Coastal Tourism Development in Revolution 4.0 Era: Study on Kampung Nipah Serdang Bedagai

Arief Marizki Purba, Onan Marakali Siregar and Fernanda Putra Adela
Faculty of Political and Social Science, Universitas Sumatera Utara

Keywords: Tourism Development, Digitalization, Ecotourism, Industrial Revolution 4.0.

Abstract: Tourism is one of the development sectors that is currently being promoted by the central government because the potential for foreign exchange generated is very large. The number of tourist arrivals to North Sumatra in 2016 was 233,643, then in 2017 it was 261,736 while in 2018 it was 275,394 visits (BPS Data 2018). One of the potential coastal areas is the Mangrove Coast Village in Kampung Nipah in the Regency Serdang Bedagai. Which is also the east coast region of North Sumatra, has the majority of livelihoods as fishermen who started operations in 2012. This area is managed through strengthening social capital through Muara Baimbai Multipurpose Cooperative. The problem so far, the tourism potential in Kampung Nipah is unknown to many people. This is due to the lack of information related to the ecotourism area. Making the number of visits continue to decline in the last 3 years due to the lack of digital promotions. In the era of the industrial revolution 4.0 as it is today that puts forward the components of big data, internet things (fast internet) and cloud computing (data storage in the cloud) which all matters related to tourism are massively promoted through the internet.

1 INTRODUCTION

Tourism is one of the development sectors that is currently being promoted by the central government because the potential for foreign exchange generated is very large. Where according to 2019 Ministry of Tourism data the tourism industry generated foreign exchange of 15 billion US dollars in 2016, then 13.5 billion US dollars in 2017 and 17 billion US dollars in 2018 with the number of foreign tourists visiting 1,510,764 foreign tourist visits (Anggraini, 2019).

Meanwhile, for the Province of North Sumatra which has beautiful nature, culture, crafts, culinary, and recreation is very potential for tourists, both local and foreign tourists. This can be proven from the number of tourist visits which has increased from year to year coming to North Sumatra. The number of tourist arrivals to North Sumatra in 2016 was 233,643, then in 2017 it was 261,736 visits while in 2018 it was 275,394 visits (BPS, 2018).

Potential areas in North Sumatra are spread in mountains, cities, forests and coastal areas. One of the potential coastal areas is Kampung Nipah Mangrove Coast in Serdang Bedagai Regency, North Sumatra Province which is also an area of the East Coast of North Sumatra with the majority of

livelihoods as fishermen who began operating in 2012. This area is managed through strengthening social capital through a cooperative unit named Multipurpose Business Cooperative (KSU) Muara Baimbai.

Empirically, the people of Sei Nagalawan Village *social capital* have very strong. This is evidenced by social ties and strong social solidarity as an important buffer of development and community activities through self-help. Self-help and mutual cooperation became the main buffer of the village in developing the ecotourism area of Kampung Nipah (Natadjaja, 2012). The uniqueness of this tourism area is the management of mangrove forests in an orderly, sustainable and beautiful area. As well as food and beverage products made from raw mangroves such as mangrove chips, mangrove syrup and dodol mangrove sold near the beach which we rarely find in other tourism areas (Hasan, 2015).

The problem so far, the tourism potential in Kampung Nipah is unknown to many people. This is due to the lack of information related to the ecotourism area, making the number of visits continue to decline in the last 3 years due to the lack of digital promotions (Oliveira, 2014). What's more,

in the era of the Industrial Revolution 4.0 as it is today that puts forward the components of *big data*, *internet things* (fast internet) and *cloud computing* (data storage in the cloud) which all matters related to tourism are massively promoted through the internet.

The reason is that information regarding plural tourist commodities is found on social media. These commodities are facilities that are produced and distributed between tourism sector entrepreneurs and tourists (Purwanto, 2003). From this activity and tourism business manager travelers form a network that ultimately consciously or not boils down to the networking of public institutions (*network society*) to the development of tourism itself (Nasrullah, 2015).

The use of technology in the development of tourism in various parts of the world including in Indonesia itself is being popularly developed through *ICT (Information and Communication Technology)* (Kapllani, 2017). Its development is used as a tourism information media related to aviation, lodging, food, transportation to handicrafts that have been marketed through digital applications based *online* (Yulianto, 2015). This means that natural beauty without the support of good marketing certainly will not be maximized (Maria, 2016).

Moreover, the fierce tourism business competition due to different management, both with large capital entrepreneurs, medium capital and small capital makes each region must have its own uniqueness (Wulandari, Polla, and Novita, 2016). This is important so that the tourism industry has a competitive advantage, both related to the quality of service, cleanliness, type of food and beverage, the quality of lodging to the preservation of nature through wider promotional media through digital. This means that the progress of the Mangrove Coast tourism area of Kampung Nipah must have a wider impact, not only to increase Local Revenue (PAD) but also related to the welfare of the community itself.

Therefore, the progress of the tourism sector will also encourage products of micro, small and medium enterprises (UMKM) in the region. Therefore, the study entitled *Digital-Based Coastal Tourism Development in the Industrial Revolution Era 4.0 (Study on Kampung Nipah, Sei Nagalawan Village, Serdang Bedagai Regency)* is important to be carried out in the context of the advancement of Kampung Nipah tourism.

2 METHOD

This research is a qualitative research with a positivism paradigm. Researchers collected data by interview and observation methods as primary data. Then secondary data from international journals, national journals, books, documents and press releases. The collection of research data is then carried out through a review of documents or reports relating to the focus of research relating to tourism, digitalization and the industrial revolution 4.0.

3 RESULTS

3.1 Potential of Nipah Village

The people of Sei Nagalawan Village in Perbaungan Sub-District, North Sumatra Regency or Nipah Village have experienced the difficulty of fishermen's life, when mangroves on the coast of Sei Nagalawan Village, Serdang Bedagai Regency, North Sumatra Province were completely exhausted for development. The success of the Soeharto government concept to open tiger shrimp farms along the East Coast coast of North Sumatra in the mid 1980s left no choice but to carry out the new order program.

The impact was felt by fisherman Sei Nagalawan for two decades. In addition to the threat of sea abrasion that has approached the homes of fishermen due to no more mangroves that hold waves of sea water. Also the catch of shrimps and crabs, which become the destination of fishermen, is getting smaller due to the mangrove crisis. Because, the best place for shrimp and crabs to breed is mangroves. Little mangrove also contains shrimp and crabs produced from the area, and vice versa (Natadjaja, 2012).

This yearning finally aroused the hearts of some Sei Nagalawan Village fishermen so that the narrative about sustainable mangroves is not just a legend. In 2005, Fishermen then tried to make this happen by planting mangroves independently along the coast of Sei Nagalawan Village which is also the East Coast region of North Sumatra. The fishermen were not whiny, nor begging for government assistance. Walking forward, standing tall even though alone.

While planting mangroves, the wives of fishermen also develop traditional snack products. This development they pioneered from 2004-2009 independently. Seeing the growing business, arises

the desire of the people of Sei Nagalawan Village to be able to escape from the problems of poverty they have experienced so far. Apart from the trap of middlemen whose relationship is very exploitative socio-economically and out of debt bondage to the *tauke* whose interest is very large reaches 20-30%.

According to Ahmad Yani the deputy chairman of the KSU Muara Baimbai;

"The choice was in 2012, fishermen Sei Nagalawan founded a cooperative called the Muara Baimbai Multipurpose Cooperative (KSU) whose idea and activity was to manage an educational and mangrove-based tourist attraction called Kampung Nipah. The response from visitors was very good for the ideas and creativity of fishermen."

For 5 years the mangrove-based ecotourism area has been running. Now, fishermen from Sei Nagalawan Village feel the effects themselves. They have escaped the debt bondage to *theuke*, already have an independent business. The price of admission (HTM) to Nipah Village is priced at Rp 10.000,-/person, while a coconut is valued Rp 10.000,-. Then visitors can also enjoy grilled fish, fresh shrimp (fried, sweet/sour soup) for Rp 10.000,-/ounce, fresh crab (sweet / sour soup) for Rp 8.000,-/ounce, and also black coffee for Rp 8.000,-/cup.

While for purposes *prewedding* there is a package provided by the manager of Nipah village, the price is 200 thousand / package. Do not forget for tourists who want to hear directly the tour guide for mangrove education and planting priced at 100 thousand per person. Of course the most unique things in Kampung Nipah are also sold traditional food without preservatives made from mangrove raw materials such as; nipah chips, jeruju tea, dodol and syrup which cost 10 thousand each. The manager of Nipah village also provides a place of prayer, lodges and *homestays* for tourists who want to stay at Kampung Nipah.

The community is able to build trust, social networks and cohesiveness between them. Moreover they are also able to unite different ideas and perspectives. Because, in Kampung Nipah itself, including plural with three major tribes; Javanese, Malay and Banjar. They are able to show to many people that the hope of escaping poverty can be realized immediately if done sincerely, sincerely and consistently.

3.2 Impacts of Ecotourism

In the concept of ecotourism, varied market tastes also become an obstacle for small industries to

develop even though they have extraordinary potential if developed. Limited insight in developing this industry is sometimes unable to answer problems that occur. Because, business actors are confined by understanding a product. Yet if we look closely, there are many factors that cause a product to be underdeveloped, lack of promotion, rejected by the market, unsold, easily damaged / mushroomed or easily destroyed. This often happens for snack food home industries in rural areas.

In various studies the local economy, should not be forgotten is the condition of social capital (*social capital*) rural communities that are already very strong. Village communities have a variety of strong social ties and social solidarity, as an important buffer of government, development and community activities (Dolnicar, 2017). Self-help and mutual assistance have proven to be the main buffer of the village. Although on the one hand, the wealth of social capital is inversely proportional to economic capital. Rural community social capital consists of social ties (*social bonding*), social bridge (*social bridging*), and social networking (*social linking*).

Of these three aspects, parochial (limited) village community social ties are the most superficial social capital that is unable to facilitate economic development, realize socially empowered villages, and have local democracy. To free the limited social bonds (social bonding) it is necessary there is an independence movement of the village community (Omara and Purnamasari, 2008). The development of the village economy through the home industry can be increased through the development of the potential of the village economy independently and in a participatory manner. Moreover, the region has extraordinary uniqueness. For example the region is a tourism area and has tremendous potential in easy marketing, product characteristics and product health insurance (related to preservatives).

This condition occurs in the tourism area of Kampung Nipah which is overgrown with mangroves. Mangroves are tree species found along coastlines in the tropics, and support various ecosystem services, including fisheries production and nutrient cycling. Kampung Nipah is located in the village of Sei Nagalawan, Serdang Bedagai Regency, North Sumatra Province which is also an area of the East Coast of North Sumatra, the majority of whom make a living as fishermen which is also a tourism area. Where Kampung Nipah Sei Nagalawan area is managed by fisherman Sei Nagalawan Hamlet III.

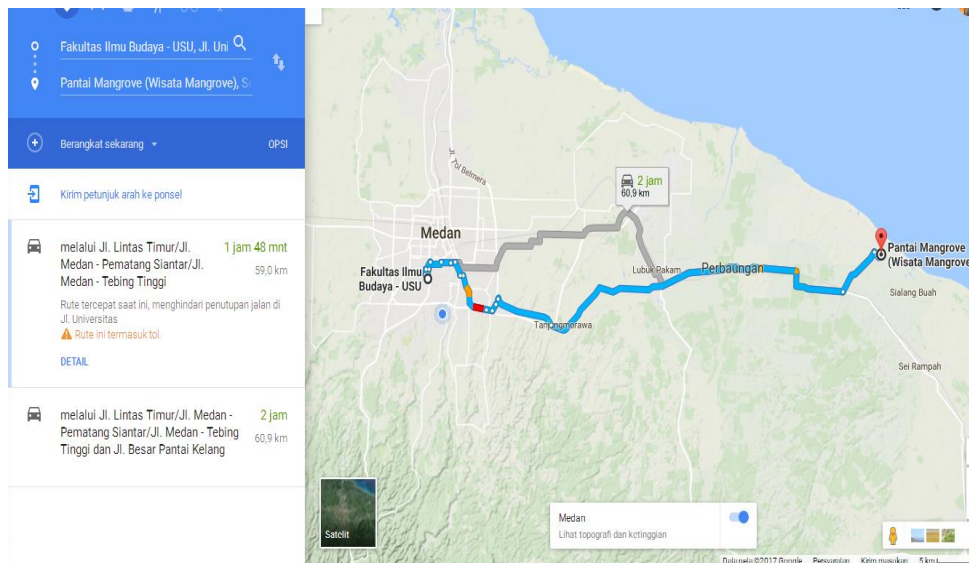


Figure 1: Location map to kampung nipah mangrove beach.



Figure 2: Beach mangrove Kampung Nipah (personal documentation).

Located 60 km from the city of Medan, with a long journey of approximately 2 hours to the tourism area of Kampung Nipah. The wives of fishermen in the village of Sei Nagalawan, especially Hamlet III, developed the light food industry as a solution to solving their household needs. Because, being a fisherman's wife by simply hoping for the husband's catch is sometimes not enough and speculative depending on natural conditions and weather.

Sometimes, if their husbands catch a small amount, the fishermen of Sei Nagalawan Village must owe it to the employer a result, if you already owe it to the *tauke*, the relationship between the fisherman and the *tauke* becomes economically and

socially exploitative, which results in an extraordinary dependency. This is also one of the reasons why structural poverty often occurs in coastal areas.

In an effort to overcome the poverty of fishermen in Sei Nagalawan Village through the Muara Baimbai Multipurpose Cooperative (KSU) managing education-based tourism objects and mangrove forests called Kampung Nipah . The development of Muara Baimbai KSU has significantly progressed in the development of Kampung Nipah.

Furthermore, territorially the Kampung Nipah Tourism area is located in Perbaungan District

which is one of the villages in 26 villages and 2 villages. Sei Nagalawan's population in 2015 was 3010 people. The number of women reaches 1520 while the number of men is only 1490. Where Kampung Nipah is located in hamlet III Sei Nagalawan Village, whose livelihood is the majority of fishermen. There are 167 fishermen in Hamlet III Sei Nagalawan. But those who entered the Sei Nagalawan Multipurpose Cooperative (KSU) numbered 74 fishermen out of 41 families.

3.3 Development of Digital-based Ecotourism

The problem so far is the number of visits of local and foreign tourists continues to decline. This is due to the potential of tourism in Kampung Nipah not known to many people due to the lack of promotion using social media. What's more, in the era of the Industrial Revolution 4.0 as it is today that puts forward the components of *big data*, *internet things* (fast internet) and *cloud computing* (data storage in the cloud) which all matters related to tourism are massively promoted through the internet.

The reason is that information regarding plural tourist commodities is found on social media. These commodities are facilities that are produced and distributed between tourism sector entrepreneurs and tourists (Purwanto, 2003). From this activity tourism business managers and tourists form a network that ultimately consciously or does not lead to networked society institutions (*network society*) to the development of tourism itself (Nasrullah, 2015). The use of technology in the development of tourism in various parts of the world including in Indonesia itself is being popularly developed through *ICT (Information and Communication Technology)*. Its development is used as a tourism information media related to aviation, lodging, food, transportation to handicrafts that have been marketed through digital applications based *online* (Yulianto, 2015). This means that the beauty of nature without the support of good marketing certainly will not be the maximum result.

4 CONCLUSION

Marketing communication of the ecotourism area of Kampung Nipah Sei Nagalawan Village is an attempt to convey a message to the public especially consumers about the existence of a tourism situation. The marketing communication of the ecotourism area of Kampung Nipah, Sei Nagalawan Village

through social media is the road used to explain the flow of information about products from the authorities to the tourists. Marketers use advertising, direct marketing, publicity, sales promotion, and direct sales to provide information that they hope will influence consumer purchasing decisions. In addition, the development of technology, information, and communication that continues to increase makes the number of internet users higher throughout the world each year, including Indonesia. Besides Facebook, Twitter, YouTube, Path, Line, and BBM which are the favorite social media of the Indonesian people, one of the social media that is now growing rapidly is Instagram. With the number of users continues to increase, Instagram be great opportunities for businesses in the conduct of the promotion strategy in developing the ecotourism area of Kampung Nipah Sei Nagalawan namely advertising advertising through social media, then personal selling is the interaction between individuals, to meet each other face intended to creating, improving, controlling, or maintaining mutually beneficial exchange relations with other parties with social media.

REFERENCES

- Dolnicar, S., 2017. *Prospective development of the tourism online*. University of Wollongong: Faculty of Commerce.
- Hasan, M.A., 2015. Promotional activities in the strategic tourism development of lapland case study: tour operator's appearance in social media. *Thesis*. Centria University of Applied Sciences: Finland.
- Kapllani, O.P., 2017. Tourism development strategy and its impact in number of tourists and Albania economy, *Albania International Journal of Economics and Business Administration*, 3(5), 38-44. Retrieved from <http://www.aiscience.org/journal/ijeba>.
- Maria, G.C., Carmen, B., Víctor O.S., 2016. Prospective development of the tourism online distribution channel. *Journal of Tourism & Hospitality*, 4(4), 1-6. Retrieved from <https://www.longdom.org/open-access/prospective-development-of-the-tourism-online-distribution-channel-2167-0269-1000165.pdf>
- Natadjaja, L., Cahyono, Y.B., Yuwono, E.C., 2012. Kondisi desain kemasan produk makanan ringan dan minuman instant pada industri kecil skala rumah tangga (*microindustry*) di Kabupaten Kediri, *Jurnal Desain Komunikasi Visual: Nirmana*, 11(2), 1-13. Retrieved from <http://nirmana.petra.ac.id/index.php/dkv/article/view/18132>
- Nasrullah, R., 2015. *Media sosial, perspektif komunikasi, budaya dan sosioteknologi*, Simbiosis Rekatama Media. Bandung.
- Purwanto, 2003. *Komunikasi bisnis*, Erlangga. Jakarta.

- Oliveira, E., 2014. The tourism potential of northern Portugal and its relevance for a regional branding strategy. *Advances in Hospitality and Tourism Research*, 2(2), 54-78. Retrieved from <http://www.ahtrjournal.org/admin/dosyalar/8/AHTR.2%282%29-5.pdf>
- Yulianto, A. 2015. Kajian internet marketing sebagai salah satu media pemasaran industri perhotelan. *Jurnal Khasanah Ilmu*, 6(1), 65-78. Retrieved from <https://ejournal.bsi.ac.id/ejurnal/index.php/khasanah/article/view/526/418>
- Wulandari, P., Polla, J.R., Novita, 2016. Analisis peningkatan daya saing ekspor umkm cenderamata di Jakarta, *Jurnal Ekonomi*, 7(1), 34-40. Retrieved from <https://www.neliti.com/id/publications/79077/analisis-peningkatan-daya-saing-ekspor-umkm-cenderamata-di-jakarta>
- Anggraini, R. 2019. *Menpar targetkan devisa pariwisata sebesar Rp 292 Triliun di 2019*. Retrieved from <https://ekbis.sindonews.com/read/1330952/34/menpar-targetkan-devisa-pariwisata-sebesar-rp292-triliun-di-2019-1534420454> on 16th January 2019.

