

## HIGHER EDUCATION CONTRIBUTION IN PROMOTING SUSTAINABLE TOURISM DESTINATION IN THOUSAND ISLANDS, INDONESIA

Sarim SARIM<sup>1</sup>, Siswantini SISWANTINI<sup>2</sup>, Maryani MARYANI<sup>3</sup>, Azani Cempaka SARI<sup>4</sup> and Wahyu SARDJONO<sup>5</sup>

<sup>1,2</sup>*Faculty of Digital Communication and Hotel & Tourism, Bina Nusantara University*

<sup>3</sup>*Information Systems Department School of Information System Doctor of Computer Science Bina Nusantara University & Jakarta, Indonesia 11480*

<sup>4</sup>*Information Systems Management, Binus Graduate Program, Bina Nusantara University, \*siswantini@binus.ac.id; yanie@binus.edu*

### ABSTRACT

Sustainable tourism destination is the term that used to identify the promotion of sustainable development in tourism. In practice the activities need support of multi stakeholder include university or higher education. This article aims to explain of higher education contribution promoting sustainable tourism destination in Thousand Island, especially in Pramuka and Panggang Island. Both islands have long collaboration with Binus University in developing tourism destination and community empowering, and in the second period of collaboration the team fostering community to promote sustainable tourism destination by adding zero-waste tourism destination branding and fish processing as additional to culinary tourism. Result of co-creation and collaboration in promoting sustainable tourism destination fosters community in explore new idea and innovation of their natural and social resources as tourism activities, and exploitation of existing tourism activities to a new market and customer. Training and assistance in branding activities for environmentally friendly tourism destination make the community more confidence in developing ideas for economic and tourism activities on the two island being assisted.

**Keywords:** sustainability, tourism destination, food processing, zero-waste

### 1. INTRODUCTION

Tourism is currently the mainstay of regional income before or during the pandemic. The contribution of tourism to Indonesia's economic development before the Covid-19 pandemic hit was 4%, 2019 the government targets the contribution of this sector to double to 8%. However, since the pandemic hit the country, the tourism sector has only paid attention to 2.6% of the Indonesian economy. Unfortunately, tourism as an economic activity also creates some serious problem that harm environment including climate change (Streimikiene, Svagzdiene, & Jasinskas, 2020). Butler (1999), Lu & Nepal (2009), Waligo et.al (2013) suggested that environmental issues of tourism development should be consider seriously by all of tourism stakeholders, since multi-stakeholder involvement would be enabling governance of sustainable development (Rinaldi, Cavicchi, & Robinson, 2022).

Furthermore, Streimikiene et.al. (2020) found that sustainable tourism link with the environmental issues by providing green tourism services, ensuring resource savings, protection on natural environment and is based on innovations in green service creation. According to UNEP, (2004) and UNWTO (2013, 2014, and 2017) sustainable tourism destination defined as a new workplace, including employment opportunities in tourism destination, preservation of natural environment, climate change mitigation, pollution and waste reduction, promotion of green and sustainable consumption practices. Rinaldi et.al. (2022) identified that food become as essential vehicle which tourism destinations develop and contribute to community, socially, culturally, and economically. Food culture can be able as branding elements (Richards, 2015); cultural identity (Robinson & Clifford, 2012), marketing (Okumus et.al., 2007) and place branding (Rinaldi, 2017).

All at once, the challenges in developing sustainable tourism destination is place-characteristics and it's continuous process of creation and transformation, therefore it is necessary for community to develop long-term engaged collaboration and participation for outsider such as academics. University widely knowledge has three missions teaching, research and community development or generate, use, apply, and exploit knowledge and other university capabilities – outside academic environment (Molas-Gallart, et.al., 2002). Cockburn-Wootten et.al. (2018) argued that academics have a pivotal role in supporting social change by facilitating communication process in translating knowledge to more accessible to community and fostering community participation.

This article aims to explore the role of higher education in promoting sustainable tourism destination in Thousand Islands, especially in Pramuka and Panggang Islands. Pramuka Island's tourism potential includes natural and man-made tourist attraction, culinary specialties, and souvenirs, easy to access, complete facilities, as well as the support of the government and community in tourism development. In addition to working in the tourism sector, Pramuka Island residents also work as fishermen, whose produce variety of fish with limited processed such as crackers, salted

fished and dry fish. The other potential social capital of Pramuka Island is zero-waste movement leading by Ibu Mahariah an environmental hero of Thousand Island district. Her movement motivated number of households to implement reduce, reuse and recycling of waste, moreover this could be as great assets to promote sustainable tourism activities.

## 2. METHOD

Participating and action approach are used to facilitate knowledge transfer in creating sustainable tourism destination program through training of zero-waste tourism destination branding, advance fish processing and introducing website development for branding. Training was held face to face in Rumah Literasi Hijau with 22 housewives as participant and 15 teenager's members of Karang Taruna of Panggang Island. The activities were held in 2 days at 28 – 29 October 2023. The activities are under the program of Binus Bangun Desa with the tagline “Empowering Society, Building Nation”, and it is a second-year implementation in Pramuka and Panggang Islands.

## 3. RESULTS AND DISCUSSION

### Zero-waste tourism destination branding

One element of sustainable tourism destination is waste management. Supporting by Rumah Literasi Hijau lead by Ibu Mahariah, people in Pramuka Island practicing waste segregation, separated food waste and other organic waste from plastics, papers, bottles, glass etc. Plastic wastes are processes using pyrolysis technology which convert biomass to an intermediate liquid product that can refined drop-in hydrocarbon biofuels, oxygenated fuel additives and petrochemical replacements (USDA, 2021). The other valuable non-organic waste are uses as souvenir materials or send to the garbage collector, and the organic wastes are composted. Pyrolysis processing offered as one of edu-tourism attraction, that tourist or visitor that interested with the activity can participate in the workshop organized by Rumah Literasi Hijau.

However, the participation of tourist or visitor needed to make the program sustainable, therefore the community need to increase their skill in promoting the program to branding activities. Moreover, in the first day the teams conducted training in introducing branding strategy to promote zero-waste tourism destination. The training conducted in Rumah Literasi Hijau and participated by 22 who have practiced zero-waste lifestyle in their daily life. The training material focused to creating a campaign message to be implement in the tourist destination. The participant also asked to develop sustainable zero-waste campaign with written and voice message to spread periodically in the Island.



Figure 1. Introducing Zero-waste tourism destination branding with Ms. Siswanti

Figure 1 shows how community readiness to promote zero-waste tourism destinations by providing various organic and inorganic waste processing facilities. The Green Literacy House led by Mrs. Mahariah has received facility support from a private company's CSR program to manage organic waste. They offer training for tourists to learn about environmentally friendly waste management. Faculty members on this occasion strengthened the branding of the tourist area, so that tourists would increasingly understand and be willing to participate in maintaining environmental cleanliness while in the Pramuka Island tourist area.

### Creating fish meatball and other popular fish snack

Fish processing is very easy because it can be done by industry or households and does not require high costs. Fish can be processed into various snacks such as *cireng* (original West Javanese food made from starch), or crackers. Both products can be stored for a long time and have economic value compared to storing them as fresh or frozen fish.

*Cireng* has long been known and accepted by all levels of society and adding fish to the food provided additional value and new taste and kind of *cireng*. Therefore, the market is widely open and can be consumed on every occasion. Thus, the *cireng* is prospective as household business or industry from small medium to mass production. The other creation of fish is fish meatball introduction by Ms. Sarim. The team also introducing the packaging of fried fish meatball (*Basreng*) as strategic promotion of the product. In the future the activity projected to empower community in fish product diversification and become a value added of tourism activities.



Figure 2. The process of creating fish meatball with Mr. Sarim

Figure 2 faculty members provide new skills in processing marine products into various foods that can provide added value to this tourist area which has long been known for its marine tourism. The team from Binus University also introduce the packaging design for fish product.

### DISCUSSION

Co-creation of sustainable tourism destination represent by a broad construct of social engagement dimensions at varying degrees and corporation such as technology transfer through training and facilitating activities creation.

Interview with the community representation opine that the training motivated them to do the transformation of their perspective on tourism activities. The academic has several role in developing sustainable tourism destination, the beneficiary take an advantage from the university (Rinaldi, Cavicchi, & Robinson, 2022) includes: facilitate community in building “share horizon” between different stakeholder in the case of Pramuka dan Panggang Islands, they can identified the new stakeholder of the tourism program; enhancing more credibility within their local network; and foster self-confidence in developing local potential for the common good.

The training activities in promoting sustainable tourism destination in Thousand Island district, shown that trust among the higher education and community is the essential element for long-term collaboration. Fish processing could become an additional value to tourism vehicle by which tourism destination develop and broadly contribute to community, socially, culturally, and economically as argued by Rinaldi et.al. (2022). In the other side exploration local natural resource with innovation will raising community confidence in promoting their tourism destination area. Higher education involvement in promoting sustainable tourism destination in Pramuka and Panggang Islands representing the bottom-up approach in supporting mobilization of local resource for scaling up the community development. Higher education member that involves in the activity plays as medium in creating a mutually exclusive between bottom-up initiative and top-down approach which focused on marketing the tourism destination.

Zero-waste tourism destination as new branding for Pramuka Island is the other form of bottom-up initiative in promoting sustainable tourism destination, and the member of higher education that engage in the program can take the role of mediator in integrating this program with the government as main stakeholder in developing sustainable tourism destination. Sustainable tourism destination is mainly linked tourism addressing environmental issue of tourism (Lu & Nepal, 2009) and what has been done by Rumah Literasi in Pramuka Island is literally representing the sustainable tourism destination. According to Streimikiene et.al. (2020) sustainable tourism destination has several indicators include preservation of natural environment, climate change mitigation, pollution reduction, use of renewables, waste disposal, etc. Innovation, research, and technological development is essential in sustainable tourism destination development for dealing with environmental challenges.

Zero waste tourism destination is a societal innovation that still needs technological support. This is where higher education can play a role in transferring technology and skills that support the achievement of zero waste in tourist destination. Branding activities need to be supported with various campaign attributes that are easily recognized by visitors, such as providing information about the location of rubbish bins, holding activities with visitors so they can participate in maintaining biodiversity and ecosystems at tourist destination.

Additionally, Streimikiene et.al. (2020) suggest that a way to sustainable tourism destination consist of many small steps, however the most important is consistency. The first step of sustainability in tourism business is identification of problem, and according to Murava & Korobeinykova (2016) the most challenging is waste sorting and seasoning. Knowing the problem will help in prepare a plan of the key measure and strategy. The other factor that needs to consider in developing sustainability in tourism is social factors such as resident employment and unemployment, psychological climate, availability of social services in tourist destination etc.

Several researchers as cite by Streimikiene (2020) beliefs that tourism is a contribution into social integrity, that enables the establishment of relations with other cultures, cognitions of places, customs and conduct cultural exchange and pithy spending of spare time. Therefore, empowering community skill and knowledge in managing tourism activities are essential and higher education can contribute to the areas. In addition, interviews with village leader and participants appreciate the higher education contribution to the building of sustainable development and we can see a share horizon between different stakeholders.

“As village leader I can see how the team from Binus has helped the residents of Panggang Island sub-district in processing the available natural resources so that they have economic value.”

“I am really appreciating that Binus introduce us to a new skill in creating a new kind of food from our natural resource, it is inspiring me to creates more kind of food.” (Village leader)

“In the two years I can see that there is an upgrading of community participation and skills” (participant)

“During my two years together with Binus, I saw how the community's capacity was increasing. The various trainings provided by Binus made the community more aware of the potential it had, and this was very useful in promoting this area as a tourist area” (Leader of Rumah Literasi Hijau)

The ideas and activities emerging thanks to the lasting cooperation from the community. This opinion is aligned with Wang and Xiang (2007) and Rinaldi et.al. (2022) that transformation stage regarding the changing of community perspective of their ability to the strong partnership. The faculty members involved also felt the benefits of this activity, because they also had an obligation to fulfill their responsibilities as lecturers to provide community service.

In a long-term faculty member as representation of higher education institution are expected to serve as facilitator and a medium of society transformation in creating sustainable tourism. The higher education also required to be more structured and in a formalized manner way develop an engagement with society,

#### 4. CONCLUSION

The engagement between higher education and community in Thousand Island district appears pivotal in the term of exploring new ideas and innovation in creating new market and customer and exploitation the existing natural resources in positive way for sustainability. Community participation in every stage of community transformation is essential to ensure the consistency on considering the context-dependent to environmental, societal, and economic issues.

The community service provides a beneficial to both of community and faculty member, but to develop a long-term partnership which enable this collaboration to be implemented often depend on the willingness of faculty members who consistently work in co-creation and building the relationship. The characteristics of the actors involved in the program also determine the continuation of the collaboration. Program leaders also have a big role in determining what technical competencies are appropriate to be transferred to the community according to their needs.

In line with various research that has been carried out, it is proven that the presence of universities in increasing community capacity makes a positive contribution to the ability of the people they accompany to recognize and explore their potential. Sustainable tourism destinations are not easy to realize, but by recognizing the needs and potential of the assisted communities and their willingness to establish long-term collaboration, this program will be easier to achieve.

Community involvement is pivotal to the path in enhancing sustainable tourism, especially on transformation of collective action rather than individual effort. Faculty member could increase role in collective process since by engaging with society the academics can offer more accessible to knowledge and skill need to encouragement change, as well as representing institution in creating a change. Therefore, higher education is expected to serve as a role of facilitator and conscience of society.

#### 5. REFERENCES

- Butler, R. (1999). Sustainable tourism: A state-of-the-art review. . *Tourism Geographies*, 1(1), 7–25. <https://doi.org/10.1080/14616689908721291>
- Lu, J., & Nepal, S. K. (2009). Sustainable tourism research: An analysis of papers published in the Journal of Sustainable Tourism. . *Journal of Sustainable Tourism*, 17(1), 5–16.
- Okumus, B., Okumus, F., & McKercher, B. (2007). Incorporating local and international cuisines in the marketing of tourism destinations: The cases of Hong Kong and Turkey. *Tourism Management*, 28(1), 253–261. <https://doi.org/10.1016/j.tourman.2005.12.020>
- Richards, G. (2015). Food experience as integrated destination marketing strategy. *The World Food Tourism Summit, 8–11 April 2015*. Estoril, Portugal,.
- Rinald, C. (2017). Food and gastronomy for sustainable place development: A multidisciplinary analysis of different theoretical approaches. . *Sustainability*, 9(10), 1748, 1–25. <https://doi.org/10.3390/su9101748>
- Rinaldi, C., Cavicchi, A., & Robinson, R. N. (2022). University contribution to co-creating sustainable tourism destination. *Journal of Sustainable Tourism* , <https://doi.org/10.1080/09669582.2020.179705>
- Robinson, R., & Clifford, C. (2012). Authenticity and foodservice festival experiences. *Annals of Tourism Research*, 39(2), 571–600. <https://doi.org/10.1016/j.annals.2011.06.007>
- Streimikiene, D., Svagzdiene, B., & Jasinskas, E. (2020). Sustainable Tourism Development and Competitiveness: The systmatic literature review. *Sustainable Development*, 1-13, DOI: 10.1002/sd.2133
- UNWTO. (2017). *Tourism and the Sustainable Development Goals – Journey to 2030*. . <https://doi.org/10.18111/9789284419401>.
- UNWTO. (2004). *Indicators of Sustainable Development for Tourism Destinations: A Guidebook*. . UNWTO.
- UNEP. (2004). *Sustainable tourism development in UNESCO*. Vienna, Austria: : UNEP.
- USDA. (2021, October 9). *Biomass Pyrolysis Research*. Retrieved from USDA Agricultural Research Service: <https://www.ars.usda.gov/northeast-area/wyndmoor-pa/eastern-regional-research-center/docs/biomass->

pyrolysis-research-1/what-is-pyrolysis/#:~:text=Pyrolysis%20is%20one%20of%20the,in%20the%20absence%20of%20oxygen.

Waligo, V., Clarke, J., & Hawkins, R. (2013). Implementing sustainable tourism: A multi-stakeholder involvement management framework. . *Tourism Management*, 36, 342–353.

<https://doi.org/10.1016/j.tourman.2012.10.008>

Williams, H., Yuan, J., & Williams Jr, R. L. (2019). Attributes of memorable gastro-tourists' experiences. *Journal of Hospitality, Tour and Res.* 43,, 327–348.