

The Collaborative Role of MSMEs and the Blue Economy in Achieving Sustainable Development in Coastal Areas of East Kalimantan

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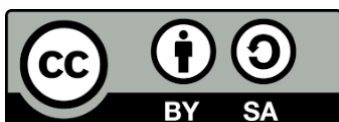
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Abstract

This research aims to identifying and analyzing collaboration between MSMEs and the blue economy to realize sustainable development in the coastal areas of East Kalimantan. The research was conducted in several regencies in East Kalimantan, namely Balikpapan, Paser, Bontang, Kutai Kartanegara, and East Kutai. These regions were selected because they have significant maritime-based economic activity. Data collection was conducted over a two-month period. This study used a qualitative approach to explore the perceptions, experiences, and views of MSMEs regarding collaboration with the blue economy. The results of this study demonstrate the role of Collaboration between MSMEs and the blue economy concept not only positively impacts the well-being of coastal communities but also serves as a strategic step towards achieving sustainable development. Strengthening collaboration between MSMEs and the blue economy can become a driving force for sustainable development.

Keywords: MSMEs, Blue Economy, Collaboration, Sustainable Development



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INTRODUCTION

Indonesia's coastal areas possess enormous natural resource potential, including fisheries, marine tourism, and other marine products, which can be key drivers of the local economy. However, this potential has not been fully utilized optimally and sustainably. Many coastal areas in Indonesia still face various problems such as marine environmental degradation, economic inequality, low added value of local products, and limited access to capital and technology for small businesses. Micro, Small, and Medium Enterprises (MSMEs) play a crucial role as economic drivers for coastal communities. MSMEs contribute to job creation, increased income, and strengthened local economies. However, the competitiveness of MSMEs in coastal areas remains low due to a lack of innovation, collaboration, and linkages with other maritime-based economic sectors. The blue economy business model can be implemented by Indonesian communities who utilize the fisheries and maritime sectors for their livelihoods (Putri et al. 2022). Collaboration between MSMEs and the blue economy plays a crucial role in realizing sustainable development in the coastal areas of East Kalimantan. Coastal MSMEs can increase their income through innovation in zero-waste seafood derivative products, such as fish floss, fish skin crackers, and fish meal, which previously had low sales value. The blue economy provides opportunities to create added value, such as processing seaweed into bioplastics or collagen. According to Jusuf (2012), the blue economy can be seen as an action that relies on the comprehensive development of the people's economy to achieve overall national development. A blue economy-based development approach will synergize with the implementation of a triple-track strategy, namely pro-poor (poverty alleviation), pro-growth (growth), pro-job (labor absorption), and pro-environment (environmental preservation).

The basic principle of collaboration theoretically means cooperation between parties with different resources, expertise, or interests to achieve common goals. Collaboration between MSMEs and the Blue Economy encompasses environmental sustainability, technological innovation, efficient use of resources, improved social welfare, and strengthened cooperation between the various parties involved (Pauli, 2010). The relevance of the blue economy to coastal economic development lies in its potential to encourage economic growth in coastal areas through an environmentally friendly approach. Coastal areas are the center of various marine economic activities, such as fisheries, marine tourism, sea transportation, and seafood processing. By applying the principles of the blue economy, coastal economic development not only focuses on increasing economic output but also ensures that marine ecosystems are maintained to support long-term sustainability.

East Kalimantan, as one of the provinces with the longest coastline 31,413.35 km² and abundant marine resources, offer significant potential for adopting a blue economy (KKP, 2021). Implementing a blue economy in East Kalimantan could include developing sustainable capture fisheries and aquaculture, enhancing conservation-based marine tourism, and innovating marine product processing. Furthermore, this approach is also relevant for improving the quality of life of coastal communities through job creation and poverty reduction.

Blue Economy It also provides significant opportunities for coastal MSMEs to play an active role in boosting the local economy. Many coastal MSMEs operate in the seafood processing, tourism, and maritime service sectors, which can be combined with blue economy principles. By supporting coastal MSMEs in implementing this approach, economic benefits can be achieved without sacrificing environmental sustainability. Furthermore, MSME products that focus on sustainability have significant potential to penetrate the global market (Halim, 2020).

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in the national economy. As a dominant sector in the economic structure of many countries, including

Indonesia, MSMEs contribute significantly to job creation, economic growth, and poverty reduction. MSMEs play a significant role in Indonesia's economic growth, accounting for 99% of all business units. By 2023, the number of MSMEs will reach approximately 66 million. MSMEs contribute 61% to Indonesia's Gross Domestic Product (GDP), equivalent to IDR 9,580 trillion. Approximately 117 million workers, or 97% of the total workforce, are employed by MSMEs (Kadin, 2023). In May 2022, the number of Micro, Small, and Medium Enterprises (MSMEs) in East Kalimantan reached 344,581 units. This figure represents a significant increase compared to 2019's 307,343 (BPS, 2023).

One of the main advantages of MSMEs is their flexibility in facing market dynamics. With their small scale, MSMEs are able to adapt quickly to changing consumer needs and economic conditions (Pudyastuti and Saputra, 2021). Furthermore, MSMEs also play a crucial role in equitable economic development, particularly in rural and coastal areas. This is because MSMEs tend to be based on local resources and involve local communities in their operations (Ahmad et al., 2023). The key characteristics of MSMEs, including their small scale, local ownership, high flexibility, reliance on local resources, and low levels of technology and management, make them crucial pillars for local and national economic development (Tambunan, 2019).

Despite the significant role of MSMEs, this sector also faces various challenges that hinder its optimal contribution. These challenges include limited access to capital, technology, and markets, as well as low levels of education and skills among business actors. In the era of globalization and digitalization, MSMEs also face increasingly fierce competition, both domestically and internationally. One major challenge is limited access to financing. Many MSMEs struggle to obtain adequate business capital due to a lack of collateral or legal documents required by formal financial institutions. Furthermore, low financial literacy among MSMEs also hinders optimal business financial management (Rahmawati, 2021). Another problem frequently faced by MSMEs is the low adoption of modern technology and efficient management practices. Most MSMEs still rely on traditional technology, which limits their productivity and efficiency, especially in the face of increasingly competitive markets. Furthermore, the low quality of human resources (HR) is compounded by the limited managerial and technical skills of most MSMEs. According to research by Tambunan (2019), low levels of education and a lack of training make it difficult for many MSMEs to improve product quality, expand their markets, and face global competition. MSMEs often face challenges in marketing their products widely. Limited access to global markets, a lack of effective branding, and a minimal digital marketing strategy are major obstacles. Many MSMEs focus solely on local markets, making them vulnerable to changes in consumer demand at the regional level (Rahmawati, 2021). Therefore, comprehensive support from the government, financial institutions, and the private sector is needed to increase the capacity and competitiveness of MSMEs.

In the context of a sustainable economy, MSMEs have significant potential to contribute to environmentally friendly economic development. By adopting sustainable and innovative business practices, MSMEs can support the achievement of the Sustainable Development Goals (SDGs). Therefore, strengthening MSMEs not only impacts economic growth but also social and environmental sustainability. Based on this background, this research aims to...Identifying and analyzing the synergy between MSMEs and the blue economy concept in supporting sustainable development in the coastal areas of East Kalimantan.

LITERATURE REVIEW**Socio-Economic Conditions of Coastal Communities**

Coastal communities have distinctive socio-economic characteristics, often influenced by their geographic location and dependence on marine resources. Most coastal communities work in fisheries, tourism, and other marine-based economic activities. However, despite their abundant natural resource potential, coastal communities generally face various socio-economic challenges (Ardila & Hayat, 2023).

Poverty rates in coastal areas tend to be higher than in other regions. This is due to limited access to education, health care, and basic infrastructure such as roads, electricity, and clean water. Furthermore, high dependence on natural resources often makes coastal communities vulnerable to environmental changes, such as marine ecosystem damage, declining fish catches, and the impacts of climate change. Socially, coastal communities have strong community ties, which often serve as social capital supporting economic activities and natural resource management. However, weak livelihood diversification and limited access to training or new skills are challenges that must be addressed to improve their well-being (Langlowa, 2022).

The Collaborative Role of MSMEs and the Blue Economy

Collaboration is a partnership between organizations to achieve a common goal that is difficult to achieve individually, requiring cooperation. According to Wanna, collaboration means working together or collaborating with others. This implies individual actors, groups, or organizations working together on some endeavor (Akbar et al., 2022).

Collaboration between actors (MSMEs, government, academics, communities, and the private sector) creates collaborative advantages in developing a sustainable blue economy. The main principles of collaboration: collaborative resource management: MSMEs play a role in processing marine products and marketing products, while other institutions support technology and financing. Sustainable innovation: Collaboration accelerates the adoption of environmentally friendly technologies. Local empowerment: Coastal communities become key actors in MSMEs, not just beneficiaries of the blue economy. Economic-ecological sustainability: Balancing economic growth with marine conservation.

Definition and Characteristics of MSMEs

Various definitions of the characteristics of MSMEs. According to Hatta (2006) Micro, Small, and Medium Enterprises (MSMEs) are types of businesses that have a certain amount of assets and turnover, which operate on a small and medium scale and have limitations in terms of production capacity, resources, and capital. MSMEs play an important role in economic equality and poverty reduction. Based on Law Number 20 of 2008 concerning MSMEs, MSMEs are defined as business units that have a small scale, both in terms of the number of workers, assets, and income. Micro businesses have criteria for maximum assets of IDR 50 million and a maximum turnover of IDR 300 million per year. Small businesses have assets between IDR 50 million and IDR 500 million with an annual turnover of IDR 300 million to IDR 2.5 billion. Meanwhile, medium businesses have assets between IDR 500 million and IDR 10 billion with an annual turnover of IDR 2.5 billion to IDR 50 billion.

Suyadi, et al (2018), identified the main characteristics of MSMEs including:

1. Small-scale businesses. The capital used is relatively small and tends to come from personal sources or small loans.
2. Local ownership. MSMEs are typically owned and managed by individuals or families, with direct involvement in business operations.

3. High flexibility. MSMEs are able to adapt quickly to market changes and consumer needs.
4. Based on local resources. Many MSMEs utilize local raw materials or serve the needs of the local community.
5. Low technology and management. Most MSMEs still use simple technology and have less complex management structures.

Blue Economy

The World Bank (2017) defines the Blue Economy as the sustainable management of marine resources to support economic development, social sustainability, and environmental sustainability. This approach focuses on the intelligent management of maritime resources to create a balance between economic growth and environmental sustainability, encompassing sectors such as fisheries, marine tourism, renewable marine energy, and marine debris management. Furthermore, The Ocean Panel (2020) defines the Blue Economy as an economy that harnesses the potential of the ocean to promote inclusive and sustainable economic development, while reducing poverty and damage to marine ecosystems. They emphasize the importance of collaboration between governments, the private sector, and communities in creating a resilient and responsible ocean economy.

Blue economy, or blue economy, is a concept of sustainable marine-based economic development, which integrates the economic benefits of marine resources with environmental conservation (Pauli, 2010). This concept emerged in response to the challenges of marine ecosystem degradation and the increasing need for a more environmentally friendly development approach (Ministry of National Development Planning/Bappenas, 2023). In the blue economy concept, marine resources are utilized responsibly to maintain a balance between economic, social, and ecological interests. The Blue Economy aims to be a source of sustainable and inclusive growth for Indonesia. This is based on a balance between the social, economic, and environmental pillars of sustainable development (Youssef, 2023).

Definition of Sustainable Development Laws in Indonesia

In Law Number 32 of 2009 concerning Environmental Protection and Management: “Sustainable development is a conscious and planned effort that integrates environmental, social, and economic aspects into development strategies to ensure the integrity of the environment as well as the safety, capabilities, welfare, and quality of life of present and future generations.”

RESEARCH METHODS

This research was conducted in several regencies in East Kalimantan that have access to the sea and have blue economy potential, such as the cities of Balikpapan, Paser, Bontang, Kutai Kartanegara, and East Kutai. These areas were selected because they have significant maritime-based economic activities. Data collection was carried out for 2 months. This study used a qualitative approach to explore the perceptions, experiences, and views of MSMEs related to the blue economy of sustainable development. This approach allows for a deeper understanding of the phenomenon being studied. The type of research used is descriptive qualitative, which aims to provide an in-depth overview and understanding of the role of MSMEs in supporting the blue economy in East Kalimantan. Data sources come from 1) Primary Data, namely data obtained directly from the field through in-depth interviews with MSMEs in the maritime sector (such as fishermen, seafood processing entrepreneurs, marine tourism actors, and so on), as well as relevant government officials involved in the development of the blue economy. 2) Secondary data comes from reports published by local governments or related institutions, as well as relevant literature regarding the blue economy

and MSMEs in East Kalimantan. Data analysis was carried out using a Thematic Analysis approach which includes: 1) Interview Transcription 2) Coding 3) Theme Grouping 4) Data Interpretation.

RESULT AND DISCUSSION

The Collaborative Role of MSMEs and the Blue Economy in Achieving Sustainable Development in Coastal Areas of East Kalimantan

MSMEs play a strategic role in the local and national economy. At the local level, MSMEs serve as economic drivers for communities by creating jobs for local residents. This helps reduce unemployment and increase household incomes in coastal and remote areas. MSMEs also play a role in community empowerment through the productive and efficient management of local resources such as fish floss, fish skin crackers, and fish meal.

MSMEs on the coast of East Kalimantan play a role in improving the local economy through maritime sectors such as fisheries, seafood processing, and marine tourism. Processing of seafood such as seaweed and fish produced by local MSMEs has reduced dependence on imports and strengthened the regional economy. MSMEs on the coast of East Kalimantan are well-managed, helping to increase regional economic resilience by strengthening sustainable marine-based economic sectors. MSMEs in Bontang City that operate in processed products such as fish floss, fish skin crackers, and fish meal or other marine-based products help reduce dependence on other sectors that are more vulnerable to climate change. Environmentally friendly seafood products can be seen in the Bontang Koala area. Here, various types of processed seafood are sold, including salted fish, seaweed, shrimp paste, seaweed chips, amplang (rice crackers), fish floss, fish skin crackers, fish meal, and so on. Similarly, in Balikpapan, in 2023, the Kalimantan Institute of Technology (ITK), through its Community-Based Empowerment (PBM) program, established a souvenir center and MSMEs in the Bamboe Wanadesa Ecotourism area in Balikpapan. This initiative aims to provide a platform for local communities to develop MSMEs to promote the natural tourism area, thereby boosting the local economy.

Many MSMEs on the coast of East Kalimantan have adopted sustainable principles in their operations, such as environmentally friendly fishing practices and seafood processing that minimizes the impact on the marine ecosystem. This is evident in almost all regencies/cities in East Kalimantan Province. When catches are excessive, fishermen process the fish into salted fish or fishmeal, fish skin crackers, and fishmeal. This work is carried out by the fishermen's wives who are trained and skilled. Furthermore, MSMEs are developing seaweed cultivation businesses using environmentally friendly techniques in a sustainable manner without damaging the marine ecosystem. MSMEs on the coast of East Kalimantan play a role in the wise use of marine resources by optimally exploiting marine potential without damaging coastal ecosystems. Innovation in the use of marine product management technology and the use of marine-based renewable energy are important highlights in supporting the blue economy. Currently, fishermen in East Kalimantan still use traditional tools for catching and processing seafood. Coastal MSMEs provide empowerment opportunities for local communities, especially women and indigenous peoples, by providing jobs and skills training that align with the region's maritime potential. The Fisheries Service, located in each district/city, conducts annual training for fishermen and their wives to improve their skills in more environmentally friendly fishing and fish processing technologies. In addition, the Tourism Service, in collaboration with the Cooperatives and MSMEs Office, conducts outreach and training for MSMEs in the marine tourism sector managed by local communities. The Bontang City Government, through the Cooperatives, Small, Medium Enterprises, and Trade Office, provides managerial training to MSMEs. This training aims to improve product competitiveness, particularly for processed seafood products, with a focus on

innovation, design, packaging, and marketing strategies. This step supports the development of MSMEs based on marine resources, in accordance with the blue economy concept. The Bontang City Government also strives to develop the skills of MSMEs in processing and marketing marine products. This program aims to increase the added value of fishery products and the welfare of coastal communities, in line with the blue economy principles that emphasize sustainability and efficiency in the utilization of marine resources. MSMEs on the coast of East Kalimantan are supporting the marine tourism sector by developing environmentally sustainable tourism destinations. These MSMEs are also contributing to the development of ecotourism, which focuses on the conservation of marine natural resources. Homestay and ecotourism businesses managed by local MSMEs in coastal areas of East Kalimantan, which prioritize the conservation of coral reefs and marine life, are located on Miang Island in East Kutai Regency.

The Collaborative Role of MSMEs and the Blue Economy in Achieving Sustainable Development.

The blue economy offers significant potential in the fisheries and marine tourism sectors, providing opportunities for coastal MSMEs in East Kalimantan to collaborate and grow. Supported by the availability of marine resources, coastal MSMEs play a greater role in the development of the blue economy in East Kalimantan. MSMEs in coastal East Kalimantan play a role in improving the local economy through maritime sectors such as fisheries, seafood processing, and marine tourism. These MSMEs create employment opportunities and increase local incomes sustainably.

Utilizing marine potential, such as fish and shellfish cultivation, and developing processed marine products, can increase the added value of the marine sector. Local governments and other relevant parties play a crucial role in providing policy support and facilities that can assist coastal MSMEs, such as financing programs, training, and capacity building. Access to microfinance for MSMEs in the marine sector is also provided, as are incentives for entrepreneurs adopting environmentally friendly technologies. The research identified MSME collaborations that support the Blue Economy program to achieve sustainable development in the coastal areas of East Kalimantan, including:

1. Coastal Tourism and Ecotourism. East Kalimantan boasts extraordinary coastal beauty, from beaches to mangrove ecosystems and coral reefs. MSMEs in the tourism sector have the potential to develop through the provision of ecotourism services. Research has shown that all sampled locations offer activities such as boat and tour boat rentals to explore coastal areas and small islands, as well as local tour guides who can offer cultural experiences and natural beauty to tourists. The development of eco-friendly homestays in coastal areas or islands is usually undertaken by the local government but managed by the surrounding community. Local handicrafts based on coastal culture, such as beaded jewelry, bags, or woven items made from natural materials, are also available. Paser Regency has several coastal sub-districts, such as Tanjung Harapan Sub-district and Kuaro Sub-district, which are locations for various MSMEs that focus on local craft products and processed seafood in the form of fish floss.
2. Management and Utilization of Marine Resources. East Kalimantan has significant potential in the fisheries and maritime sector. MSMEs can engage in various activities focused on sustainable marine resource management, such as fish and shrimp cultivation, which is widely found in Kutai Kartanegara and East Kutai Regencies using environmentally friendly technologies, as well as brackish water fish farming such as milkfish and shrimp. Research shows that marine product production and processing can be found in all coastal areas in East Kalimantan. MSMEs produce processed products such as fish floss, fish skin crackers, shrimp crackers, fish meal, and seaweed sweets.

- Bontang City is one of the centers for seaweed-based product production. Given the abundance of seaweed species along the coast of East Kalimantan, these MSMEs develop products such as sweets, jelly, seaweed-based cosmetics, and animal feed.
3. **Infrastructure and Service Development.** The service and infrastructure sectors also present opportunities for MSMEs in coastal East Kalimantan, particularly those related to the maritime and tourism sectors, such as providing sea transportation services and homestays or beach accommodations. MSMEs can provide sea transportation to connect small islands with large cities or between tourist areas. The large number of small islands in East Kutai Regency has encouraged inter-island transportation entrepreneurs to capitalize on this opportunity. Furthermore, the development of logistics services for the distribution of fishery goods or other local products from coastal areas to wider markets is crucial. The provision of accommodations, such as lodgings or other facilities in coastal areas, is essential to support visiting tourists. Villa Mini Cafe Samudera is a *Homestay* Overwater, with easy access and beautiful buildings. There's a cafe serving Bontang Kuala specialties, a boat cafe in Sangatta serving seafood, and the D'Villa homestay, located overwater with easy access and beautiful buildings.
 4. **Development of Local Handicraft Products.** The cultural diversity of East Kalimantan's coast offers opportunities for the development of MSMEs in the field of local culture-based handicrafts. MSMEs can produce handicrafts made from natural materials, such as jewelry made from shells, flower arrangements made from shells, and traditional Dayak clothing. These can be marketed to tourists interested in local culture, as well as art and home decor products inspired by the natural beauty of the coast and sea, supporting a sustainable blue economy.
 5. **Marine and Coastal Waste Management.** Properly managed marine and coastal waste can provide opportunities for MSMEs to produce useful and economically valuable products. Several business opportunities are being developed in this sector in the form of utilization of fish waste or other marine products to be used as animal feed or organic fertilizer. One area actively involved in this effort is Kutai Kartanegara Regency. The East Kalimantan Department of Marine Affairs and Fisheries has provided fish feed machines to several fish farming groups in the region. These groups have also received training from Mulawarman University on self-made fish feed production techniques. Self-made fish feed can be made from locally available ingredients near the farming site, such as shrimp heads, goiter, concentrate, fish scraps, snail guts, and other materials. These are then processed into fish meal to be mixed with other ingredients in the feed production process.
 6. **Local Seafood Processing Activities.** Apart from cultivation, MSMEs can utilize marine products around the coast for various processed products, such as processed fish and shellfish-based products which are more valuable, such as shrimp paste, shredded meat, or ready-to-eat food. Crab crackers are a typical Balikpapan snack made from flour dough mixed with crab meat, resulting in a savory and crunchy taste. This product was pioneered by Filsa Budi Ambia through his business "Kampoeng Timoer", which has now become a popular souvenir from Balikpapan. Next is Amplang, a typical East Kalimantan cracker made from mackerel meat, tapioca flour, and spices. This product is widely produced by MSMEs in all regencies in East Kalimantan and is a favorite tourist souvenir. Exports of processed fishery products, such as salted fish, fish floss, and processed seaweed products to the international market.

There are many challenges faced by MSMEs in collaborating with the blue economy program. In order to achieve sustainable development, several steps that can be taken to face these challenges include:

1. **Capacity Building and Training:** Provincial and district/city governments and private institutions provide training to MSMEs on the Blue Economy, sustainable natural resource management techniques, marketing techniques, collaboration among fellow MSMEs in the Blue Economy, and how to utilize technology to improve efficiency and product quality.
2. **Infrastructure Strengthening.** The government needs to improve infrastructure, including ports, transportation roads, seafood processing technology and seafood processing facilities, to support MSMEs in producing and marketing their products to a wider market.
3. **Green Financing Counseling:** Financial institutions can be involved to offer financing with low and affordable interest rates or based on environmentally friendly projects that focus on marine resource management.
4. **Partnership and Collaboration:** Building partnerships between MSMEs and the blue economy with research institutions, large companies, or governments to share knowledge, technology, and market access.
5. **Supportive Policies.** The government must ensure more proactive and coordinated policies to support MSMEs in adopting blue economy principles.

CONCLUSIONS

Collaboration between MSMEs and the blue economy has been proven to support sustainable development in coastal areas. Through collaboration between MSMEs, the government, the private sector, and community organizations, coastal development can be directed toward creating an inclusive economy that maintains a balance between social, economic, and environmental aspects. Government support, through policies that support the development of MSMEs based on the blue economy, is crucial. This includes providing access to financing, entrepreneurship training, infrastructure development, and protecting marine ecosystems. Furthermore, collaboration with the private sector and non-governmental organizations is also needed to accelerate the adoption of technology and innovation that supports sustainable development.

Collaboration between MSMEs and the blue economy in coastal East Kalimantan must focus on a holistic approach, encompassing strengthening MSME capacity, diversifying livelihoods, utilizing environmentally friendly technologies, and sustainably managing coastal resources through coral reef restoration and planting environmentally friendly seaweed. Thus, the coastal areas of East Kalimantan can become a model for sustainable development that not only improves community well-being but also maintains the sustainability of coastal ecosystems for future generations.

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