Minapolitan Region Development Analysis at Penajam Paser Utara using Blue Economy Concept

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Abstract. Penajam Paser Utara (PPU) Region in East Kalimantan was assigned as one of Minapolitan area in Indonesia focusing on aquaculture based on Indonesia Ministry of Maritime Affairs and Fisheries Decision Number 35 in 2013. Unfortunately, it is shown from PPU region statistics data that decreasing fisheries production in PPU region was occur especially for land fisheries from 2013 until 2015. The aim of this study is to formulate development strategies of Minapolitan in PPU Region by the Blue Economy concept. Several variables such as fisheries and aquaculture aspects, processing and marketing, incomes and workers, also sustainability and economic paradigm is evaluated in this study. Firstly it needs to identify the potential of character and problem by reviewing Minapolitan area in PPU Region with descriptive comparative analysis. Secondly, the fruitfulness of Minapolitan activity in PPU Region impact factors was identified by using internal and external factor (IFAS and EFAS) analysis. Then some of strategic considerations was formulated by using the successful development indicator in Minapolitan area that associate to the Blue Economy concept with SWOT analysis. The result of IFAS analysis show the highest score of strength that is production and commodity productivity. Contrarily, the income level factor is become the highest score at weakness. Then, the EFAS analysis declare that marketing system is the highest factor in opportunity. The position of SWOT quadrant indicate that the Minapolitan area of PPU region is in quadrant I/or first quadrant which means progressive. Therefore, the Minapolitan in PPU have a great chance to increase the cultivation optimally. The results of SWOT matrix is to increase its product and productivity by upgrading the quality and quantity production facilities, raising the control of production activites and also increasing the supervision of processing business with sustainable management business principle.

1. Introduction

Minapolitan region is originated from Agropolitan, which is a region containing of one or more centers in rural areas as fisheries production. It have a system and management of natural resources represented by an association of functional and spatial unit hierarchy settlement systems and business-mina system. Friedman and Douglas (1975) offering this concept to face against the failure of industrial system development in Asia. This failure caused by the hyper urbanization phenomena, which emerge a highly amount of unemployment, poverty, lack of food resources and decrease of welfare. Similar to Agropolitan, Minapolitan concept as well, create by Friedman and Douglas (1985) as development activities are concentrated in rural areas inhabited between 50,000-150,000 inhabitants.

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Decision Number 35 in 2013. Unfortunately, it is shown from PPU region statistics data that decreasing fisheries production in PPU region was occur especially for land fisheries from 2013 until 2015. The aim of this study is to formulate development strategies of Minapolitan in PPU Region by the Blue Economy concept.

2. Literature Review
Based on the Indonesia Ministry of Maritime Affairs and Fisheries (2013), the concept of Minapolitan can be realized through several approaches, such as (1) alternative models / strategies with superior commodities with guaranteed quality and quantity as well as having a market that can accommodate the product, (2) the priority of regional development depends on the characteristics of each region (3) development model that focuses fishery resources as economic potential, (4) integrated economic development clusters from upstream to downstream, (5) locus-based development that integrates resources, finance, information, technology and human resources. While in evaluating Minapolitan performance, seen from (1) aquaculture fisheries, (2) capture fisheries, (3) processing and marketing, (4) revenue and labor.

Pauli (2010) argues that the concept of Blue Economy developed to answer the challenge, so that the world economic system tends to exploitative and environmentally destructive. Beside the effect of wastes, the nature also damaged due to exploitation beyond its capacity or carrying capacity. This concept aims to prosper the community and reduce the potential for natural damage due to exploitation. It can be derived from the essence that blue economic elements can be viewed from (1) sustainability aspects consisting of natural efficiency, waste free, social awareness and innovation and creativity, and (2) an economic paradigm consisting of ecosystems and business method.

3. Methods
By reviewed the Minapolitan and Blue Economy theories, several variables such as fisheries and aquaculture aspects, processing and marketing, incomes and workers, also sustainability and economic paradigm is evaluated in this study. Then further identification of potential character and its problem is needed by reviewing Minapolitan area in PPU Region with descriptive comparative analysis. This descriptive comparative analysis is required to determine those variables.

Secondly, the success of Minapolitan activity in PPU Region impact factors was identified by using internal and external factor (IFAS and EFAS) analysis. Then, the result of IFAS and EFAS were assessed by the stakeholder (representative of Department of Marine and Fisheries of PPU region) using scoring analysis. The score resulted from this assessment were determined by the importance level of each factor.

Then formulate some of strategic considerations using the successful development indicator in Minapolitan area that associate to the Blue Economy concept with SWOT analysis.

4. Results
Several data that used to analyze and identifying characteristics of each factor are production realization data of sea and land fishery commodities in 2015, development and requirement data for supporting Minapolitan infrastructure, expansion support data for production systems and fishery farmers in PPU district, the data of procurement assistance for the community in 2015, the amount of marine fisheries and inland farmers data in PPU district in 2015, the diversity data of inland fisheries farmers in PPU district, data of poor families in PPU district in 2012, data about fishing gear and ownership of boats quantity in PPU district 2015, primary survey through direct observation in supporting infrastructure such as the Port Fish facilities (TPI) as well as an interview with Mr. Roni Tuska (Department of Marine and Fisheries) about infrastructure, accessibility, harvesting system, abrasion disaster potential and irrigation systems.

Through a comparative descriptive analysis by comparing the existing condition of the field either by primary or secondary data, the identity of each factor obtained in this study are:
Table 1. Influential Factors in Minapolitan Success with Blue Economy Principles in the District PPU

| Aspect                        | Factor                                                                 | Identity | Remarks                                                                                                                                                                                                 |
|-------------------------------|------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fisheries and aquaculture     | Production And Productivity of Superior Commodity                      | S1       | High fisheries production in PPU district is a strength point for activity in PPU Minapolitan region                                                                                                       |
|                               | Multiplier Effect                                                      | O1       | Minapolitan activities resulted in a positive impact for the economy in PPU district                                                                                                                    |
|                               | Quality of production facilities                                       | W1       | The condition of supporting facilities and accessibility is still less than optimal in its development                                                                                                   |
|                               | Development of Cultivation Systems                                    | S4       | Have planned an integration between upstream development system in Babulu District, with downstream system in Penajam, Waru and Sepaku District                                                        |
|                               | Management Quality                                                    | W2       | The need for oversight and management activities that deal with the conditions of service in the port of fish (TPI) as the unit of management-related outcomes, inputs and processes. |
| Port Development              |                                                                        | W3       | Analyzing the condition of port infrastructure and fishery activities which are still not optimal                                                                                                         |
| Processing and marketing      | Production, productivity, and result value                             | O4       | PPU district have a variety of community activities unit such as home industries that process fishery products and aquaculture                                                                          |
|                               | Quality and diversity of UMKM products                                 | S2       | fish processing results are quite varied and the quality is good enough                                                                                                                                |
|                               | Amount of Processing Business                                          | W4       | the number of processing business in PPU District still not increased especially UMKM process for fishery products                                                                                         |
|                               | Marketing System                                                      | O5       | able to penetrate the regional market to Banjarmasin, Samarinda and Java.                                                                                                                              |
|                               | Business Development System                                           | O6       | there is a commitment between local government and fishery farmer, in the form of financial contributions, personnel, and facilities management and development in the Minapolitan region |
| Income and employment         | Business Opportunities And Employment                                  | O7       | high business opportunities and employment in PPU District                                                                                                                                                |
|                               | Public Welfare                                                        | W5       | The level of welfare is still low, especially in fulfilling health and education facilities                                                                                                               |
|                               | Income Level                                                          | W6       | The level of income is still inadequate, judging from the large number of poor people in PPU District                                                                                                     |
| Sustainability                | Natural Efficiency                                                    | S3       | How to harvest and tools that used are still traditional and harmless to the environment                                                                                                                 |
|                               | Pollution Free                                                        | T1       | Lack of community commitment to waste-free fishery production                                                                                                                                           |
| Economic paradigm             | Ecosystem                                                             | O8       | Fishermen pay attention to cycles of natural ecosystems                                                                                                                                                 |
|                               | Business Method                                                       | T2       | Product innovation has not been developed with optimal production systems and management                                                                                                                |
Then the assessment by the representative of Department of Marine and Fisheries of PPU region using scoring analysis generate the score based on their weighting of importance level on each factor from IFAS and EFAS. The IFAS analysis declare that Production and productivity of superior commodity in strength and the amount of processing business are the highest factor in weakness.

| Identity | Factor | Weight | Score | Total Score |
|----------|--------|--------|-------|-------------|
| **Strength** | | | | |
| S1 | Production and productivity of superior commodity | 0.15 | 4 | 0.6 |
| S2 | Quality and diversity of UMKM products | 0.15 | 3 | 0.45 |
| S3 | Natural efficiency | 0.1 | 4 | 0.4 |
| S4 | Development of cultivation system | 0.1 | 3 | 0.3 |
| **Sum** | | 0.5 | | 1.75 |
| **Weakness** | | | | |
| W1 | Management quality | 0.05 | -2 | -0.1 |
| W2 | Development of harbour | 0.05 | -2 | -0.1 |
| W3 | Amount of processing business | 0.15 | -4 | -0.6 |
| W4 | People welfare | 0.1 | -3 | -0.3 |
| W5 | Income level | 0.15 | -4 | -0.6 |
| **Sum** | | 0.5 | | -1.7 |
| **Total** | | 1 | | 0.05 |

Then, the EFAS analysis declare that marketing system is the highest factor in opportunity also the free pollution and business method have the same importance level in threat.

| Identity | Factor | Weight | Score | Total Score |
|----------|--------|--------|-------|-------------|
| **Opportunity** | | | | |
| O1 | Multiplier effect | 0.1 | 3 | 0.3 |
| O2 | Quality of production facilities | 0.1 | 4 | 0.4 |
| O3 | Production, productivity, and result value | 0.15 | 4 | 0.6 |
| O4 | Marketing system | 0.15 | 4 | 0.6 |
| O5 | Business development system | 0.05 | 3 | 0.15 |
| O6 | Business opportunity and employment | 0.1 | 3 | 0.3 |
| O7 | Ecosystem | 0.1 | 4 | 0.4 |
| **Sum** | | 0.85 | | 2.75 |
| **Threat** | | | | |
| T1 | Free pollution | 0.075 | -3 | -0.225 |
| T2 | Business method | 0.075 | -3 | -0.225 |
| **Sum** | | 0.15 | | -0.45 |
| **Total** | | 1 | | 2.3 |

The position of SWOT quadrant indicate that the Minapolitan area of PPU region is in quadrant I/or first quadrant which means progressive. Therefore, the Minapolitan in PPU have a great chance to increase the cultivation optimally.
Then the SWOT matrix analysis results are:

**Table 4. SWOT Matrix Analysis**

| IFAS | Strength (S) | Weakness (W) |
|------|--------------|--------------|
| **Strength (S)** | 1. Production and productivity of superior commodity 2. Quality and diversity of UMKM products 3. Natural efficiency 4. Development of cultivation system | 1. Management quality 2. Development of harbor 3. Amount of processing business 4. People welfare 5. Income level |
| **Weakness (W)** | 1. raising the control of production activities 2. infrastructure development as effort to increasing the multiplier effect 3. increasing the unit process with raising supervision by the government 4. Raising income level and wealth by increase the opportunity business and employment absorption in community |
| **Oppportunity (O)** | 1. Multiplier effect 2. Quality of production facilities 3. Production, productivity, and result value 4. Marketing system 5. Business development system 6. Business opportunity and employment 7. Ecosystem | 1. increase its product and productivity by upgrading the quality and quantity production facilities 2. product diversification for marketing system development 3. preserving environmentally friendly harvest system 4. increase the system cultivation to enhance business opportunity |
| **Threat (T)** | 1. Free Pollution 2. Business Method | 1. raising the amount of production facilities with sustainable business management principle should be applied |

**Figure 1. SWOT Quadrant**
5. Conclusions
Increasing Minapolitan development strategies in Penajam Paser Utara (PPU) Region using Blue Economy concept could be realized by increasing its product and productivity by upgrading the quality and quantity production facilities, product diversification for marketing system development, preserving environmentally friendly harvest system, increase the system cultivation to enhance business opportunity. Other strategies that resulted from this study is raising the control of production activities, infrastructure development as effort to increasing the multiplier effect, increasing the unit process with raising supervision by the government, raising income level and wealth by increase the opportunity business and employment absorption in community. And finally, increasing the supervision of processing business and the amount of production facilities with sustainable management business principle should be applied.

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