

ANALYSIS OF THE ECONOMIC POTENTIAL OF GROUPEL FISH HATCHERY CULTIVATION AND ITS IMPACT ON COMMUNITY WELFARE

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ABSTRACT

The aim of this research is to formulate a potential strategy for grouper hatchery cultivation that is good for use in cultivation in Pasir Putih Village, Bungatan District, Situbondo Regency. The analytical method used in this research is a descriptive qualitative method using SWOT analysis. This research uses primary data by means of observation, interviews and questionnaires. The results of this research are that the obstacles to grouper hatchery cultivation are fish diseases caused by viruses and fish dying during delivery. However, the profitability of grouper hatchery cultivation is quite promising. This grouper hatchery cultivation has internal factors in the form of strengths including strategic location, availability of cultivation land, availability of labor, high potential for aquaculture. And the weaknesses include expensive capital, poor quality of human resource knowledge, high operational costs, climate change. As well as external factors in the form of opportunities including high market demand, opening up employment opportunities, high prices for grouper fish, increasing people's income. And threats include disease in fish, lots of competitors, fish dying during shipping, environmental pollution. In calculating the IFAS matrix with a score of 0.24 which includes a strength score of 2.15 and weaknesses with a score of 1.91 and the EFAS matrix with a score of 0.38 includes an opportunity score of 2.15 and a threat score of 1.76 which determines Grouper hatchery cultivation in Pasir Putih Village is located in quadrant I position with favorable conditions, has great strength and utilizes opportunities effectively, this grouper hatchery cultivation can use aggressive strategies. Then, the impact of grouper hatchery cultivation on the people of Pasir Putih Village is very profitable because it can open up job opportunities and improve the standard of living of the affected people.

Keywords: Economic Potential, SWOT Analysis, Grouper Fish Hatchery

INTRODUCTION

The fisheries sector is one of the sectors that is a mainstay for supporting the economy in Indonesia. This is because 62% of Indonesia's territory is water. Then from that, coastal areas have an important role for development by optimizing all high potential in supporting fisheries management, by utilizing sea fishing and fish cultivation. According to the Situbondo Regency Fisheries Service, development in the fisheries and marine sector in Situbondo is highly prioritized because its natural resources are very supportive in addition to the supporting capacity of fisheries and marine businesses that have the potential to be utilized.

Grouper cultivation is currently starting to develop in Situbondo Regency by means of hatcheries. This grouper cultivation uses pond media, if you look at the opportunities, grouper fish are fish that have quite a high selling value. The volume and production value of grouper fish in Situbondo Regency in 2003-2006 increased, the value of grouper production in 2005 increased by 75.05% and in 2006 it increased by 1,820.55%. The increase in 2006 was due to the number of business actors in floating net cages, then support from the fisheries cultivation intensification program from the East Java Province Maritime and Fisheries Service. However, in 2007-2008 the value of grouper production decreased by 94.46% due to the reduction in the number of business actors investing in grouper cultivation (Agustina, Sri Sukari et al., 2010).

Grouper fish are fish whose habitat is in shallow seas. Grouper is also called grouper or grouper fish. Types of grouper fish that live in Indonesia include mouse or duck grouper, batik grouper, tiger grouper, clam grouper, kertang grouper, and sunuk grouper. Grouper fish has high nutritional content, so it is beneficial for human growth. Grouper is a marine fishery commodity that has high economic value.

Pasir Putih Village, Bungatan District, Situbondo Regency has high potential for cultivating fish, including grouper itself. Grouper cultivation in Pasir Putih Village involves hatching grouper fish in ponds. In contrast to cultivating grouper in floating net cages above the sea, this grouper hatchery only requires a pond. This grouper hatchery will be used by floating net cage grouper cultivation businesses, because the seeds managed in the grouper hatchery will be marketed to floating net cage fish cultivation businesses so that they can be redeveloped into grouper fish that are ready to be marketed and consumed. The lack of supply of log size grouper makes floating net cage grouper cultivators quite difficult and can make their business fail. So, with this grouper hatchery, it can help the cultivation of grouper in floating net cages. The possible market reach makes investors look at this grouper hatchery cultivation business.

Based on the above phenomenon, researchers are interested in conducting research with the aim of finding out potential strategies for grouper cultivation and knowing the impact of grouper cultivation on the economy and welfare of the people of Pasir Putih Village, Bungatan District and knowing the impact of grouper cultivation on the welfare of the local community of Pasir Putih Village, Bungatan District.

LITERATURE REVIEW

Development Economic Theory

Development economics is an important branch of economics that analyzes several very broad fields. Important fields studied in development economics include capital planning, foreign trade, foreign aid issues, agricultural and industrial issues, and educational issues which dominate its role in triggering development. . Economic development has the aim of increasing national income and increasing productivity. There are several factors that influence economic development, namely economic factors and non-economic factors. Economic development itself is a process that has various elements. Economic development also has benefits such as increasing output and wealth of society and its economy. (Irawan & Suparmoko, 1983)

According to Adam Smith, economic development will take place by requiring specialization or division of labor so that labor productivity continues to increase. Then A. Smith stated that if there is sufficient capital accumulation and a market, there will be a division of labor and the potential to increase labor productivity.

The essence of the discussion of development economics is divided into two. First, part of the discussion of economic development is descriptive and analytical in nature, aiming to provide a reflection on the nature of the economy and society in developing countries and their involvement with the possibilities of economic development. Second, the discussion provides various options and development procedures that can be implemented to speed up the process of economic development in developing countries (Subandi, 2016).

Economic Theory of Human Resources

Human Resources are sources of strength obtained from humans, strength that comes from humans is also called energy. Apart from being obtained from humans, strength, power and power can also be obtained from natural elements such as water power, steam power, wind power and solar power, then if used on humans it is known as manpower or labor (Sedarmayanti, 2009).

The essence of Indonesia's national development is the development of the entire Indonesian nation and all Indonesian society. A large population is one of the basic capital that is profitable for development if maximized. The population does have a positive impact on development, but it could be negative and have fatal consequences for Indonesia's sustainable development. From the joint long-term development plan II, the main goal of national development is to improve the quality of the country and its society. There are three dimensions of humans in development, namely as the center of decision making for development, as implementers of decisions, and as recipients of the results of decisions made, which need to be seen as an integral whole (Hasibuan, 1996)

Economic Theory of Natural Resources and the Environment

Natural Resources (SDA) do not only concern land, minerals and fuel, but also labor. Natural resource goods are not free, so to obtain them requires sacrifice, they can be said to be rare and have alternative uses. Alternative uses include current use and future use. With the aim of maximizing production, both society and individuals must choose resources well to meet needs.

Natural Resources (SDA) are everything that is under and above the earth, including land. Therefore, natural resources are anything that exists on earth that has potential and is not yet

involved in the production stages to increase the supply of goods and services in the economy. Resource goods are natural resources that have been utilized from the earth and are ready to be used and combined with other production factors so that they can produce new products in the form of goods and services for both producers and consumers (Suparmoko, 2010)

Economic growth with the availability of natural resources is not the same as economic growth with the availability of resources used in the production stage. If economic growth becomes faster, the more natural resources needed for production will also increase, this could reduce the presence of natural resources on earth. Therefore, the more rapid the country's economic development, the more natural resources will be taken from the earth and the supply of natural resource reserves will decrease. There is a positive relationship between the quantity of natural resources and economic growth, whereas there is a negative relationship between economic growth and the supply of natural resources. The more rapid development, the greater the amount of natural resources needed, in other words, the decreasing supply of natural resources, and this will hinder sustainable economic growth.

Economic Potential Theory

Economic potential is the capacity of an area to produce economic production within a certain period of time. There are several factors that influence potential, namely government procedures, human resources, natural resources, technology and infrastructure, as well as global market conditions. Each region has different potential and can improve the welfare of its people and achieve sustainable economic development by utilizing its potential effectively.

A region must adapt its development to the conditions of its potential and the opinions of its people, if it is not in accordance with the existing potential then the use of resources or potential will be less effective, which can result in hampered development in the area. Economic growth is a benchmark used to increase development in regions with various economic sectors which will reflect the level of change in the regional economy (Badri, 2015)

The government and regional communities must know the economic potential of the resources needed in designing and developing the regional economy. So it is important for government participation in creating new economic breakthroughs that can increase production, the economy and income. The government must be able to carry out economic activities that have the potential to meet regional needs and improve government expertise to meet market demand.

Fisheries Cultivation Theory

Aquaculture is known as aquaculture, where aquaculture comes from the English language, namely aquaculture, which means (aqua = waters, culture = cultivation) which in Indonesian is aquaculture. Aquaculture is less well known and widely used in Indonesia, usually used by academics and researchers. It is the term cultivation that is often and widely used, both among practitioners of cultivation activities, government officials, academics and researchers, as well as the general public.

The term fish cultivation is used in fisheries statistics to record data regarding fish cultivation, and the term capture fisheries is used for fishery production activities using the catching process. Academic circles are trying to market the term aquaculture as a replacement for fish cultivation as a form of approach to the term aquaculture that has gone global.

Aquaculture or what we know as fish farming is defined as an activity that produces aquatic organisms in a controlled situation to make a profit. This means that aquaculture

activities are economic activities that lead to industry. One of them is grouper fish hatchery cultivation.

Grouper hatchery cultivation is cultivating grouper fish in a controlled environment, selecting seeds, feeding them, monitoring the health of the fish, and managing the water environment, which usually requires media such as ponds or tanks. One of the businesses in Pasir Putih Village is the cultivation of grouper fish hatcheries as a form of utilizing the potential of natural resources owned by Pasir Putih Village.

Poverty Theory

BPS (Central Statistics Agency) states that poverty is a situation where a person is unable to fulfill his daily needs. Poverty is basically related to a person's limited access to health, education and infrastructure facilities. Poverty is a big problem experienced by every country.

Poverty arises when a person or group cannot meet the level of economic prosperity which is considered the most basic need of life. Understanding the term poverty is a state of lack of money and goods to ensure survival (Machmud, 2016).

Poverty reduction is an important agenda for every country that has a poverty problem. The government's main focus in overcoming poverty in creating a poverty alleviation strategy is to increase community access to basic services, comprehensive development, community empowerment and social protection programs.

The poverty line is a benchmark for determining poor and non-poor people. Poor people are people whose average monthly expenditure is below the poverty line. In implementing policies that can be carried out effectively and efficiently, poverty must be viewed broadly. Poverty is not only about the large number of poor people, but also the large distance between the average expenditure of poor people and the poverty line.

Low education and skills are identification of poor people which can influence job choices. The poverty line is the percentage of poor people who are below the poverty line. BPS uses the concept of the ability to meet basic needs in measuring poverty (Machmud, 2016)

Public welfare

Quoted from BPS (Central Statistics Agency) community welfare is a situation where spiritual, material and social needs can be met so that they are able to live a decent life and can develop themselves. Community welfare refers to general situations such as health, happiness, security and prosperity that can be felt by groups of people in an area. Welfare includes several aspects such as health, economy, education, social justice and the environment. Community welfare can be said to include all contributions to a good life for people in a group.

One of the important factors in community welfare is the economy and the environment. In coastal or coastal areas, a group is very dependent on marine resources which influence their lives. One way to improve the welfare of coastal communities is to develop the economy in the marine sector. Programs that can be carried out to minimize economic risks regarding the uncertainty of marine products include fishermen skills programs, diversification of livelihoods, and sustainable resource management. Because the important factors in the welfare of society are the economy and the environment, it is important to protect the environment to guarantee the survival of natural resources (SDA) as the main source of people's livelihood.

RESEARCH METHODS

Types of research

The research method used is descriptive qualitative where this research method is usually used to examine the condition of natural objects. Qualitative research focuses more on the stages and meaning of the results. Qualitative research focuses on institutions, objects and people to understand a particular phenomenon. Qualitative methods are used to answer the "what" and "how" and "why" questions about a phenomenon. Qualitative research has a subjective and inductive nature. Qualitative methods are research that develops a theory that has the principle of using observation and interviews.

Method of collecting data

This research uses primary data which uses data collection by observation, interviews and questionnaires. Observations are carried out to observe objects that will be carried out directly at the research location in order to obtain information that will be needed during the research. Interviews in this research were used to obtain in-depth information from informants who had been determined by taking a sample of informants using purposive sampling techniques. This interview was conducted with a list of questions that had been compiled and prepared by the researcher. Then a questionnaire was used in this research with the aim of collecting data and information to become supporting data for the research.

Data analysis method

The focus of this research is to determine the influence of grouper cultivation to see the impact on the economy and community welfare using SWOT analysis. SWOT analysis itself is used to find important aspects such as strengths, weaknesses, opportunities and threats that exist in a business or company. Then, four aspects can be developed to increase strengths, reduce weaknesses, take advantage of opportunities and avoid threats, which is known as the SWOT strategy.

Table 1: SWOT Strategy

	STRENGTHS	WEAKNESSES
	Positive characteristics and advantages of the issue, situation, or technique	Negative characteristics and disadvantages of the issue, situation, or technique
OPPORTUNITIES	S-O Strategy/Analysis	W-O Strategy/Analysis
Factors, situations that can benefit, enhance or improve the issue, situation, or technique	<i>Using strengths to take advantage of opportunities</i>	<i>Overcoming weaknesses by taking advantage of opportunities</i>
THREATS	S-T Strategy/Analysis	W-T Strategy/Analysis
Factors, situations that can hinder the issue, situation, or technique	<i>Using strengths to avoid threats</i>	<i>Minimize weaknesses and avoid threats</i>

Then this analysis also uses the Internal Factor Analysis Summary (IFAS) and External Factor Analysis Summary (EFAS) which are used to determine the SWOT analysis graph which can see whether a company or business is in a good position or not. There are four quadrant positions in each position. The first, quadrant I, where this position describes favorable conditions because of the strengths possessed and opportunities that are utilized effectively and the recommended strategy is an aggressive strategy. Second, quadrant II where in this condition there are threats but the strength of the business can still help well in this condition the strategy recommended to be implemented is a diversification strategy. Third, in quadrant III, in this condition the opportunities are very large but have weaknesses, therefore the recommended strategy for this condition is the turn around strategy. Fourth, quadrant IV, where this condition describes a bad situation because of many weaknesses and many threats and it is recommended to implement a defensive strategy as in Figure 1.

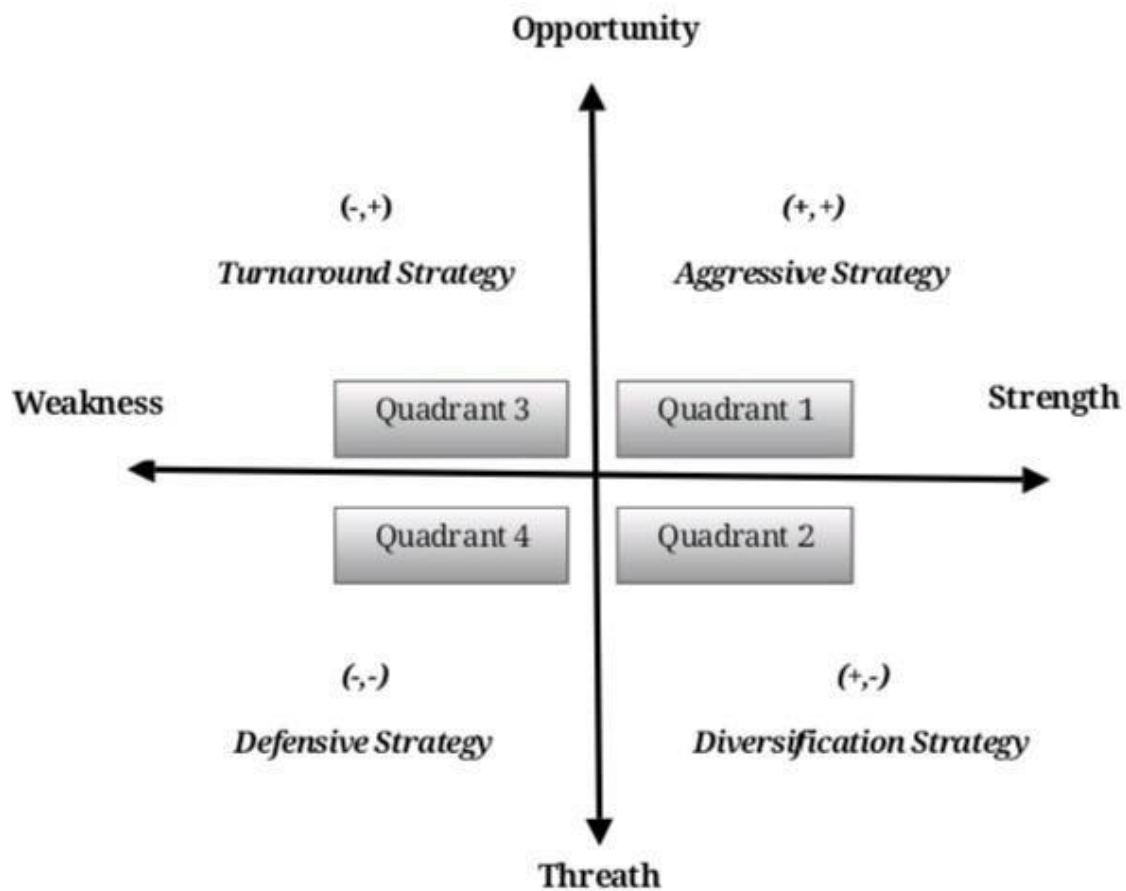


Figure 1: SWOT Quadrant Scheme

RESULT ANALYSIS

Cultivation Locations and Communities

Situbondo Regency is a district whose territory is located in the east of East Java Province which is famous for its White Sand Beach tourism. The location of this research is in Pasir Putih Village, Bungatan District, Situbondo Regency. Pasir Putih Village has an area of 169.95 ha/m². The distance from Pasir Putih Village to the city center of Situbondo Regency is 35 km. This village has territorial boundaries to the north bordering the Java Sea, to the south bordering Patemon Village, to the east bordering Kendit District, and to the west bordering the Java Sea. Pasir Putih Village itself has high marine potential. The village's position next to the sea has attracted people's interest in turning this opportunity into a sea-related business.

Based on the BPS (Central Statistics Agency) of Situbondo Regency, the population of Pasir Putih Village is recorded at 3,826 people. In detail, the male population is 1,895 people, then the female population is 1,931 people. The professions commonly pursued by the people of Pasir Putih Village include farmers, fishermen, livestock breeders, private employees, traders and entrepreneurs. Because the potential of the sea and cultivation potential as well as the availability of land in this village is very high, the village people take advantage of it by working and doing business as fish farmers and fish farmer workers. Meanwhile, the fisheries livestock in the village are grouper fish cultivation and tiger prawn cultivation.

Results of Interviews with Grouper Farming Owners and Employees

From the results of interviews with several people as informants who had been determined by the researcher, the researcher obtained information that some of the informants were owners and technical personnel as well as employees. The employees in grouper cultivation were the people of Pasir Putih Village. Income from grouper cultivation employees is approximately Rp. 1,000,000 to IDR 3,000,000 and will get additional income or a bonus calculated at 20% of the percentage of sales of grouper seeds, the bonus amount can reach around IDR 2,000,000 to IDR 10,000,000. The grouper seed cultivation business also has freelance employees who will be called to work if they need more work in sorting the size of grouper seed and also the harvesting process, who are paid IDR 50,000/day. The capital from this grouper cultivation business is not small and usually comes from individuals who invest in running a grouper cultivation business or it could be mutual cooperation between business people. Fish seeds marketed measuring 2.7 cm to 3.5 cm are sold per fish at a price of IDR 2,000 to IDR 2,500, while those measuring 4 cm are sold per cm at a price of IDR 700 to IDR 1,000.

To start a grouper hatchery cultivation business, a lot of capital is required, but it is paid off by the profits created when the business is successful. This grouper hatchery cultivation business also has obstacles that need to be taken into account, such as the measurement and use of sea water used during hatching must be taken into account, apart from that, the sea water temperature must also be ensured to be appropriate, namely 30 to 31°C. Apart from water content, there are also problems such as disease in fish which is usually caused by viruses which make the fish deformed and unmarketable or even cause the fish to die. The promising market share is also a reason that attracts investors' interest. Results from seedlings that are ready to be marketed will usually be purchased from fellow local or regional cultivators and then sent for orders outside cities and outside islands such as Kalimantan, Bali, Ambon, or exported to Vietnam, China, Malaysia and other countries. However, there are also obstacles when sending

grouper seeds, such as death on the way, which can result in losses in terms of travel and reduced profits due to compensation for dead fish.

SWOT Analysis Identify Internal Factors and External Factors

The SWOT analysis weighting elements are based on the potential for grouper hatchery cultivation and the socio-economic conditions of the farmers. Then, Internal Factors were generated in the form of strengths of grouper hatchery cultivation and weaknesses of grouper hatchery cultivation as well as External Factors in the form of opportunities for grouper hatchery cultivation and threats to grouper hatchery cultivation. Each detail of the internal factors is strength in the form of (1) strategic location, (2) availability of cultivation land, (3) availability of labor, (4) high potential for aquaculture. And the weaknesses are (1) expensive capital, (2) poor quality of human resources knowledge, (3) high operational costs, (4) climate change. As well as external factors, namely opportunities in the form of (1) high market demand, (2) opening up employment opportunities, (3) high prices for grouper fish, (4) increasing people's income. And threats include (1) disease in fish, (2) large numbers of competitors, (3) fish dying during shipping, (4) environmental pollution.

IFAS and EFAS matrices

After identifying the internal factors and external factors of grouper hatchery cultivation, we proceed to calculating the internal factors of grouper hatchery cultivation which includes four strengths and four weaknesses. As presented in table 2. As presented in table 2, the total score of the internal factors is 0.24 with details of a strength score of 2.15 and a weakness score of 1.91.

Table 2. IFAS Matrix

No	<i>Strength</i>	Weight	Rating	Score
1.	Strategic location	0,13	4,13	0,53
2.	Availability of cultivation land	0,13	4,27	0,57
3.	Availability of Labor	0,13	4,27	0,57
4.	The potential for aquaculture is high	0,12	3,93	0,48
Subtotal				2,15
No	<i>Weakness</i>	Weight	Rating	Score
1.	Expensive capital	0,13	4,27	0,57
2.	The quality of HR knowledge is lacking	0,10	3,07	0,29
3.	High operational prices	0,13	4,27	0,57
4.	Climate change	0,12	3,93	0,48
Subtotal				1,91
Total				0,24

Table 3. EFAS Matrix

No	<i>Opportunity</i>	Weight	Rating	Score
1.	High market demand	0,13	3,93	0,50
2.	Opening job opportunities	0,14	4,27	0,58
3.	The price of grouper is high	0,13	3,93	0,50
4.	People's income increases	0,13	4,20	0,57
Subtotal				2,15

No	Threat	Weight	Rating	Score
1.	Fish Disease	0,13	4,00	0,51
2.	Competitors	0,12	3,73	0,45
3.	Death Fish in Shipping	0,11	4,47	0,39
4.	Environment Polution	0,12	3,60	0,42
Subtotal				1,76
Total				0,38

And for the external factors of grouper hatchery cultivation, the calculation results have been presented in table 3. Details of the total score for external factors are 0.38 with an opportunity score of 2.15 and a threat score of 1.76.

The results of the IFAS and EFAS matrix calculations will then be depicted in a SWOT analysis diagram, with the aim of knowing what strategies will be used for grouper hatchery cultivation. To determine at what point the hatchery cultivation of grouper fish will eat, calculations will be carried out by:

Strengths (S) – Weaknesses (W):

$2.15 - 1.91 = 0.24$ which rounds to 0.2 as (X axis)

Opportunities (O) – Threats (T):

$2.15 - 1.91 = 0.38$ which rounds to 0.4 as (Y axis)

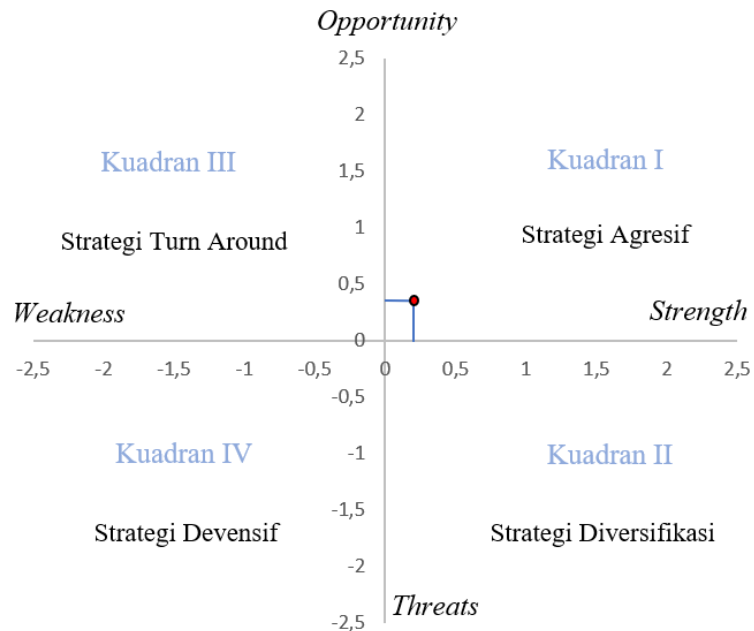


Figure 2. SWOT diagram

INTERPRETATION

The results of the analysis of grouper hatchery cultivation are in quadrant I position, namely the strategy used is an aggressive strategy, so the grouper hatchery cultivation business is in a favorable situation with its strengths and can take maximum advantage of opportunities. With strategy details as follows:

- Carrying out grouper cultivation business not only in one place by utilizing location and land availability so that it can meet market demand (S1,2; O1)
- By cultivating grouper fish in various areas of Pasir Putih Village to meet market demand which will be marketed locally in the village itself and marketed outside the city and abroad (S1;O1)
- Taking advantage of the high potential for successful grouper cultivation, you can carry out a grouper cultivation business and create new jobs for the people of Pasir Putih Village (S3,4;O2)
- Cultivating grouper fish by utilizing available land and existing labor because the price of grouper fish is high can help increase income for local communities (S2,3; O3,4)

Table 4. SWOT Matrix

	S-Strenght	S-Weakness
	<ol style="list-style-type: none"> 1. Strategic location 2. Availability of cultivation land 3. Availability of labor 4. High potential for aquaculture 	<ol style="list-style-type: none"> 1. Expensive capital 2. The quality of HR knowledge is lacking 3. High operational prices 4. Climate change
O – Opportunity	S-O Strategy	W-O Strategy
<ol style="list-style-type: none"> 1. High market demand 2. Opens up job opportunities 3. The price of grouper is high 4. People's income increases 	<ol style="list-style-type: none"> 1. Doing a grouper cultivation business is not only in one place by utilizing location and land availability so that it can meet market demand (S1, 2, O1). 2. Cultivate grouper fish in various areas of Pasir Putih to meet market demand which will be marketed in the local market of the village itself, marketed outside the city and abroad (S1, O1). 3. Taking advantage of the 	<ol style="list-style-type: none"> 1. Collaborate between grouper fish farmers to minimize the amount of capital and operational costs required to cultivate grouper fish and obtain high profits (W1, 3, O1, 3). 2. Conduct training and outreach to the Pasir Putih Village community in overcoming climate change for grouper cultivation so that employment opportunities as grouper cultivation workers can be optimized

	<p>high potential for success in grouper cultivation, you can carry out a grouper cultivation business and create new jobs for the people of Pasir Putih Village (S3, 4, O2).</p> <p>4. Cultivating grouper fish by utilizing available land and existing labor because the price of grouper fish is high can help increase the income of local communities (S2, 3, O3,4).</p>	<p>so as to increase community income (W2, 4, O2, 4).</p>
<p>T-Threats</p> <ol style="list-style-type: none"> 1. Fish Disease 2. Competitors 3. Death Fish in Shipping 4. Environment Pollution 	<p>S-T Strategy</p> <ol style="list-style-type: none"> 1. Utilize the existing workforce to maintain and care for grouper fish properly to avoid diseases that affect the quality of grouper fish (S1, T1). 2. Utilize strategic locations and use of existing land so that grouper cultivation is not limited to one location so that it remains competitive (S1, 2, T2). 3. Properly prepare the grouper fish to be sent and double check the quality of the fish so that it is suitable for marketing (S4, T3). 4. Utilize good land to maintain cultivation ponds properly to minimize pollution of sea water and the environment (S2, T4). 	<p>W-T Strategy</p> <ol style="list-style-type: none"> 1. Grouper fish farming workers and owners take part in training and socialization about grouper farming so that they can improve their abilities in grouper farming and can innovate so they can remain competitive, as well as easily carry out good fish maintenance and good fish delivery during marketing (W2, T1, 2, 3). 2. Grouper farming workers care for fish intensively to avoid disease during times of uncertain climate change and a polluted environment (W4, T1, 4).

CONCLUSION

This research resulted in the conclusion that grouper hatchery cultivation has internal factors in the form of strengths and weaknesses with details of each strength in the form of (1) strategic location, (2) availability of cultivation land, (3) availability of labor, (4) potential for aquaculture tall. And the weaknesses are (1) expensive capital, (2) poor quality of human resources knowledge, (3) high operational costs, (4) climate change. As well as external factors, namely opportunities and threats, detailed opportunities (1) high market demand, (2) opening up employment opportunities, (3) high prices for grouper fish, (4) increasing people's income. And threats include (1) disease in fish, (2) large numbers of competitors, (3) fish dying during shipping, (4) environmental pollution.

The results of the IFAS and EFAS calculations for grouper hatchery cultivation are that IFAS received a score of 0.24 with details of strength (strength) of 2.15 and weakness (weakness) of 1.91. Then EFAS got a score of 0.38 with details of opportunities (opportunities) of 2.15 and threats of 1.76 which resulted in the X axis (0.2) and the Y axis (0.4) making this grouper fish hatchery cultivation is located in quadrant I position where this condition is very profitable for the development of the grouper hatchery cultivation business using an aggressive strategy, with an explanation of the strategy as follows:

- Carrying out grouper cultivation business not only in one place by utilizing location and land availability so that it can meet market demand (S1,2; O1)
- By cultivating grouper fish in various areas of Pasir Putih Village to meet market demand which will be marketed locally in the village itself and marketed outside the city and abroad (S1;O1)
- Taking advantage of the high potential for successful grouper cultivation, you can carry out a grouper cultivation business and create new jobs for the people of Pasir Putih Village (S3,4;O2)
- Cultivating grouper fish by utilizing available land and existing labor because the price of grouper fish is high can help increase income for local communities (S2,3; O3,4)

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