



Strategy for Improving Tila Fish Cultivation Businesses (*Oreochromis niloticus*) In South Bolaang Mongondow District

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Abstract: Research on tilapia cultivation business strategies was carried out from June to August 2023. The research location is South Bolaang Mongondow Regency. Freshwater cultivation as a production activity is oriented towards providing and multiplying seeds, growing them well, reducing mortality and improving quality so that they can be sold and make a profit. Freshwater aquaculture production activities are carried out starting from seeding, nursery and grow-out. The selection of production activities can take into account several things, including commodities, mastery of technology, availability of land, capital, and others. The results of the interviews and questionnaires were then analyzed using the SWOT method.

Data Analysis To determine the characteristics of fish entrepreneurs and the profiles of farmers, qualitative descriptive analysis was used. The data is displayed in the form of tables or figures, including: age, length of education, business experience, number of family dependents, business scale, use of capital, and number of workers. Meanwhile, to formulate business development strategies, SWOT (Strength, Weaknesses, Opportunities, etc.) analysis is used. Threats) which will make it easier to formulate various new strategies by grouping each problem.

Based on the results of research on strategies for increasing tilapia cultivation businesses in South Bolaang Mongondow Regency, several things can be concluded as follows:

The condition of tilapia farmers in South Bolaang Mongondow Regency is in quadrant I with coordinates (0.05:0.15), indicating that this cultivation business has great opportunities and strengths.

The right alternative strategy to apply in business development is to use strategySO. After combining strength with opportunity and strategySO(Strength - Opportunity), then the factors that must be maintained to be able to take advantage of existing opportunities are obtained, namely: (1) Utilizing the potential of a fairly large pond area and the large number of fish farmers by means of fisheries extensification, namely increase productivity and income from cultivation by expanding cultivation land to meet market needs, (2) Increasing cooperation in cultivation development, (3) Increasing the role of cultivator institutions and the government to optimize the performance of pokdakan through training to optimize and increase production. Internal and external factors that are very prominent in the tilapia cultivation business strategy in South Bolaang Mongondow Regency are: tilapia fish commodities that are easy to cultivate, the existence of empowerment programs from regional and village governments, low levels of education, dependence on commercial feed, demand for fish in these days are great, cultivation is not a priority business and feed prices are high. There are obstacles in the strategy for developing freshwater fish cultivation in South Bolaang Mongondow Regency from various sectors. These include natural factors, business capital, marketing strategies, and skills in developing a freshwater fish cultivation business. This means that the obstacles experienced by freshwater fish cultivators in the fish cultivator group are internal and external.

Keywords: Tilapia Aquaculture, SWOT Analysis, South Bolaang Mongondow

INTRODUCTION

Aquaculture in Indonesia is an important component in the fisheries sector, one of which is tilapia cultivation. Economically, the tilapia cultivation business is very profitable and also very supportive for fulfilling community nutrition. In line with increasing public awareness of the benefits of fish, the level of demand for meat is increasing (Anonymous, 2011). The need for fish for the community is increasingly important, so it is very natural that freshwater fisheries businesses must be encouraged to develop. Businesses in the freshwater fisheries sector have very good prospects because up to now fish consumption, whether in the form of fresh fish or processed fish, is still not sufficient for consumer needs (Murtidjo Bambang A, 2001).

Fish cultivation is an important component of the fisheries sector, related to supporting national food availability, creating income and employment and supporting the development of the rural economic sector (Negara et al., 2017). One type of fishery commodity that is cultivated and has high economic value is tilapia. Tilapia is an introduced type of fish that has quite high economic value in several Asian countries, including Indonesia (Lasena et al., 2019). Tilapia is a fishery commodity that is popular with the community in meeting the need for animal protein because it has thick flesh and a delicious taste (Mulyani, 2014). Fish farming is a business activity that is able to expand employment opportunities and provide broad economic services to the community, it can play a role in the process of equalizing and increasing people's income as well as encouraging economic growth and economic stability. Fisheries are all fish cultivation and management activities to marketing the results. Meanwhile, fisheries resources are all animals and plants that live in waters (both on land and sea), therefore fisheries can be divided into land fisheries and sea fisheries (Mubiyarto, 1994).

Fisheries cultivation can be carried out on land and at sea, starting from mountainous areas, hills (highlands), lowlands, such as beaches, river estuaries, bays, straits, protected shallow seas, coral reefs (reef flats) to up to the open sea/deep sea (open seas/deep seas). As long as adequate water resources are available quantitatively and qualitatively, fisheries cultivation can take place in the spatial landscape as mentioned above. In mountainous, hilly and highland areas there are water resources in the form of springs, rivers (rapids) and highland lakes (volcanic lakes), while in lowland areas there are rivers (calm currents), lowland lakes, swamps and wells. In coastal areas there are beaches, river estuaries and brackish swamps, while in marine areas there are shallow sea waters, bays, straits and open sea/deep sea waters. Shallow sea waters are usually deep coral waters which generally consist of reef flats and lagoons (goba).

Freshwater cultivation as a production activity is oriented towards providing and multiplying seeds, growing them well, reducing mortality and improving quality so that they can be sold and make a profit. Freshwater aquaculture production activities are carried out starting from seeding, nursery and grow-out. The selection of production activities can take into account several things, including commodities, mastery of technology, availability of land, capital, and others (Petrus Hary Cahya, 2018).

It turns out that aquaculture has more than one definition, which correlates with the development of aquaculture itself, both as an economic activity, technology, production and conservation. The scope of cultivation can be viewed from the activities, space (spatial) and media (water sources) used. Reviewing the scope from several points of view provides an understanding of the breadth of the scope of fisheries cultivation. Furthermore, when viewed from its objectives,

aquaculture does not only produce aquatic biota for consumption purposes (food production). There are many objectives of fish cultivation, including improving fish stocks in nature (restocking), production of bait fish, recreation, conservation, ornamental fish production, recycling of organic materials, and production of industrial raw materials (Efendi, 2004). Sustainable fisheries are an effort to combine social, economic and ecological goals. The concept of sustainable fisheries emerged from environmental awareness. Sustainable fisheries were developed due to concerns about the increasingly declining ability of the aquatic environment to support the availability of fish resources. The initial idea of sustainable fisheries is to be able to catch or harvest fish resources at a sustainable level, so that fish populations and production do not decline or become available over time. Fish resources are renewable resources, however this does not mean that fish resources can be utilized without limits. If fish resources are used without limits or irrationally and exceed the maximum carrying capacity of the ecosystem, it can result in damage and reduction in the fish resources themselves, even if not immediately resolved it can also result in the extinction of the fish resources (Jamaludin Saleh et al, 2021) . Sustainable fisheries activities can be achieved through appropriate and effective fisheries management, which is generally characterized by increasing the quality of life and human welfare as well as maintaining the sustainability of fish resources and the health of the ecosystem. Furthermore, Charles (2001) in his paradigm of the Sustainable Fisheries System stated that sustainable fisheries development must be able to accommodate 4 aspects

Freshwater fish farming is a type of fish that can be cultivated and can be used as a business. As we know, fish meat has good nutritional content and is needed by the body. Fish is seen as a food that produces good animal protein compared to other food sources. Fish meat also contains omega-3 which is very useful for the development of intelligence and is very good for consumption, especially by children. Apart from that, omega-3 can also reduce cholesterol in the blood.

2.3 Classification and Morphology of Tilapia

Tilapia is a freshwater fish that is able to live and reproduce in tropical and temperate areas (Angienda et al., 2010). Tilapia fish have good adaptability to the environment and are easy to grow, thus supporting the development of cultivation businesses in the community (Lasena et al., 2019). Looking at the economic value and capabilities of tilapia, the nutrition contained is also very important to know. Nutrition is an important factor that determines the level of health and harmony between physical and mental development (Alfyan, 2010).

Tilapia (*Oreochromis* sp.) is a fishery commodity that is quite popular among Indonesian people. Tilapia itself comes from East Africa, specifically in the waters of the Nile River and the surrounding lakes. However, now tilapia has spread to almost all countries, both tropical and subtropical. Currently there are three types of tilapia, namely ordinary tilapia, red tilapia and albino tilapia.

Tilapia is a typical Indonesian name given by the Government through the Director General of Fisheries. Known by the Latin name *Oreochromis niloticus*, this tilapia fish is very easy to cultivate, because it is considered quite strong against diseases commonly experienced by other types of fish, so maintenance is easy and low cost, but the results are relatively profitable. A pair of breeding tilapia can produce a very large number of eggs, namely around 250 to 1000 eggs. This is what makes tilapia a profitable freshwater fish commodity.

In the wild, tilapia are often found in freshwater waters such as rivers, reservoirs, swamps or lakes. This fish is also an omnivorous fish or eats everything. Tilapia itself is a fish that can spawn throughout the year and can lay up to 500-1000 eggs at a time..

There are three types of water fish cultivation systems that are commonly carried out, namely: traditional/extensive, the pond used is a pond made entirely of soil. Semi-intensive, the pool used is a

pool where the pool part (the embankment walls) is made of walls while the bottom of the pool is made of soil. Intensive, the pool used is a pool where the entire pool consists of walls. Based on technical understanding (Susanto, 2012), a pond is an artificial body of water that is limited in area and deliberately created by humans so that it is easy to manage in terms of water management, types of cultivated animals and production targets. Apart from being a living medium for fish, the pond must also be able to function as a natural food source for fish, meaning that the pond must have the potential to grow natural food.

A pond is a land created to hold a certain amount of water so that it can be used to raise fish or other aquatic animals. Based on technical understanding, a pond is an artificial body of water that is limited in area and deliberately created by humans so that it is easy to manage in terms of water management, types of cultivated animals and production targets (Arsyad, 2014).

The cultivation system is also implemented based on domesticated cultivars/fish. The known fish farming systems are monoculture and polyculture. The cultivation system in South Bolaang Mongondow Regency uses a monoculture system. Monoculture comes from the words mono which means one and culture means cultivation. Monoculture means cultivation with one type of fish in one rearing pond. The type of fish kept can be adjusted to people's preferences and of course what sells well on the market. The monoculture system has several advantages, including more focused maintenance, easier feeding rations because each type of fish has different nutritional needs, and minimum competition for food and space (Petrus, 2018).

Fish cultivation carried out by the community at the research location is a monoculture cultivation system. Murachman, 2010. explains that monoculture is keeping fish in one pond with only one type of fish. Based on survey results, the fish cultivated by the cultivating community are tilapia, catfish, koi fish and the most widely cultivated type of fish is tilapia. In general, fish cultivation utilizes land that is privately owned by the fish cultivating community. The types of cultivation activities carried out at the research location are mostly fish cultivation activities which are carried out using an extensive system (simple technology). The ponds used are ponds made entirely of soil, and some are a small part intensive, namely using concrete ponds and semi-intensive ones where The type of pool used is a pool with an earthen base and concrete walls. In one pond, there is only 1 type of fish kept, namely in each pond, namely nia fish, catfish and koi carp. Most of the existing land and ponds are managed privately and some are managed in groups. Land ponds are also the people's choice for cultivating fish with a water source using irrigation channels to fill the pond and that is very helpful and reduces costs for the pond.

The potential for freshwater fisheries cultivation in South Bolaang Mongondow Regency is demonstrated by the activities of Tilapia fish farmers. However, the production of tilapia fish is also very dependent on the cultivation technology used (Murtidjo, 2007). This is because the method of cultivating tilapia fish is simpler and easier for most fish farmers to do. The Tilapia fish cultivation business activity itself has long been carried out by cultivators of South Bolaang Mongondow Regency with simple knowledge and technology. This commodity is very popular because the selling price is affordable, easy to develop and tastes delicious.

RESEARCH METHODS

Research on tilapia cultivation business strategies was carried out from June to August 2023. The research location was in South Bolaang Mongondow Regency. This research uses a survey method. The survey method is research that measures existing symptoms without investigating why these symptoms exist (Mudlofar, 2012). Survey research is a type of research that takes samples from a population and uses questionnaires as the main data collection tool. The number of samples

taken was 35 people from 126 tilapia farmers. This is in accordance with the opinion of Ashari (2011), regarding sampling techniques. If the number of subjects is less than 100, it is better to take all of them. However, if the number of subjects is large, between 10-15% or 20-25% can be taken. The subjects taken were 25%.

The primary data needed in this research is the number of groups or people who have carried out cultivation activities in South Bolaang Mongondow Regency. Next, map the level of education, land area and fish cultivation techniques of cultivation business actors. Secondary data is data obtained from other parties or from related agencies or based on certain sources, including the South Bolaang Mongondow Regency Fisheries Service and other supporting data obtained from related research reports, journals, bulletins, the internet and other sources.

The data required in this research was collected through three stages, namely, observation, interviews and documentation:

1. Observation (Observation)

Observation is part of data collection. Observation means collecting data directly from the field. Observed data can be in the form of a description of attitudes, behavior, actions, overall interactions between humans. Observation is an activity of direct observation and recording of research objects systematically with monitoring and evaluation sheets, to obtain data and facts about the actual situation.

2. Interview

An interview is a two-way communication or conversation carried out by an interviewer and an informant to seek information that is relevant to the research objectives. Interviews are used as a technique for collecting data, if the research will carry out a preliminary study to find problems that must be researched. Interviews are carried out using a list of questions. Sampling was carried out by conducting interviews and filling out questionnaires with respondents as well as collecting data or references from agencies related to the research. To facilitate analysis, data tabulation was carried out then the data was analyzed based on the objectives to be achieved with the analytical tools that have been determined. Interviews and Filling out the questionnaire was carried out on the population of people who carry out activities that utilize irrigation canals in South Bolaang Mongondow Regency, totaling 35 (thirty five) respondents. An interview, which is often also called an oral questionnaire, is a dialogue conducted by an interviewer to obtain information from the interviewee. The results of the interview and filling in the questionnaire are then analyzed using the SWOT method.

Data Analysis To determine the characteristics of fish entrepreneurs and the profiles of farmers, qualitative descriptive analysis was used. The data is displayed in the form of tables or figures, including: age, length of education, business experience, number of family dependents, business scale, use of capital, and number of workers. Meanwhile, to formulate business development strategies, SWOT (Strength, Weaknesses, Opportunities, etc.) analysis is used. Threats which will make it easier to formulate various new strategies by grouping each problem into a table (Rangkuti, 2006).

The method used in this research is descriptive research, which aims to create objects systematically, factually and accurately regarding the facts and characteristics of a particular population or area (Singarimbun, 1987). Using descriptive analysis, namely the method used is descriptive through field survey in data collection. According to Sugiyono (2007), the descriptive method is a type of case study that has the advantage of being a study to support large studies in the future. From an educational perspective, case studies can be used as illustrative examples both in problem formulation and the use of statistics in analyzing ways of formulating generalizations and conclusions. Data collection was carried out using observation, interviews and literature study

methods.

RESULTS AND DISCUSSION

a. Identify Internal and External Factors

1. Identify internal factors

Table 1. Internal Factors

Internal Strategy Factors		Ratings	Weight	Score
No	Strength (S)			
1	Cultivation Land Potential	4.17	0.07	0.31
2	Tilapia Fish Commodity Easy to cultivate	5	0.09	0.44
3	Collaboration between cultivators and related agencies	4.57	0.08	0.37
4	There are empowerment programs from regional and village governments	4.86	0.09	0.42
5	Adequate water sources	4.51	0.08	0.36
6	Productive land	4.43	0.08	0.35
				2.24
Weakness (W)				
1	Low level of education	5	0.09	0.44
2	Limited seed availability	3.26	0.06	0.19
3	Disorganized administration	4.51	0.08	0.36
4	Lack of capital	3.71	0.07	0.24
5	Lack of extension workers	3.54	0.06	0.22
6	Dependence on commercial feed	5	0.09	0.44
7	Cultivation business as a side business	4.11	0.07	0.3
				2.19
TOTAL			1	0.05

Source: Processed data, 2023

Based on table 4.13 of the internal factor analysis matrix above, it is known that the total score of the strength variable strength factor (2.24) is greater than the weakness factor (2.19) so it can be said that the strategy to increase tilapia cultivation in South Bolaang Mongondow district is the strength variable more influential than the weakness variable.

Weakness factors with a rating of 5, namely low level of education (0.44), and dependence on commercial feed (0.44). This shows that the priority weakness is the weak level of education where most of the cultivators are junior high school (SMP) graduates and do not yet have a CBIB certificate because most have never taken technical guidance on how to cultivate fish properly.

Strength

The strength aspect consists of six internal strategic factors in the SWOT analysis of strategies for increasing tilapia cultivation in South Bolaang Mongondow Regency. The most prominent aspects that have the highest value from respondents are: the tilapia fish commodity which is easy to cultivate and the existence of empowerment programs from regional and village governments.

Tilapia fish is one of the freshwater aquaculture commodities that is very popular with the community. According to the cultivators, cultivating tilapia fish does not require special handling

like goldfish and catfish. This fish is popular among fish farmers because it has a high tolerance for poor water quality so can be maintained in various places with different methods. Tilapia is easy to cultivate in yard ponds, many people cultivate tilapia in their yards and it is hoped that people will be able to eat more fish. This is important to improve the nutritional quality of people's food, because fish is a source of high quality protein. It can be said that tilapia is a freshwater fish that is quite popular in various countries because it has thick and delicious meat like red snapper. Apart from that, this fish also has several advantages compared to other types of freshwater fish, such as being easy to breed, very resistant to environmental changes, resistant to disease attacks and is an omnivorous fish or eats everything.

The attention of the government, whether central, provincial, regional or village, is always there. This is proven by the assistance facilities received by the community. The Regional Government through the Maritime Affairs and Fisheries Service provides assistance in the form of tilapia seeds and feed. This type of assistance will be distributed to groups that meet the requirements to receive this assistance. It is hoped that this assistance will mobilize and motivate the community to carry out cultivation activities and will increase fish cultivation production. Likewise, the Village government through the Village Fund provides facilities in the form of water, fish and pond rehabilitation. **It is hoped that this assistance will mobilize and motivate the community to carry out cultivation activities and will increase fish cultivation production.**

Weakness

A very prominent weakness factor is the low level of education of tilapia fish farmers. Apart from the majority being junior high school graduates, the community also does not have a certificate for good fish farming methods and the lack of socialization activities about good fish farming and the lack of extension staff apparently makes Fish farmers are a little confused about facing problems or obstacles in cultivating tilapia

Dependence on commercial feed is one of the prominent factors because the high price of commercial feed with high quality also means that farmers have to incur large costs because if they use low quality fish feed, the development of tilapia fish will be slow so that the rearing period will be longer.

The availability of seeds has a low value because the farmers themselves have arranged the fish that will be sold and will be used as broodstock which will later be used as seeds.

2. Identify external factors

Table 2. External Factors

External Strategy Factors		Ratings	Weight	Score
No	Chance (O)			
1	Increased revenue	4.34	0.09	0.37
2	expansion of employment opportunities	4.51	0.09	0.4
3	Demand for fish on big days	5	0.1	0.49
4	Regional Regulations on Spatial Planning	3.4	0.07	0.23
5	Affordable fish prices	4.49	0.09	0.39
6	Competition in the cultivation business is still loose	4.2	0.08	0.35
				2.23
Threat (T)				

1	Change of land use	3.69	0.07	0.27
2	High feed prices	5	0.1	0.49
3	Natural disasters	4.29	0.08	0.36
4	There was a conflict between the cultivators and those cultivating the rice fields	3.6	0.07	0.25
5	Cultivation business is not a priority business	4.66	0.09	0.43
6	Fish theft	3.77	0.07	0.28
				2.08
TOTAL			1	0.15

Source: Processed data, 2023

External factors are very important to pay attention to because they relate to external conditions that usually benefit or threaten the fisheries cultivation business of South Bolaang Mongondow Regency. The opportunity factor that has the highest value is the demand/need for fish on big days (0.49).

The threat factors worth a rating of 5 are the high price of fish feed (0.49). Freshwater fish farmers admit that they are hampered by high feed costs. Good feed but expensive. It is true that there are feeds that are of lower quality, but they cannot be used as the main feed. Apart from limited capital, freshwater fish cultivation business actors in the region also have difficulty meeting the needs for business supporting facilities and infrastructure. **It is hoped that there will be guidance and capital assistance from the South Bolaang Mongondow Regency Government.**

Opportunity

The factor that stands out in terms of opportunities is that the demand for fish on big days is very high. This is one of the factors that makes farmers enthusiastic about cultivating fish.

The regional regulation factor regarding spatial planning has a low value because people generally cultivate fish only in their yards with an area of less than 1 Ha, so people do not understand the issue of regional regulations regarding spatial planning.

Threat

The most prominent factor is the high price of feed so that people often experience problems in fish cultivation. Most cultivators are aware of the use of alternative feed, but there are also some people who use low quality feed because they are unable to buy high quality feed.

The conflict factor between cultivators and rice field cultivators received a low value because only a small number of cultivators were still dependent on irrigation which was also the water source for rice field cultivators.

b. SWOT Matrix

After calculating the weights, scores, ratings and creating IFAS and EFAS tables for each factor, a SWOT Matrix strategy will be determined, which is as follows:

Table 3 Bolaang Mongondow Seltan

Internal	Strength (S)	Weakness (W)
	1. Cultivation Land Potential 2. Tilapia Fish Commodity is Easy to Cultivate 3. Collaboration between cultivators and related agencies 4. There is an empowerment program from the Regional and Village governments 5. Adequate water sources 6. Productive land	1. Low level of education 2. Limited availability of seeds 3. Disorganized administration 4. Lack of capital 5. Lack of extension workers 6. dependence on commercial feed 7. Cultivation business as a side business
External		
Chance (O)	Strategy (SO)	Strategy (WO)
1. Increased income 2. Expansion of employment opportunities 3. Demand for fish on big days 4. Regional Regulations on Spatial Planning 5. Affordable fish prices 6. Competition in the cultivation business is still	1. Utilize the potential of large pond areas and the large number of fish farmers by extensifying fisheries, namely increasing productivity and income from cultivation by expanding cultivation land to meet market needs. 2. Increasing cooperation in cultivation development 3. Increasing the institutional role of Cultivators government to optimize the performance of Pokdakan through training for optimization and increasing production.	1. Increasing human resources through coaching and training 2. Facilitate access to sources of capital 3. Provide assistance of regarding the roles and functions of the group 3. Provide assistance with business analysis calculations 4. Providing training related to the functions and duties of an organization to members of fish farming groups.

Threat (T)	Strategy (ST)	Strategy (WT)
loose 1. Change of land use 2. High feed prices 3. Natural Disasters 4. There is a conflict between the cultivator and the rice farmer 5. Cultivation business is not a priority business 6. Fish theft	1. Maintain potential fishing areas and prevent land conversion by educating on the benefits of cultivation activities 2. Use of technology and breakthroughs in making cheap protein feed	1. Increase stimulus assistance in the form of superior seeds and feed from regional, provincial and central governments 2. Using alternative feed

Source: Processed data, 2023

Based on the SWOT Matrix table 4.15, the alternative SO Strategy formulation that influences the increase in tilapia cultivation business in South Bolaang Mongondow Regency is a strategy that uses strength to take advantage of existing opportunities. The strategy that can be implemented is mUtilize the potential of large pond areas and the large number of fish farmers by extensifying fisheries, namely increasing productivity and income from cultivation by expanding cultivation land to meet market needs. This strategy is carried out to take advantage of existing opportunities, namely the demand for fish during religious holidays or there is a community celebration. In order to increase the quality and quantity of tilapia production, the strategy that can be implemented is the fish cultivator group (POKDAKAN) in collaboration with fisheries instructors in the use of technology with training to improve tilapia cultivation businesses by related agencies.

SWOT Analysis Diagram

After obtaining the results of each internal and external factor rating, to find out the strategy for increasing the tilapia cultivation business in South Bolaang Mongondow Regency by using a SWOT analysis diagram which can be determined by a combination of factors in the picture below:

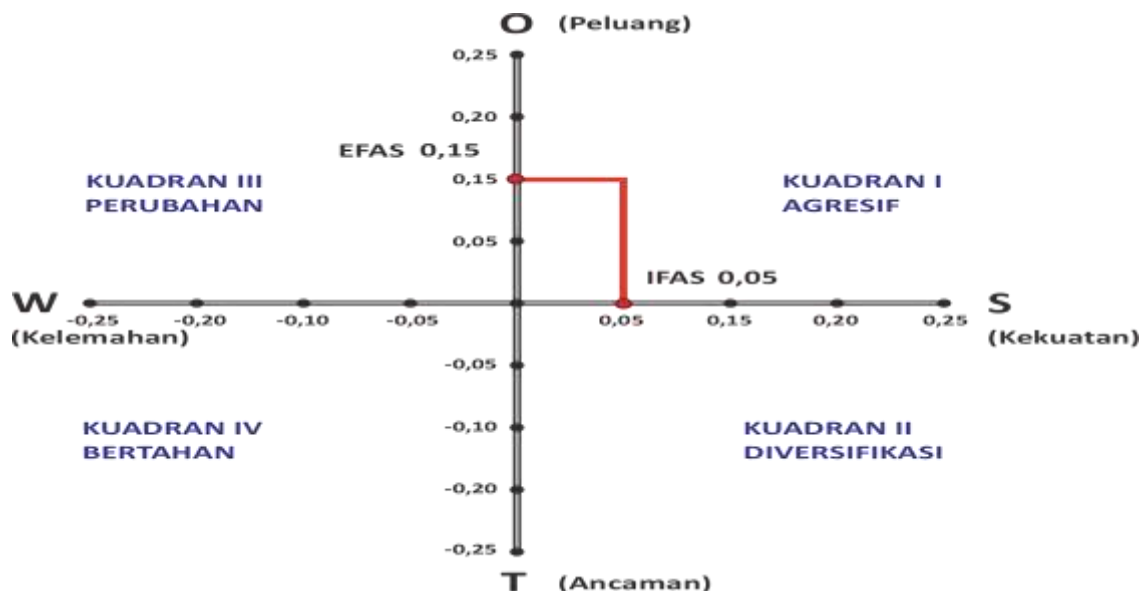


Figure 1 SWOT Analysis Diagram for Cultivation Business Improvement Strategy FishTilapia in South Bolaang Mongondow Regency.

Based on the picture above, it can be seen that the strengths are greater than the weaknesses, resulting in the X axis in the SWOT diagram with a value showing that the difference between strengths and weaknesses shows the number 0.05. Thus, if the opportunities faced are greater than the threats resulting in a Y axis with a value showing that the difference between opportunities and threats shows the number 0.15, then the strategy for increasing tilapia cultivation businesses in South Bolaang Mongondow Regency is in quadrant 1 where it is recommended to carry out progressive strategies by utilizing the internal strengths of the tilapia cultivation business to gain profits from external opportunities to achieve increased growth in the tilapia cultivation business.

The fisheries position of South Bolaang Mongondow Regency which is in quadrant I with various opportunities and internal strengths must be faced with certain alternative strategies. The combination of these values when viewed in the SWOT matrix is the SO (Strength - Opportunities) strategy as the main strategy, namely Quadrant I position is very profitable because it has strengths that can take advantage of opportunities. The strategy that must be implemented is to support aggressive growth policies. The results of the South Bolaang Mongondow Regency fisheries SWOT matrix are as shown in Table 4.15. The main strategic alternatives (Strength-Opportunities) formulated for the development of South Bolaang Mongondow Regency fisheries are based on the SWOT matrix, namely: **exploiting the potential of large pond areas and the large number of fish farmers by extensifying fisheries, namely increasing productivity and income from cultivation by expanding cultivation land to meet market needs, mincreasing cooperation in cultivation development, increasing the institutional role of cultivatorsgovernment to optimize the performance of pokdakan through training to optimize and increase production.**

Internal and External Aspects

Economic Aspects

In the economic dimension, market accessibility is the aspect with the highest sensitivity, this is in accordance with field conditions where marketing is limited to local residents or some already sell to local collectors. Therefore, market accessibility is an aspect that needs to be considered. Another aspect related to product marketing is that most Pokdakan members have not been able to reach a wider market share, their consumers are still limited to local communities. Therefore, product

marketing is one aspect that needs to be paid attention to. This is also in line with the opinion of Royensyah (2013) which states that marketing is an important activity in running a business because it is closely related to the rise and fall of income received by business actors. In this economic aspect, the most important aspects of fisheries business are the segmentation of cultivation businesses, marketing access, marketing chain efficiency, price fluctuations, and the level of subsidies for cultivation businesses.

Economic conditions have a significant influence on the operation of the tilapia fish business, especially on the income that will be obtained. As price increases affect the prices of feed, medicines, seeds and other production facilities.

Factor The next influence is the availability of marketing institutions

and capital providers. Based on data in the field, both institutions are not yet available in South Bolaang Mongondow Regency. In this way, both aspects need to be paid attention to in order to achieve sustainability in the tilapia fisheries business. According to Yulisti & Triyanti (2012), capital providing institutions are not only banks, but institutions formed from non-governmental organizations to manage grant/revolving finance can also be called capital providing institutions. Meanwhile, marketing institutions also have a very important function in determining the sustainability of fisheries businesses because they are related to the stability of prices set in the relevant area. Where prices determine income for business actors.

The income of cultivators in southern Bolaang Mongondow Regency is still on a small scale, namely only being able to pay for daily living without paying for education costs, etc., this is because most of the cultivation business is still a side business and not the main activity of fish cultivators. However, there are a small number of those whose main job is cultivators, their income can finance their children's education, and they can manage the finances of fish farming. The consumption-sized tilapia is then marketed both to consumers in South Bolaang Mongondow Regency and consumers outside South Bolaang Mongondow Regency. The consumers in question are restaurants and households. The price of fish at the consumer level is around IDR 35,000. Consumable tilapia is not only sold as food to fulfill protein requirements, but is also used as new broodstock in the hatchery segment.

Problems related to business aspects, high feed prices are still a classic problem for which the solution has not yet been resolved. In fact, feed is the biggest component in cultivation, especially enlargement cultivation. Even though profits have been achieved, to produce greater production, cultivators do not have sufficient capital to buy feed. Currently, groups have initiated the production of feed made from local raw materials, but the ability to produce local feed is only limited to the needs of the group and cannot meet the needs of cultivators in South Bolaang Mongondow Regency.

Capital is often used as another obstacle that prevents cultivators from progressing further in carrying out their various activities. Getting the right business capital is not easy, apart from the fact that they are working individually, the cultivators do not have a joint business platform, so it is difficult for them to give confidence to the bank in their efforts to obtain business capital loans. However, the actual capital problem, as has been stated, does not lie in the nominal amount of capital obtained but lies in the management of the business capital that is owned. With good management, of course you will be able to produce more productive business capital. Tilapia cultivators get their capital from their own capital, they experience difficulties in obtaining business capital, another thing that is also a weakness of the cultivating community is creativity in managing fresh fish products. From the research results it was found that mThe capital owned by fish farmers is very limited due to the weak economic situation so generally they do not dare to take loans from banks. Entrepreneurs also consider that the tilapia fish business is a side business because their main job is farming.

Social Aspects

The influence of conflict is the most sensitive aspect in the social dimension. Based on facts on the ground, conflict incidents are very rare in South Bolaang Mongondow Regency. It could be said that there has never been a conflict related to the operation of the fisheries business. According to Grima and Berkes (1989) in Kurniasari et al., (2012) conflict can occur when boundaries for access or rights in the use of resources are not defined, but on the other hand there are demands to maintain the sustainability of the ecosystem or with other uses that leading to conflict and environmental degradation. Therefore, it is necessary to formulate written regulations regarding the limitations in cultivating tilapia in South Bolaang Mongondow Regency in order to avoid potential conflicts in the future.

The next aspect that influences sustainability status in the social dimension is the motivation to carry out cultivation efforts. The high motivation shown by tilapia farmers is one of the important things to maintain the continuity of tilapia production. This is also confirmed by research conducted by Markisman et al., (2016) that social factors related to motivation in pursuing business are encouragement from within the cultivator in running his business. Motivation is something that really supports efforts to develop fish cultivation as a main or additional source of livelihood.

Human Resources

Problems related to human resources, more specifically the knowledge of cultivators about hatching and rearing techniques for tilapia fish, come from parents from generation to generation and from fellow members of the cultivator group. They carry out cultivation efforts using traditional methods based on the habits carried out by their parents before, for example for hatchery they only use parents from several generations without paying attention to the strain, have not paid attention to good fish cultivation methods and have not Pay attention to quality seeds and parents. The cultivators, both hatching and rearing tilapia, are satisfied with the results obtained from the current tilapia hatchery and rearing business. According to Yuliana & Tasir (2016), problems often faced by cultivators include the level of knowledge about cultivation techniques and management.

Strategy for Increasing Tilapia Fish Cultivation Business in South Bolaang Mongondow Regency

Strategy is a flow of decisions and actions that leads to the development of an effective strategy to help achieve company targets. Strategy is a unified plan, strategy ties all parts of the company together. Strategy is comprehensive, strategy covers all important aspects of the company. The strategy is integrated, all parts of the plan are in harmony with each other and are compatible. (Suandy, 2008: 2)

Based on the potential and existing problems, a SWOT analysis was carried out to identify internal and external factors (IFAS and EFAS) consisting of strengths, weaknesses, opportunities and threats. After determining the factors that have been grouped into strengths, weaknesses, opportunities and threats, the internal and external factors are weighted, rated and scored (Tables 4.13 and 4.14). Weighting is carried out on internal factors and external factors based on the level of importance to determine the best policy. The weighting method uses the criteria weighting method (Utsalina & Primandari, 2020). Next, a ranking is carried out with a range between 1-5. The elements of strength and opportunity are ranked 1 meaning not influential, 2 meaning less influential, 3 meaning influential, 4 meaning quite influential and 5 meaning very influential. Meanwhile, the elements of weakness and threat are given the opposite value. After each factor (internal and external) is related to obtain several development strategies (SO, ST, WO and WT). The weight value multiplied by the ranking value of each strategy produces a score value (Sarmin, et al., 2021; Arsanti et al., 2020; Purnomo et al., 2017).

The strategy that can be applied to increase the tilapia cultivation business in South Bolaang Mongondow Regency is to utilize the potential of large pond areas and the large number of fish farmers by means of fisheries extensification, namely increasing productivity and income from cultivation by expanding cultivation land to meet market needs, increasing cooperation in cultivation development, increasing the institutional role of cultivators and government to optimize the performance of the pokdakan through training for optimization and increasing production. (Table 4.12). This is in line with the results of the study by Saad et al. (2020), in determining an effective strategy for business development, you must further improve product quality, increase wider marketing reach, and recruit experts.

CONCLUSION

Based on the results of research on strategies for increasing tilapia cultivation businesses in South Bolaang Mongondow Regency, several things can be concluded as follows:

1. The condition of tilapia farmers in South Bolaang Mongondow Regency is in quadrant I with coordinates (0.05:0.15), indicating that this cultivation business has great opportunities and strengths. The right alternative strategy to apply in business development is to use strategy *SO*. After combining strength with opportunity and strategy *SO* (*Strength - Opportunity*), then the factors that must be maintained to be able to take advantage of existing opportunities are obtained, namely: (1) Utilizing the potential of a fairly large pond area and the large number of fish farmers by means of fisheries extensification, namely increase productivity and income from cultivation by expanding cultivation land to meet market needs, (2) Increasing cooperation in cultivation development, (3) Increasing the role of cultivator institutions and the government to optimize the performance of pokdakan through training to optimize and increase production.
2. Internal and external factors that are very prominent in the tilapia cultivation business strategy in South Bolaang Mongondow Regency are: tilapia fish commodities that are easy to cultivate, the existence of empowerment programs from regional and village governments, low levels of education, dependence on commercial feed, demand for fish in these days are great, cultivation is not a priority business and feed prices are high
3. There are obstacles in the strategy for developing freshwater fish cultivation in South Bolaang Mongondow Regency from various sectors. These include natural factors, business capital, marketing strategies, and skills in developing a freshwater fish cultivation business. This means that the obstacles experienced by freshwater fish cultivators in the fish cultivator group are internal and external.