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# DEVOLEPMENT STRATEGY ANALYSIS OF LEADING BUSINESS FOR FISHERIES SECTOR IN SITUBONDO REGENCY

# ANALISIS STRATEGI PENGEMBANGAN USAHA UNGGULAN SEKTOR PERIKANAN DI KABUPATEN SITUBONDO

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## ABSTRACT

The leading business of fisheries sector in the Situbondo District is faced with problems even though it also benefits from government support. Based on these problems and advantages, this research aims to develop leading businesses of fisheries sector in the Situbondo District through the formulation of appropriate business development strategies. The analysis method used to formulate this strategy is SWOT and QSPM analysis. The results of the SWOT analysis recommend that leading businesses of fisheries sector implement survival strategies. The priority strategies based on the QSPM matrix are 1) developing the capacity of fisheries business actors, 2) increasing supply chain performance to increase the competitiveness of fisheries businesses, 3) supporting Government policies in creating a fair fisheries business climate, 4) making production plans based on demand/market, 5) optimizing upstream production activities (catching and cultivation) through environmentally friendly production control and adequate infrastructure support, 6) controlling the quality of fish catches through providing supporting facilities and infrastructure, and 7) increasing production results by optimizing assistance provided by the Government.

Keywords: fisheries business, development, SWOT, QSPM.

## ABSTRAK

Usaha unggulan sektor perikanan di Kabupaten Situbondo dihadapkan pada permasalahan-permasalahan walaupun juga diuntungkan dengan dukungan pemerintah. Berdasarkan permasalahan dan keuntungan tersebut, penelitian ini bertujuan untuk mengembangkan usaha unggulan sektor perikanan di Kabupaten Situbondo melalui perumusan strategi pengembangan usaha yang tepat. Metode analisis yang digunakan untuk merumuskan strategi tersebut adalah analisis SWOT dan QSPM. Hasil analisis SWOT merekomendasikan agar usaha unggulan sektor perikanan melakukan strategi bertahan. Adapun strategi prioritas berdasarkan matriks QSPM adalah 1) pengembangan kapasitas pelaku usaha perikanan, 2) peningkatan kinerja rantai pasok untuk meingkatkan daya saing usaha perikanan, 3) dukungan kebijakan pemerintah dalam menciptakan iklim usaha perikanan yang berkeadilan, 4) membuat perencanaan produksi berdasarkan permintaan/pasar, 5) optimalisasi kegiatan produksi hulu (penangkapan dan budidaya) melalui pengendalian produksi yang ramah lingkungan dan dukungan infrastruktur yang memadai, 6) pengendalian mutu hasil tangkapan ikan melalui penyediaan sarana dan prasarana pendukung, dan 7) peningkatan hasil produksi dengan mengoptimalkan bantuan yang diberikan Pemerintah.

Kata kunci: usaha perikanan, pengembangan, SWOT, QSPM.

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## INTRODUCTION

Situbondo District is one of the regions in East Java Province which has marine and fisheries potential. Situbondo District is located on the north coast of East Java Province. Situbondo District has a sea area of 1,142.4 km2. Geographically, the fisheries potential in Situbondo District are concentrated in coastal areas with sea fishing, pond aquaculture, freshwater aquaculture, seawater aquaculture, hatcheries and processing businesses (BPS, 2023). In order to optimally utilize the fisheries potential in Situbondo District which is linked to the welfare of business actors in the fisheries sector, a blue economy program or industrialization of fisheries businesses from upstream to downstream is needed which can guarantee that fisheries businesses are based on the welfare of fisheries business actors (Wibowo et al., 2021; Nainggolan et al., 2019).

Different types of fisheries businesses in Situbondo District include fishing, aquaculture and processing. Each of these fisheries businesses has a leading business commodity/product based on leading fish commodities in the fishing business which includes tuna, gliding, kurisi and anchovies. Leading businesses in the field of aquaculture include pond aquaculture with vannamie shrimps as a commodity, pond aquaculture with catfish as a commodity and Floating Net Cage aquaculture with grouper fish as a commodity. Leading businesses in the processing sector include pindang fish, dried/salted fish, fish crackers and fish rengginang. Production volumes in the leading businesses in the fisheries sector are currently experiencing fluctuations, however it tends to decline. These fluctuations and declines are caused by multiple factors. Fishing businesses are faced with the problem of declining fish stocks caused by overfishing and the decline of marine ecosystems. Aquaculture businesses are faced with problems with fish/shrimp diseases and decreasing carrying capacity of the aquaculture environment. Processing businesses are faced with problems relating to the availability of raw materials and markets (Disnakkan, 2022).

The problems faced by leading businesses in the fisheries sector in Situbondo District are not only production problems but also other problems such as 1) declining supply chain performance, 2) weak institutional functions, such as financial institutions, marketing institutions and extension institutions, 3) the current quality and quantity of business actors involved in various fisheries business sectors is relatively low compared to the potential of existing fisheries businesses, 4) the use and application of technology in the production and marketing sectors still relies on dated tools, 5) access to capital in financial institutions is still low due to high business risks in the fishery sector, 6) and the lack of supporting infrastructure and functional existing infrastructure. Apart from being faced with these problems, leading businesses in the fisheries sector also benefit from supporting the Regional Government and the Central Government by providing people's business credit programs for fisheries business actors, revitalizing ponds, improving marine ecosystems and other Government policies. Some supporting infrastructure has also been built, such as a fish port, shrimp/fish seed center, ice factory, fuel filling station for fishermen and other supporting infrastructure for fishing businesses (Disnakkan, 2023).

Based on the problems and advantages faced by leading businesses in the fisheries sector in Sitibondo District as described above, this research aims to develop leading businesses in the fisheries sector in Situbondo District through the formulation of appropriate business development strategies. Business development strategies are formulated using SWOT analysis and the QSPM method. SWOT analysis is used to maintain the strengths of existing opportunities, mitigate weaknesses, and avoiding potential threats, while QSPM is used to reveal strategic alternatives that may be appropriate or best for the state of leading business in the fisheries sector in Situbondo District.

## RESEARCH METHODS

This research was carried out in November-December 2023 with the research location in Situbondo District. The data collected in this research consists of primary data and secondary data. Primary data is data directly obtained by researchers from research objects in the field (Arikunto, 2017). Secondary data is data collected by researchers indirectly from the research object but through research on documents related to the research object (Ansori, 2020). Primary data sources were obtained in 2 ways, namely observation and interviews. The characteristics of the respondents involved in the interviews consisted of several experts who had extensive knowledge, understanding and insight regarding the research object. The number of experts involved in this research consisted of 15 experts, which includes 5 academic experts, 5 experts practitioners, and 5 experts from the government. Respondents (Experts) were chosen to answer the objectives of this research. The sampling technique used to determine the number of respondents (experts) was a purposive sampling. Purposive sampling is a sampling technique based on certain considerations. Many researchers choose this sampling technique because of its time and cost efficient characteristics, especially for quantitative research (Sugiyono, 2019). Secondary data sources are obtained through the results of research or studies by other parties, such as the results of studies by government and private agencies and other related agencies.

### Data Analysis Technique

### SWOT Analysis

The formulation of a leading business development strategy for the fisheries sector is carried out using SWOT analysis. The stages of SWOT analysis (Rangkuti, 2014) are as follows:

a. Identifying internal (strengths and weaknesses) and external factors (opportunities and threats) faced by businesses as a basis for formulating leading business development strategies in the fisheries sector.
b. Evaluation of Internal Factors and Evaluation of External Factors (IF-EF) by calculating the score (a) and weight (b) of factor points as well as the total number of multiplications of scores and weights (c = a x b) for each S-W-O-T factors. The range of scores used is from 0 to 1, with the assumption that 0 means the lowest score and 1 means the highest score. The range of weights used is from 1 to 4, with the assumption that a value of 1 is the weakest weight, a value of 2

means a weak weight, a value of 3 means a strong weight, and a value of 4 as the strongest weight.

c. Create a SWOT Quadrant Matrix that is used to determine the position of leading businesses in the fisheries sector. This position is determined through the tangent point (x, y) obtained from the Internal Factor Evaluation and External Factor Evaluation Matrix (IF-EF). The (x) axis is obtained by subtracting the total number of factors S (strengths) and W (weaknesses). The (y) axis is obtained by subtracting the total number of factors O (opportunities) and T (threats).
d. Create a SWOT Matrix to formulate a leading business development strategy for the fisheries sector. The strategy formulation is based on the results of internal identification (strengths (S) and weaknesses (W)) and external factors (opportunities (O) and threats (T)) which consist of 4 strategy formulations, namely strategy 1 is the S-O strategy, strategy 2 is the S-T strategy , Strategy 3 is the W-O strategy and strategy 4 is the W-T strategy.

**QSPM Analysis**

Rismah et al., (2019) explained that QSPM (Quantitative Strategic Planning Matrix) is designed to determine the relative attractiveness and evaluate alternative strategy options that can be implemented objectively, based on the results of Internal Factor Evaluation and External Factor Evaluation Matrix (IF-EF). QSPM is the final stage matrix in the strategy formulation analysis framework. QSPM clearly shows the best alternative strategy to choose. Following are the steps in creating a QSPM:

a. Create a list of strengths and weaknesses (internal factors) and threats and opportunities (external factors) taken directly from the internal factor evaluation and external factor evaluation matrix (IF-EF).
b. Give weight to each internal factor and external factor. These weights must be identical to the weights given in the Internal Factor Evaluation and External Factor Evaluation Matrix (IF-EF).
c. Write down the resulting strategy alternatives in the SWOT matrix.
d. Give an assessment of the AS (Attractiveness Score), if the factor in question has an influence on the alternative strategy being considered, give an AS (Attractiveness Score) value ranging from 1 to 4, value 1 = not attractive, value 2 = somewhat attractive, value 3 = interesting and a score of 4 = very interesting.
e. Calculate the Total Attractiveness Score (TAS) by multiplying the weight by the Attractiveness Score (AS). The total Attractiveness Score (AS) shows the relative attractiveness of each alternative strategy.
f. Calculate the total TAS value in each QSPM column. The largest value indicates that the alternative strategy is the main choice and the smallest TAS value indicates that the alternative strategy is chosen last.

## RESULTS AND DISCUSSION

### Identification Internal and External Factors

Based on research which was done using field identification, internal and external factors were obtained as a basis to formulate a strategy for developing leading businesses in the fisheries sector in Situbondo District. Internal factors consist of strength and weakness factors which can be seen in Table 1.

**Table 1. Internal Factor Identification Results**

| Strengths (S) | Weaknesses (W) |
|---|---|
| 1. The pond area is 1,264.66 Ha with an average production volume of 10,210.57 tons/year (S1) | 1. The quality of fisheries business actors is not evenly distributed (W1 |
| 2. The pool area is 1,380 $m^2$ with an average production volume of 271.04 tons/year (S2) | 2. Weak implementation of regulations related to fishing (W2) |
| 3. Floating net cage area 5,562.50 $m^2$ with an average production volume of 106.45 tons/year (S3) | 3. Boats/vessels operating in traditional fishing operations (W3) |
| 4. There are 34 Community Hatchery Units with an average production volume of 11,327,000 fish seeds / year (S4) | 4. The number of large vessels is still low and fishing vessel engines need to be rejuvenated (W4) |
| 5. There are 118 Household Scale Hatchery units with an average production volume of 250,200,000 shrimp seeds/year (S5) | 5. Fishermen often have difficulty getting capital for fishing (W5) |
| 6. There are 43 company scale hatchery units with an average production volume of 10,419,282,000 shrimp seeds /year (S6) | 6. The quality and competitiveness of fishery products is still not optimal (W6) |
| 7. Average catch production is 15,452.95 tons/year (S7) | 7. Unavailability of packaging houses and markets for hygine fishery products (W7) |
| 8. Processed fisheries production averages 9,601,292 tons/year (S8) | 8. Lack of experts in processing diversification (W8) |
| | 9. Insufficient technology for processing fishery products (W9) |
| | 10. The machines and technology used in the production process are still traditional (W10) |
| | 11. The marketing reach of processed products is still limited (W11) |
| | 12. There is no cold storage/cool room available in the fish harbor area (W12) |
| | 13. Lack of cooperation with financial institutions (W13) |

Source: Primary Data Processed (2023)

Based on the results of identifying internal factors in Table 1, it shows that there are 8 items that are considered as strengths and 13 items that are considered as weaknesses of the leading fisheries sector businesses in Situbondo District. This explains that the strengths possessed by leading businesses in the fisheries sector are fewer than their weaknesses. Furthermore, external factors have also been identified in leading fisheries sector businesses which include opportunities and threats. The results of identifying external factors can be seen in Table 2.

**Table 2. External Factor Identification Results**

| Opportunities (O) | Threats (T) |
|---|---|
| 1. Regional Government policy that states the Minapolitan area as an area that focuses on developing leading businesses in the fisheries sector (O1) | 1. Decreasing fish resource stocks due to over fishing (T1) |
| 2. Availability of Shrimp/Fish Seed Centers (O2) | 2. Coral bleaching which causes damage to the coral reef ecosystem (T2) |
| 3. Availability of a typical regional souvenir center (O3) | 3. Competition between processors both in obtaining raw materials and reaching markets/consumers (T3) |

| Opportunities (O) | Threats (T) |
|---|---|
| 4. Poverty Solution Program (PSP) assistance pond revitalization activities (O4) | 4. Availability of fishery production results is unstable (T4) |
| 5. Assistance for the Development of Aquaculture Cage Villages (O5) | 5. Market conditions tend to fluctuate (T5) |
| 6. Grants for fisheries business infrastructure procurement activities (O6) | 6. There is no marketing center for fishery products (T6) |
| 7. Support from the Ministry of Maritime Affairs and Fisheries (O7) | 7. Fishing port management is not yet optimal (T7) |
| 8. Artificial coral reef planting program (O8) | 8. The marketing chain is not in favor of fishermen (T8) |
| 9. Online and offline markets, both local and export, are increasingly open (O9) | 9. The existing dock is not ideal for fisheries loading and unloading activities (T9) |
| | 10. Decreased environmental carrying capacity on pond business productivity (T10) |

Source: Primary Data Processed (2023)

Based on the results of identifying external factors in Table 2, it shows that there are 9 items that are opportunities and 10 items that are threats to the leading businesses in the fisheries sector in Situbondo District. This explains that the opportunities possessed by leading businesses in the fisheries sector are fewer than the threats.

**Evaluation of Internal Factors and Evaluation of External Factors**

After identifying internal factors and external factors, evaluating the internal factors and external factors is carried out. This evaluation is a quantitative approach which is an approach by calculating weights and scores on internal factor and external factor criteria. Calculation of scores (a) and weights (b) of factor points as well as the total number of multiplications of scores and weights (c = a x b) for each S-W-O-T factor. The range of scores used is from 0 to 1, with the assumption that 0 means the lowest score and 1 means the highest score. The range of weights used is from 1 to 4, with the assumption that a value of 1 means the weakest weight, a value of 2 means a weak weight, a value of 3 means a strong weight, and a value of 4 means the strongest weight. Evaluation of internal factors can be seen in Table 3.

**Table 3. Internal Factor Evaluation Matrix**

| Internal Factor | Average | | Total (c) |
|---|---|---|---|
| | Weight (a) | Score (b) | |
| **Strengths (S)** | | | |
| 1. The pond area is 1,264.66 Ha with an average production volume of 10,210.57 tons/year (S1) | 0.087 | 3.6 | 0.3132 |
| 2. The pool area is 1,380 $m^2$ with an average production volume of 271.04 tons/year (S2) | 0.068 | 3.2 | 0.2176 |
| 3. Floating net cage area 5,562.50 $m^2$ with an average production volume of 106.45 tons/year (S3) | 0.047 | 2.8 | 0.1316 |
| 4. There are 34 Community Hatchery Units with an average production volume of 11,327,000 fish seeds / year (S4) | 0.057 | 3.0 | 0,1710 |
| 5. There are 118 Household Scale Hatchery units with an average production volume of 250,200,000 shrimp seeds/year (S5) | 0.064 | 3.0 | 0.1920 |
| 6. There are 43 company scale hatchery units with an average production volume of 10,419,282,000 shrimp seeds /year (S6) | 0.073 | 3.3 | 0.2409 |
| 7. Average catch production is 15,452.95 tons/year (S7) | 0.085 | 3.8 | 0.3230 |
| 8. Processed fisheries production averages 9,601,292 tons/year (S8) | 0.088 | 3.8 | 0.3344 |
| **Total Strengths (TS)** | | | **1.9237** |

| Internal Factor | Average | | Total (c) |
|---|---|---|---|
| | Weight (a) | Score (b) | |
| **Weaknesses (W)** | | | |
| 1. The quality of fisheries business actors is not evenly distributed (W1 | 0.094 | 4.0 | 0.3760 |
| 2. Weak implementation of regulations related to fishing (W2) | | | |
| 3. Boats/vessels operating in traditional fishing operations (W3) | 0.057 | 3.0 | 0.1710 |
| 4. The number of large vessels is still low and fishing vessel engines need to be rejuvenated (W4) | 0.082 | 3.7 | 0.3034 |
| | 0.080 | 3.4 | 0.2720 |
| 5. Fishermen often have difficulty getting capital for fishing (W5) | | | |
| 6. The quality and competitiveness of fishery products is still not optimal (W6) | 0.087 | 3.9 | 0.3393 |
| | 0.092 | 3.7 | 0.3404 |
| 7. Unavailability of packaging houses and markets for hygine fishery products (W7) | 0.070 | 3.0 | 0.2100 |
| 8. Lack of experts in processing diversification (W8) | | | |
| 9. Insufficient technology for processing fishery products (W9) | 0.073 | 3.0 | 0.2190 |
| 10. The machines and technology used in the production process are still traditional (W10) | 0.082 | 3.5 | 0.2870 |
| | 0.076 | 3.5 | 0.2660 |
| 11. The marketing reach of processed products is still limited (W11) | | | |
| 12. There is no cold storage/cool room available in the fish harbor area (W12) | 0.088 | 3.9 | 0.3432 |
| 13. Lack of cooperation with financial institutions (W13) | 0.062 | 3.0 | 0.1860 |
| **Total Weaknesses (TW)** | 0.080 | 3.3 | 0.2640 |
| **TS-TW=X** | | | **3.5773** |
| | | | **-1.6536** |

Source: Primary Data Processed (2023)

Based on Table 3, Strengths have a total value of 1.9237 and weaknesses have a total value of 3.5773 and the difference between strengths and weaknesses is -1.6536, it can be concluded that the leading businesses in the fisheries sector in Situbondo District is on the negative X axis, this implies that there are a greater number of weaknesses shown when compared to the strengths. After carrying out an internal evaluation, an evaluation of external factors is then carried out. In evaluating external factors, weights and scores are also calculated. Calculation of scores (a) and weights (b) of factor points as well as the total number of multiplications of scores and weights (c = a x b) for each S-W-O-T factor. The range of scores used is from 0 to 1, with the assumption that 0 means the lowest score and 1 means the highest score. The range of weights used is from 1 to 4, with the assumption that a value of 1 means the weakest weight, a value of 2 means a weak weight, a value of 3 means a strong weight, and a value of 4 means the strongest weight. Evaluation of external factors can be seen in Table 4.

Based on Table 4, opportunities have a total value of 2.6671 and threats have a total value of 2.0271 and the difference between opportunities and threats is 0.6400, which can be concluded that the leading businesses in the fisheries sector in Situbondo District is on the positive Y axis, which implies that the identified opportunities are greater compared to the threats.

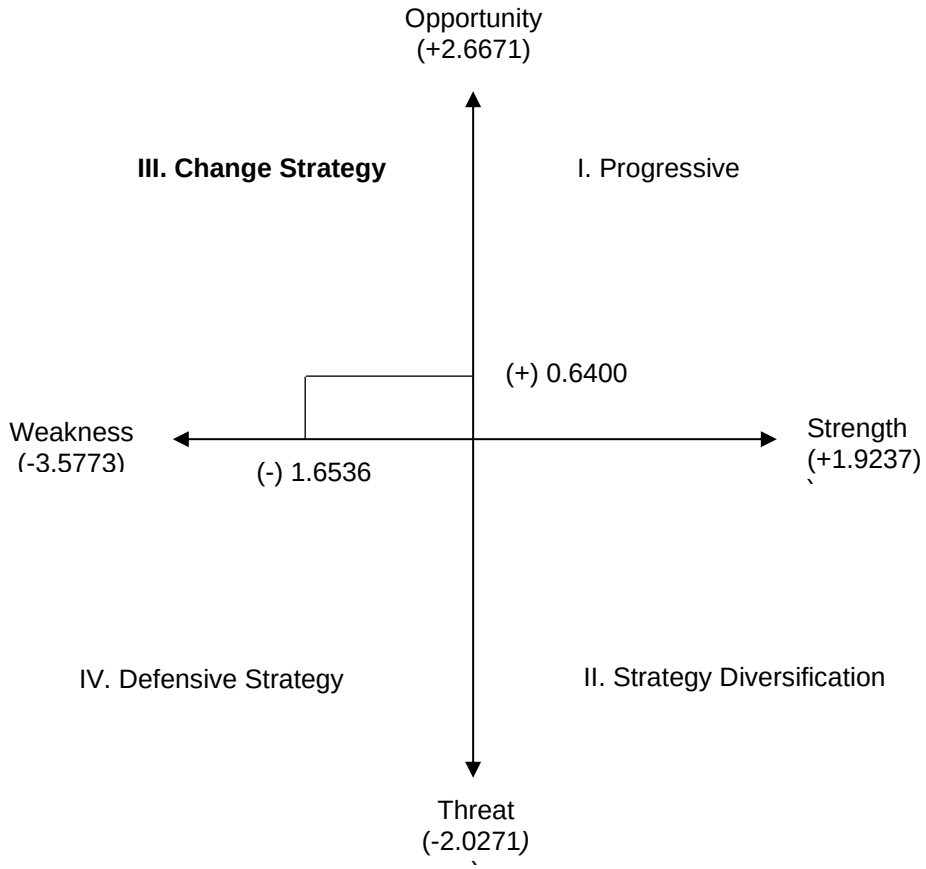
**Table 4. External Factor Evaluation Matrix**

| Factor External | Average | | Total (c) |
|---|---|---|---|
| | Weight (a) | Score (b) | |
| **Opportunities (O)** | | | |
| 1. Regional Government policy that states the Minapolitan area as an area that focuses on developing leading businesses in the fisheries sector (O1) | 0.089 | 3.9 | 0.3471 |
| 2. Availability of Shrimp/Fish Seed Centers (O2) | 0.078 | 3.3 | 0.2574 |
| 3. Availability of a typical regional souvenir center (O3) | 0.084 | 3.4 | 0.2856 |
| 4. Poverty Solution Program (PSP) assistance pond revitalization activities (O4) | 0.084 | 3.4 | 0.2856 |
| 5. Assistance for the Development of Aquaculture Cage Villages (O5) | 0.074 | 3.1 | 0.2294 |
| 6. Grants for fisheries business infrastructure procurement activities (O6) | 0.083 | 3.3 | 0.2739 |
| 7. Support from the Ministry of Maritime Affairs and Fisheries (O7) | | | |
| 8. Artificial coral reef planting program (O8) | 0.085 | 3.7 | 0.3145 |
| 9. Online and offline markets, both local and export, are increasingly open (O9) | 0.090 | 3.6 | 0.3240 |
| | 0.092 | 3.8 | 0.3496 |
| **Total Opportunities (TO)** | | | **2.6671** |
| **Threats (T)** | | | |
| 1. overfishing (T1) | 0.084 | 3.0 | 0.2520 |
| 2. Coral bleaching which causes damage to the coral reef ecosystem (T2) | 0.077 | 2.3 | 0.1771 |
| 3. Competition between processors both in obtaining raw materials and reaching markets/consumers (T3) | 0.075 | 3.1 | 0.2325 |
| 4. Availability of fishery production results is unstable (T4) | 0.080 | 3.2 | 0.2560 |
| 5. Market conditions tend to fluctuate (T5) | 0.072 | 3.0 | 0.2160 |
| 6. There is no marketing center for fishery products (T6) | 0.069 | 2.5 | 0.1725 |
| 7. Fishing port management is not yet optimal (T7) | 0.063 | 2.0 | 0.1260 |
| 8. The marketing chain is not in favor of fishermen (T8) | 0.079 | 3.0 | 0.2370 |
| 9. The existing dock is not ideal for fisheries loading and unloading activities (T9) | 0.062 | 2.0 | 0.1240 |
| 10. Decreased environmental carrying capacity on pond business productivity (T10) | 0.078 | 3.0 | 0.2340 |
| **Total Threats (TT)** | | | **2.0271** |
| **TO-TT=Y** | | | **0.6400** |

Source: Primary Data Processed (2023)

## SWOT Quadrant Matrix

The SWOT Quadrant Matrix is used to determine the position of leading businesses in the fisheries sector in Situbondo District. From Table 3, the X axis value is negative (-1.6536), which means the strength score is below the weakness score. From Table 4, the Y axis value is positive (0.6400), which means the opportunity score is above the threat score. The X-axis and Y-axis values are outlined in the SWOT quadrant matrix to see the position of leading businesses in the fisheries sector. The SWOT Quadrant Matrix is presented in Figure 1 below:




Source: Primary Data Processed (2023)

**Figure 1. SWOT Quadrant Matrix**

Based on Figure 1, the position of the leading businesses in the fisheries sector in Situbondo District is located in quadrant III, this indicates that the leading businesses in the fisheries sector currently display significant weakness, however it does possess substantial opportunities. The recommended strategy given is to make a change in strategy, meaning that the condition of leading businesses in the fisheries sector is to make strategic changes to their businesses, since the previous strategy was deemed unable to capture existing opportunities and unable to improve the performance of leading businesses in the fisheries sector in Situbondo District.

**SWOT Matrix**

The tool used to map and formulate strategic policies is the SWOT matrix. the SWOT Matrix facility is used to map out and formulate strategies in a way that maximizes strengths and opportunities while also minimizes weaknesses and threats. From the SWOT matrix, 4 strategies will be produced, namely 1) SO strategy, 2) WO strategy, 3) ST strategy and 4) WT strategy. The SWOT matrix that has been prepared can be seen in Table 5.

**Table 5. SWOT Matrix**

| Internal Factor (IF) / External Factor (EF) | Strengths (S)<br>S1, S2, S3, S4, S5, S6, S7, S8 | Weaknesses (W)<br>W1, W2, W3, W4, W5, W6, W7, W8, W9, W10, W11, W12, W13 |
|---|---|---|
| Opportunities (O)<br>O1, O2, O3, O4, O5, O6, O7, O8, O9 | (S-O) Strategy<br>1. Increase production results by optimizing assistance provided by the government (S1,S2,S3,S4,S5,S6 S7,S8,O1,O2,O3,O4,O5,O6,O7, O8, O9) | (W-O) Strategy<br>1. Supporting Government policies in creating a fair fisheries business climate (W1,W2,W3,W4,W5,W6,W7,W8, W9,W10,W11,W12,W13,O1,O2, O3,O4,O5,O6,O7)<br>2. Improving supply chain performance to increase the competitiveness of fisheries businesses (W1,W2,W3,W4,W5,W6,W7,W8, W9,W10,W11,W12,W13,O1,O2, O3,O4,O5,O6,O7, O9) |
| Threats (T)<br>T1, T2, T3, T4, T5, T6, T7, T8, T9, T10 | (S-T) Strategy<br>1. Make production planning based on demand/market. (S1, S2,S3,S4,S5,S6,S7,S8,T4,T5,T6,T7, T9)<br>2. Optimization of upstream production activities (fishing and aquaculture) through environmentally friendly production control and adequate infrastructure support (S1,S7,T1,T2,T3,T5,T8,T10) | (W-T) Strategy<br>1. Increasing the competency capacity of fisheries business actors (W1,W2,W3,W4,W5,W6,W7,W8,W9,W10, W11,W13,T1,T2,T3,T4,T5,T6,T9,T10)<br>2. Controlling the quality of fish catches through the provision of supporting facilities and infrastructure (W12,T7,T8,T10) |

Source: Primary Data Processed (2023)

Based on Table 5, the results of the SWOT matrix analysis produce 7 (seven) strategy formulations as an effort to develop leading businesses in the fisheries sector in Situbondo District. Next, an analysis of the priority strategy formulation was carried out using the Quantitative Strategic Planning Matrix (QSPM) analysis method.

**QSPM Matrix**

The QSPM matrix is the final stage of strategy formulation analysis in the form of selecting the best strategic alternative. The QSPM analysis aims to select a leading business development strategy for the fisheries sector in Situbondo District based on the priority strategy scale. Alternative strategies for developing leading business in the fisheries sector in Situbondo District based on TAS (attractiveness) values can be seen in Table 6.

**Table 6. Strategy Priorities Based on QSPM**

| No | Alternative strategies | TAS value (Attractiveness) |
|---|---|---|
| 1 | Increasing the competency capacity of fisheries business actors | 7.77 |
| 2 | Improving supply chain performance to increase the competitiveness of fisheries businesses | 7.70 |
| 3 | Supporting Government policies in creating a fair fisheries business climate | 7.68 |
| 4 | Make production planning based on demand/market | 7.62 |
| 5 | Optimization of upstream production activities (fishing and aquaculture) through environmentally friendly production control and adequate infrastructure support | 7.59 |
| 6 | Controlling the quality of fish catches through the provision of supporting facilities and infrastructure | 7.55 |
| 7 | Increase production results by optimizing assistance provided by the government | 7.48 |

Source: primary data processed (2023)

Based on the QSPM analysis, a sequence of priority strategies for developing leading businesses in the fisheries sector in Situbondo District was obtained:

1. Priority strategy I is developing the capacity of fisheries business actors. In this case, developing business capacity can be achieved through increasing mastery of production technology to increase production effectiveness and efficiency which will ultimately increase company income and profits. (Damayanti et al., 2019), developing human resource capacity for fisheries business actors and institutions in fisheries businesses. (Londa, 2020) (Londa, 2020), digitalization of fisheries businesses as an effort to respond to the digital era and increase digital literacy among business actors through digital training (Handayani, 2023).
2. Priority strategy II is improving supply chain performance to increase the competitiveness of fisheries businesses. Improving supply chain performance can be done through strengthening partnerships between partners, optimizing related institutions, and centralizing marketing information with the principles of mutual respect, benefit and both experiencing equal and fair benefits (Prayoga et al., 2017), optimizing the management of loading and unloading activities. at ports, and centralization of marketing information through providing adequate facilities and infrastructure (Prayoga et al., 2018), utilizing technology in production, optimizing production scheduling, increasing flexibility in meeting demand, and implementing quality assurance management standards (Setiawan et al., 2021), and improving supply chain management as an effort to improve supply chain performance (Sari et al., 2022).
3. Priority strategy III is support for Government policy in creating a fair fisheries business climate. In this case, government policy support is needed that favors medium and small scale fisheries business actors through the issuance of regulations and fair law enforcement for every business actor who violates the rules (Ismail, 2021). It also requires an active role from all components of business actors in creating a business climate. which is comfortable for all fisheries business actors (Tarigana et al., 2022), then all parties monitor and ensure good government policies and support the creation of a fisheries business climate that always runs well (Malik & Nur, 2018).

4. Priority strategy IV is to make production planning based on demand/market. In this case, forecasting is needed so that production planning is in accordance with demand based on the previous year's demand graph (Ratih, 2022), using the aggregate planning method to predict demand, facility capacity, labor supply and interrelated production inputs (Yuntria & Panji, 2020) and balancing production volume with demand because if production volume is above demand it will have an impact on additional costs for storage and will also bear the risk of product damage, but if production is below demand it will result in consumer disappointment (Ramli & Ismi, 2020)
5. Priority strategy V is optimizing upstream production activities (fisheries and aquaculture) through environmentally friendly production control and adequate infrastructure support. In this case, fishing activities must use environmentally friendly fishing gear so as not to damage the aquatic ecosystem. In general, fishing gear that is not environmentally friendly is fishing gear that catches fish without the consideration of various aspects relating to fish biology, ecosystem, safety of fishermen and the quality of the catch and is detrimental to sustainable fishing activities (Iriansyah et al., 2022), cultivation Fisheries avtivities must adhere to the principles of sustainability and environmental friendliness. Environmentally friendly fish farming practices will guarantee the sustainability of production which will also guarantee food security (Syamsuddin & Isyanita, 2022). Apart from that, in an effort to increase production productivity (fish catching and cultivation) it is required for it to receive support in terms of providing adequate infrastructure and utilizing this infrastructure properly. (Mandang et al., 2021).
6. Priority strategy VI is controlling the quality of fish catches through the provision of supporting facilities and infrastructure. In this case, it is necessary to provide supporting facilities and infrastructure for fishing activities and fish ports (Deni, 2018) which can be in the form of sanitation facilities and infrastructure and access to provide adequate electricity needs to fulfill the cold chain system, such as cold storage, air blast freezers, contact plates , ice flake machine, etc. (Mursit et al., 2022).
7. Priority strategy VII is to increase production output by optimizing assistance provided by the Government. In this case, ensuring that government assistance meets the needs of aid recipients and ensuring that aid recipients can make good use of this assistance. in this case, ensuring the aid to be on used effectively and to avoid any bad faith actors in the misuse of any aid involved (Pramuda et al., 2022). Furthermore, periodically the government must evaluate the aid provided to aid recipients to ensure that the aid provided is used effectively and appropriately in accordance to its goals (Suriadi et al., 2019).

## CONCLUSION AND SUGGESTION

### Conclusion

The priority strategies based on the QSPM matrix are 1) developing the capacity of fisheries business actors, 2) increasing supply chain performance to increase the competitiveness of fisheries businesses, 3) supporting Government policies in creating a fair fisheries business climate, 4)

making production plans based on demand/market, 5) optimizing upstream production activities (catching and cultivation) through environmentally friendly production control and adequate infrastructure support, 6) controlling the quality of fish catches through providing supporting facilities and infrastructure, and 7) increasing production results by optimizing assistance provided by the Government.

**Suggestion**

The Regional Government of Situbondo District must increase its commitment in supporting the development of leading businesses in the fisheries sector in Situbondo District. This form of commitment can be realized in a policy instrument in the form of the issuance of Regional Regulations as a legal umbrella in preparing programs and budget allocations for developing leading businesses in the fisheries sector.

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