

Planning Strategy Analysis Of Head Less Vannamei (L. Vannamei) Frozen Shrimp Processing Units In Kaur District, Bengkulu Province

Ogi Ahmad Sawawi¹, Achmad Poernomo², Aef Permadi³

¹Fisheries Business Expert Polytechnic of Jakarta
Jl. AUP No. 1 Pasar Minggu, 12520
Jakarta, Indonesia
Email: ogiahmad39@gmail.com

²Fisheries Business Expert Polytechnic of Jakarta
Jl. AUP No. 1 Pasar Minggu, 12520
Jakarta, Indonesia
Email: achpoernomo@gmail.com

³Fisheries Business Expert Polytechnic of Jakarta
Jl. AUP No. 1 Pasar Minggu, 12520
Jakarta, Indonesia
Email: aef.permadi@politeknikaup.ac.id



Abstract— Kaur Regency is one of the regencies in Bengkulu Province which has abundant production of vannamei shrimp (*L. vannamei*). The trend of vannamei shrimp (*L. vannamei*) production in Kaur Regency is always increasing every year. The production of vannamei shrimp (*L. vannamei*) in Kaur Regency in 2019 reached 950 tons until 2021 it reached 4,524 tons. The production results have not been utilized optimally by farmers but are only sold in the form of fresh shrimp. This study aims to determine priority strategies that can be developed in planning the head less vannamei (*L. vannamei*) frozen shrimp processing unit in Kaur Regency, Bengkulu Province. The data used consists of primary data and secondary data. Primary data was obtained from observations, interviews and questionnaires, while secondary data was obtained through publications, literature and processed using descriptive analysis and SWOT analysis methods. The results showed that the planning position of the head less vannamei (*L. vannamei*) frozen shrimp processing unit in Kaur Regency was in quadrant 1 (Aggressive Strategy) which meant fully utilizing all strengths through existing opportunities. Based on the results of the research, the priority strategy chosen is to build relationships between the government, stakeholders related to shrimp cultivators to collect production results, and an approach to local banks to be able to lend business capital.

Keywords— Vannamei Shrimp (*L. vannamei*), Kaur District, SWOT Analysis, Processing Unit Design, Head Less.

I. INTRODUCTION

Indonesia as a maritime country has a long coastline of 95,185 km with potential shrimp cultivation land of 3 million hectares (Reily, 2018). The area of shrimp ponds in Indonesia has 300 thousand hectares, and produces one ton of shrimp per hectare which is managed by fishermen (Yunianto, 2019). However, the shrimp industry has not been implemented optimally, causing difficulties in obtaining shrimp production facilities and the lack of application of technology to the shrimp industry is one of the factors hampering potential progress in the shrimp industry. To build a more advanced Indonesia, synergy is needed

between stakeholders such as: The government, private sector and society must work together to build a better Indonesia (Arviana, 2016).

Vannamei shrimp (*L. vannamei*) is one of the leading commodities produced by aquaculture which is popular with many people and people are enthusiastic about cultivating shrimp. Many fisheries business people are involved in the vannamei shrimp business because it has very good prospects and can provide big profits. The vannamei shrimp (*L. vannamei*) business is not only focused on rearing, but also has good opportunities in other aspects, such as utilizing the production of vannamei shrimp (*L. vannamei*) into processed frozen shrimp (Kurniawan, 2021).

Bengkulu Province with a coastline of 525 km extending towards the open sea has a sea area of 10,080 km² with potential for capture and aquaculture fisheries (brackish, freshwater and marine). The potential for cultivation is greater if you take advantage of the large amount of public (fresh) land and waters (DKP Bengkulu Province, 2021). Kaur Regency is one of the regencies in Bengkulu Province which has a lot of vannamei shrimp (*L. vannamei*) production, this is driven by the large number of shrimp ponds in Kaur Regency. Based on information from the Kaur District fisheries department, the number of vannamei shrimp (*L. vannamei*) ponds in 2021 will reach 340 ponds with a production output of 4,524 tons.

The potential of a region's fishing industry can be developed by knowing its potential. In an effort to develop its potential, appropriate strategies can be created to encourage appropriate industrial development. Strategy is a way of preparing actions carried out by company managers to achieve the company's mission, goals and objectives (Marwan et al., 2013). Strategic planning will help stakeholders, especially local governments, make the right decisions. To realize this, it is necessary to study the development strategy for the fish processing industry in Kaur Regency, Bengkulu Province. Based on the background above, the aim of this research is to determine priority strategies that can be developed in planning head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency, Bengkulu Province.

II. RESEARCH METHODS

The time for conducting the research was from 17 December 2021 to 15 June 2022. The research was carried out in Kaur Regency, Bengkulu Province. The data used consists of primary data and secondary data. Primary data was obtained from observations, interviews and giving questionnaires (Appendix 1) to agencies in Kaur Regency such as: Maritime Affairs and Fisheries Service (DKP Kaur Regency), Regional Development Planning Agency (BAPPEDA), vannamei shrimp cultivators (*L. vannamei*), and other related parties. This primary data is needed to determine the existing conditions of fisheries management in Kaur Regency. Meanwhile, secondary data was obtained through publications, literature, the Central Statistics Agency (BPS), and other related agencies to collect information regarding research that has been carried out previously and the latest developments regarding the management of fisheries industrialization in Kaur Regency.

Determination of Respondents

The determination of respondents in this study was carried out using a purposive sampling technique, namely respondents who were deemed to have information about the vannamei shrimp (*L. vannamei*) industry in Kaur Regency. The number of respondents in this study was 10 people, consisting of 2 people from the Provincial Maritime and Fisheries Service (cultivation sector, processing sector), 3 people from the Kaur Regency Maritime and Fisheries Service (cultivation sector, processing sector and Head of Service), 2 people from the Kaur Regency Regional Development Planning Agency (BAPPEDA) and 3 people from vannamei shrimp (*L. vannamei*) cultivators in Kaur Regency.

Data Processing Methods

The analytical method used in this research is descriptive analysis method and SWOT analysis. The descriptive analysis method is used to analyze the driving and inhibiting factors for planning head less frozen vannamei (*L. vannamei*) shrimp processing units by describing the current research object. Meanwhile, SWOT analysis was used to analyze the planning development strategy for head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency. SWOT analysis is used to see the strengths, weaknesses, opportunities and threats that the company will face. (Rahmayati, 2015).

Mulyadi (2005) stated that SWOT is strategic planning used to evaluate strengths, weaknesses, opportunities and threats in the company's environment. Meanwhile, according to Wulannata, (2017) SWOT analysis is a useful instrument in conducting

strategic analysis, in the context of this article it is aimed at assessing the strengths and opportunities in planning head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency, so that it is hoped that they will be able to minimize Weaknesses and threats contained in the planning of head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency.

Determining the IFAS and EFAS values is done by creating IFAS and EFAS matrices, where each matrix consists of a strategy factors column, a weighting column, a ranking column and a weight multiplication column with a rating. The steps in its preparation consist of:

1. In column one, determine the strengths, weaknesses, opportunities and threats
2. In column two, give a weight to each of these factors on a scale of 5 (very important) to 1 (not important)
3. In the third column, give a profit rating for each factor
4. In determining the rating value, positive factors (strengths and opportunities) are rated on a scale of 4 (very strong) to 1 (very weak)
5. For negative factors (weaknesses and threats) give a rating on a scale of 1 (very strong) to 4 (very weak)
6. In the 4th column, multiply the weight in the 2nd column by the rating in the 3rd column to obtain a weighting score for each factor
7. Add up the weighting scores for each factor to obtain the total weighting score

Next, the SWOT analysis is mapped into a matrix as a SWOT information table. Then look for the difference between internal factors which include strengths and weaknesses and external factors of opportunities and threats. Useful for selecting alternatives, SWOT analysis can also be used to make improvements and improvise by knowing strengths (strengths and opportunities) and weaknesses (weaknesses and threats) (Marwan et al., 2013).

III. RESULTS AND DISCUSSION

Analysis of Internal and External Factors

Internal factors are in the form of strengths and weaknesses, while external factors are opportunities and threats in planning head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency, Bengkulu Province. The factors that constitute the strengths, weaknesses, opportunities and threats in planning head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency, Bengkulu Province, are as follows:

1. Strength

Strengths include internal factors that drive business development. The strengths in planning the head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency, Bengkulu Province, consist of:

a. The quality of shrimp production is good

To maintain good shrimp production, farmers in Kaur Regency handle their shrimp harvest carefully and not haphazardly, attention to handling is the cleanliness of the equipment used, quick and careful handling, avoiding direct exposure to sunlight, wash the shrimp from dirt and mud with clean water then put them in a basket, bucket or barrel and douse them with clean water. During handling, use ice cubes that have been prepared by a processing company from Lampung Province to maintain the temperature of the shrimp to keep them cold, and group them according to type and size. Good shrimp production results from farmers will have a positive impact on the supply of raw materials in the planning of head less frozen vannamei (*L. vannamei*) shrimp processing units in the Regency.

b. The sorting process involves several experienced workers

Based on the results of an interview with one of the vannamei shrimp (*L. vannamei*) cultivators in Kaur Regency, the first stage carried out by the farmers was determining the size of the shrimp which was carried out after harvest. Next, the shrimp are sorted and separated based on the size of the shrimp. In the shrimp sorting room, the shrimp selected are good

quality shrimp, not molting and not deformed. The fresh shrimp are placed in a basket, then weighed and put in a box filled with ice to keep the shrimp fresh during the journey. Having experienced workers in the sorting department will help ease the work of planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency. Especially in the raw material reception section.

c. There are quite a lot of human resources (HR) in Kaur Regency

Based on labor data from (BPS Bengkulu Province, 2021) there are 25,619 people in Kaur Regency who do not have jobs, this shows that there are still many workers who can be invited to join as employees in the planning of the frozen vannamei (*L. vannamei*) shrimp processing unit head less which will be planned in Kaur Regency.

d. The number of vannamei shrimp (*L. vannamei*) ponds in Kaur Regency

DKP Kaur Regency (2022) stated that vannamei shrimp (*L. vannamei*) ponds in Kaur Regency are always increasing, in 2021 they will reach 340 ponds. The more vannamei shrimp ponds there are, the greater the opportunity to obtain production results, where these production results will later become raw materials for planning head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency.

e. Availability of planning locations for the construction of frozen shrimp processing units in Kaur Regency

Based on the results of interviews with DKP Kaur Regency, shrimp farmers and the Regional Development Planning Agency (BAPPEDA), there is still available land in Linau Village, Maje District, Kaur Regency to build a planning unit for processing head less vannamei (*L. vannamei*) frozen shrimp.

2. Weakness

Weaknesses include internal factors that hinder business development. Weaknesses in planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency, Bengkulu Province, consist of:

a. There are no investors yet

There is no frozen shrimp processing unit in Kaur Regency because there are no investors who are looking at the shrimp industry in Kaur Regency. Investors are one of the factors influencing the realization of planning for a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency. Investors are really needed because investors are people or institutions who will invest in planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency.

b. There is no ice factory yet

The ice factory is very helpful in providing raw materials for ice in the processing of freezing vannamei shrimp (*L. vannamei*). Especially in the frozen shrimp processing process, therefore an ice factory is very necessary for the continuity of planning for a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency.

c. Lack of electrical power

Currently Kaur Regency lacks electrical power, electric power in Kaur Regency reaches 26 MVA, but people in Kaur Regency still complain about the lack of electrical power due to the expansion of shrimp ponds in Kaur Regency, so that at peak loads, the electricity voltage becomes low, and consumes it takes a relatively long time to stabilize again, so this has a big influence on the planning of head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency, Bengkulu Province (Patnistik, 2021).

3. Opportunity

Opportunities that can be utilized by planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency, Bengkulu Province, consist of:

a. The production trend of vannamei shrimp (*L. vannamei*) in Kaur Regency continues to increase

DKP Kaur Regency (2022) stated that in 2017 the production of vannamei shrimp (*L. vannamei*) reached 750 tons/year, production continues to increase until in 2021 it reaches 4,524 tons/year. This shows that the availability of raw

materials for vannamei shrimp (*L. vannamei*) in Kaur Regency always increases every year. Availability of raw materials is one of the factors in the smooth production process in planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency, Bengkulu Province.

b. Domestic and international market opportunities

The high demand for vannamei shrimp (*L. vannamei*) in the domestic market is also supported by people's consumption patterns which prioritize health, thus influencing people towards food that has good nutritional content. Apart from that, the increasing population nationally, especially in urban areas, has also contributed to increasing demand for fishery products, including vannamei shrimp (*L. vannamei*) (KKP, 2019).

Shrimp consumption in Bengkulu Province is still relatively low compared to production results. Bengkulu Province shrimp consumption figures can be seen in Table 1

Table 1. Shrimp consumption figures for Bengkulu Province for 2017-2021

Per Capita Shrimp Consumption Figures in Bengkulu Province						
No.	Regency/City	Consumption (Kg) / Year				
		2017	2018	2019	2020	2021
1	South Bengkulu	0.42	0.57	0.78	0.99	0.78
2	Rejang Lebong	0.21	0.36	0.31	0.10	0.36
3	North Bengkulu	0.58	0.78	0.73	0.36	0.57
4	Kaur	0.41	0.62	1.51	0.99	0.99
5	Seluma	0.46	0.57	0.57	0.31	0.62
6	Muko-muko	0.85	1.66	0.99	0.99	1.09
7	Lebong	0.58	0.36	0.73	0.62	0.57
8	Kepahyang	0.68	0.83	0.05	0.36	0.10
9	Central Bengkulu	0.72	1.40	0.52	0.42	0.21
10	Bengkulu City	1.45	1.66	1.56	1.61	1.35
Total		6.36	8.84	7.75	6.76	6.66

Source: (KKP Statistics, 2022)

This shows that there is still a lot of vannamei shrimp (*L. vannamei*) production in Kaur Regency that has not been utilized for consumption so there is still a big opportunity to utilize the production results into processed frozen shrimp that can enter the domestic market.

Apart from domestic market opportunities, processed frozen shrimp in the planning of a head less vannamei (*L. vannamei*) frozen shrimp processing unit in Kaur Regency also has big opportunities in the export market, considering that frozen shrimp is one of the main commodities for Indonesian fishery exports (Mashari et al., 2019).

As one of the main shrimp producing countries in the world, Indonesia has the opportunity to increase shrimp exports to international markets in line with increasing world shrimp consumption (Mashari et al., 2019). This also provides an opportunity for planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency to support Indonesia in increasing shrimp exports to international markets.

c. Provincial government support for the vannamei shrimp (*L. vannamei*) industry

According to the Governor of Bengkulu Dr. H. Rohidin Mersyah that the fisheries potential in Bengkulu Province is very large. The regional government in Bengkulu provides opportunities for investors to manage Bengkulu's maritime wealth, especially the shrimp industry, so that Bengkulu's economy can improve further than now. Investment in planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency will also absorb a lot of labor and coastal resources will be utilized well. Apart from that, the Governor of Bengkulu also prioritizes frozen shrimp exports by providing easy licensing and capital assistance. by collaborating with banks to help investors who want to develop the shrimp industry in Kaur Regency (Musriadi, 2020).

d. Farm zoning expanded

In the revised Kaur Regency RTRW Regional Regulation, the area for aquaculture or shrimp ponds was expanded from the previous 99 hectares to 200 hectares. Fisheries zoning covers the entire coastline in Kaur Regency, from Tanjung Kemuning District, Semidang Gumay District, Kaur Tengah District, Permanent District, South Kaur District, Maje District to Nasal District (Afriawan, 2021). The expansion of pond zoning will provide opportunities for shooters and other parties to create new ponds or expand ponds. At the same time, this will provide additional opportunities for supply of raw materials for planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency.

4. Threats

Threats are factors external to the company that can hinder the smooth development of the business. Threats to the planning of head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency, Bengkulu Province, consist of:

a. Cannot expand the network to farmers because they already have their own connections

So far, fish farmers in Kaur Regency sell their harvests to processing companies in Lampung and local collectors/tokes in Kaur Regency. This can happen because so far some of the farmers have been able to borrow capital for pond operating costs from processing companies and collectors/tokes , so that most of the production results are sold to capital providers.

b. Shrimp farmers find it difficult to obtain business capital loans from banks

Banks are still reluctant to provide business credit to shrimp farmers, because it is considered a risky business. Considering that diseases in shrimp spread easily and will result in early harvest so that farmers will experience losses (Sumino, 2020). The limited business capital of farmers will affect the expansion of ponds, as well as affect shrimp production results. This will pose a threat to the supply of raw materials in the planning of head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency.

IFAS and EFAS matrices

After obtaining the internal and external factors, weighting and rating were carried out to determine the score for each factor using the IFAS and EFAS matrices presented in Tables 2 and 3.

Table 2. IFAS matrix for head less frozen vannamei (*L. vannamei*) shrimp processing unit planning in Kaur Regency, Bengkulu Province

No.	Internal Factors	Weight	Rating	Score
	Strength			
1	The quality of shrimp production is good	0.12	3.30	0.39
2	The sorting process involves several experienced workers	0.10	3.10	0.32
3	The availability of human resources (HR) in Kaur Regency is quite abundant	0.16	3.50	0.56

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4	The number of vannamei shrimp (<i>L. vannamei</i>) ponds in Kaur Regency	0.15	3.60	0.55
5	Availability of planning locations for the construction of frozen shrimp processing units in Kaur Regency	0.14	3.70	0.51
	Sub-Total	0.67	17.20	2.34
	Weakness			
1	There are no investors yet	0.12	2.70	0.32
2	There is no ice factory yet	0.11	2.20	0.25
3	Lack of electrical power	0.09	2.50	0.23
	Sub Total	0.33	7.40	0.80
	Total	1.00	24.60	3.14

The calculation results from Table 2 show that the strength factor matrix value is higher than the weakness factor, namely 2.34 and 0.80. This shows that the strength factor strongly supports the planning of a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency, Bengkulu Province. The strength factor that is considered the most important is the availability of human resources (HR) in Kaur Regency which is quite abundant with a score of 0.56, while the weakness factor that is considered the most important is that there are no investors with a score of 0.32.

Table 3. EFAS matrix for head less frozen vannamei (*L. vannamei*) shrimp processing unit planning in Kaur Regency, Province Bengkulu

No.	External Factors	Bobot	Rating	Skor
	Opportunity			
1	The production trend of vannamei shrimp (<i>L. vannamei</i>) in Kaur Regency continues to increase	0.21	3.60	0.76
2	Domestic and international market opportunities	0.19	3.00	0.56
3	Government support for the vannamei shrimp industry (<i>L. vannamei</i>)	0.16	3.80	0.60
4	Farm zoning expanded	0.20	3.80	0.76
	Sub-Total	0.76	14.20	2.69
No.	External Factors	Bobot	Rating	Skor
	Threat			
1	Cannot expand the network to farmers because they already have their own connections	0.13	2.30	0.29
2	Shrimp farmers find it difficult to obtain business capital loans from banks	0.12	2.20	0.26
	Sub-Total	0.24	4.50	0.55
	Total	1.00	18.70	3.23

The calculation results from Table 3 show that the matrix value of the opportunity factor is higher than the threat factor, namely 2.69 and 0.55. This shows that the opportunity factor supports the planning of a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency, Bengkulu Province. The opportunity factor that is considered the most important is that the trend of vannamei shrimp (*L. vannamei*) production in Kaur Regency continues to increase and pond zoning is expanded with a score of 0.76. Anissa, (2022) stated that Indonesian shrimp exports only fulfill 8.8% of the world's total shrimp demand. Indonesia is one of the world's shrimp exporters, where Indonesia ranks fifth in world exports after China, Ecuador, Vietnam and India.

The results of IFAS and EFAS matrix analysis in the planning of head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency, Bengkulu Province were analyzed using a position matrix to produce coordinate points (x, y). The x value is obtained from the difference between internal factors (strengths–weaknesses) and the y value is obtained from the difference between external factors (opportunities–threats).

The planning position of the head less vannamei (*L. vannamei*) frozen shrimp processing unit in Kaur Regency, Bengkulu Province is in quadrant 1 (Aggressive Strategy) which is a very favorable situation with the strength (S) and weakness (W) score values as the X ordinate point being 1 .53 and the value of opportunity (O) and threat (T) as the Y ordinate point is 2.82. Position in quadrant 1 which means taking full advantage of all strengths through existing opportunities. The strategy that must be implemented in this condition is to support aggressive growth policies (growth oriented strategy) (Primadona & Rafiqi, 2019). This means that this effort is in good condition so it is very possible to plan a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency. Therefore, several alternatives that can be implemented can be seen in the SWOT matrix presented in Table 4.

Matrik SWOT

Table 4. Matriks SWOT

IFAS	Strength (S)	Weakness (W)
	<ol style="list-style-type: none"> 1. Good quality of shrimp production 2. The process of sorting several experienced workers 3. The availability of human resources (HR) in Kaur Regency is quite abundant 4. The number of vannamei shrimp (<i>L. vannamei</i>) ponds in Kaur Regency 5. Availability of planning locations for the construction of frozen shrimp processing units in Kaur Regency 	<ol style="list-style-type: none"> 1. There are no investors yet 2. There is no ice factory yet 3. Lack of electrical power
EFAS	Opportunity (O)	Threat (T)
	<ol style="list-style-type: none"> 1. The production trend of vannamei shrimp (<i>L. vannamei</i>) in Kaur Regency 	<ol style="list-style-type: none"> 1. Development of vannamei shrimp (<i>L. vannamei</i>) cultivation areas
	Strategy (SO)	Strategy (WO)
		Immediately build facilities such as an ice factory and additional

<p>continues to increase</p> <p>2. Domestic and international market opportunities</p> <p>3. Government support for the vannamei shrimp industry (<i>L. vannamei</i>)</p> <p>4. Farm zoning expanded</p>	<p>2. Recruit competent workers in planning a head less frozen vannamei (<i>L. vannamei</i>) shrimp processing unit in Kaur Regency</p> <p>3. Collaborate with the government to establish foreign trade relations for the production of head less frozen vannamei (<i>L. vannamei</i>) shrimp processing unit planning in Kaur Regency</p>	<p>electrical power to support the continuity of planning for a head less frozen vannamei (<i>L. vannamei</i>) shrimp processing unit in Kaur Regency</p>
<p>Threat (T)</p> <p>1. Cannot expand the network to farmers because they already have their own connections</p> <p>2. Shrimp farmers find it difficult to obtain business capital loans from banks</p>	<p>Strategy (ST)</p> <p>Build a cold storage to accommodate the production results of the head less vannamei (<i>L. vannamei</i>) frozen shrimp processing unit planning in Kaur Regency</p>	<p>Strategy (WT)</p> <p>1. The local government and related stakeholders are looking for investors to realize the planning for a head less frozen vannamei (<i>L. vannamei</i>) shrimp processing unit in Kaur Regency</p> <p>2. Building relationships between the government, stakeholders related to shrimp farmers to collect production results, as well as approaching regional banks to be able to lend business capital to farmers so they can increase their pond business which will have an impact on shrimp production.</p>

Table 4 shows that there are alternative strategies in planning head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency, Bengkulu Province, namely SO (strengths-opportunities), WO (weakness-opportunities), ST (strengths-threats), WT strategies. (weakness-threats). The alternative strategy for planning head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency, Bengkulu Province after carrying out a SWOT analysis is as follows:

SO Strategy

The raw materials for planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit come from shrimp farmers in Kaur Regency. During handling from the farmer to the frozen vannamei (*L. vannamei*) shrimp processing unit head less shrimp will experience a decomposition process caused by bacterial enzyme activity, so that it can affect the quality of the raw material, however this risk will be minimized during handling from the farmer to the head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency using ice which will be prepared by the head less frozen vannamei (*L. vannamei*) shrimp processing unit to maintain the quality of raw materials from the farmers. Apart from that, the head less frozen vannamei (*L. vannamei*) shrimp processing unit can prepare professional workers in the field of handling shrimp after harvest until handling the shrimp into the head less frozen vannamei (*L. vannamei*) shrimp processing unit in order to get good quality raw materials. .

The shrimp processing industry plays a very important role in supporting the regional economy, especially Kaur Regency, Bengkulu Province. This is understandable because the shrimp industry sector involves many people starting from production, technicians to distribution. The government is committed to empowering the people's economy in the shrimp industry. The role of the shrimp industry is that it is able to absorb a large workforce by taking into account every ability and experience in each field of work, so that the shrimp industry, apart from playing an important role in supporting economic progress, also plays a role in overcoming the unemployment rate.

Recruiting competent workers in each field of work plays an important role in increasing the productivity of head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency, Bengkulu Province. Recruitment of workers can be done by hiring consultants to look for professional workers, so that the head less vannamei (*L. vannamei*) frozen shrimp processing unit can find workers that suit the needs in each field of work in the frozen vannamei shrimp processing unit (*L. vannamei*) head less in Kaur Regency, Bengkulu Province.

Improving the quality of human resources in facing the international market by improving the skills of each worker who will join the head less frozen vannamei (*L. vannamei*) shrimp processing unit so that they can carry out all processing operational processes effectively and exceed the company's planned expectations, this can be done by carrying out training and counseling for all employees who will join the frozen vannamei (*L. vannamei*) head less shrimp processing unit in Kaur Regency, Bengkulu Province.

ST Strategy

Kaur Regency does not yet have a special cold storage to accommodate the planned production of the head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency. DKP Kaur Regency stated that currently Kaur needs investors who want to build a cold storage warehouse.

Seeing the phenomenon that occurs above, it is necessary to take the initiative to build a cold storage facility unit. This facility aims to provide frozen shrimp storage space requirements for head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency before they are marketed with the aim of ensuring that the quality of the production results is guaranteed during the handling and marketing process.

In general, the construction of a frozen shrimp storage factory (cold storage) is expected to increase the selling value of head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency.

WO Strategy

The role of the regional government, DKP Kaur Regency and related stakeholders is very important to support the development of the shrimp industry in Kaur Regency. The planning that must be carried out immediately is the construction of an ice factory and additional electrical power. This really supports the continuity of planning for a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency.

It is hoped that the construction of the ice factory will contribute to the frozen shrimp processing process. Additional electrical power is highly expected by the head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency, because the production process requires a lot of electricity, such as production machines, office equipment and other processing equipment that is directly connected to electricity.

WT Strategy

Investors and the production of vannamei shrimp (*L. vannamei*) are very important in realizing the planning for a head less frozen vannamei shrimp (*L. vannamei*) processing unit. The role of the government and related stakeholders is really needed to get investors and collect the results of vannamei shrimp (*L. vannamei*) production in Kaur Regency.

The suggestions from researchers for obtaining investors are as follows:

1. Regional Government can create a profile of Kaur Regency:

The first way to get investors is to create a profile for Kaur Regency and spread the word on social media, Facebook, Instagram, until it is published in online news. Creating this profile is one of the first steps that can be taken in looking for investors. The contents of the profile are as follows:

a) Geographical Conditions

Geographically, Kaur Regency is located between 103° 4'8.76"-103° 46'50.12" East Longitude and 04° 15'8.21"-5° 27.77" South Latitude. This district is the southernmost region of Bengkulu Province and borders directly with Lampung Province and South Sumatra Province. Extending in the western part of Kaur Regency is the 108.6 km long

Indian Ocean. Based on Minister of Home Affairs Letter No. 136/205/OPUM dated 12 September 2005 Kaur Regency has a land area of 2,556 km², a coastline of 106.6 km. Thus, the sea area 4 miles from the coastline covers an area of 789.7 km².

b) Population

In 2020, the population of Kaur Regency was 135,200 people with a density of 57 people/km². Kaur Regency consists of 195 villages & sub-districts which are led by the village head / sub-district head and there are several hamlet heads under him. The people of Kaur district work a lot in the agriculture, trade, plantation, fishery and livestock sectors such as cattle, bunge clove diwe leaves, serian wood, Bintuhan copra, teak wood, ali-ali roots, goats, ducks, alingguang, centipedes, kekik fish, fish nawi, mullet, buffalo, native chicken and scout chicken, catfish, village shrimp and pond shrimp and others.

c) Kaur Regency UMR

Kaur Regency's UMR in 2022 is IDR 2,387,220.

d) Potential of vannamei shrimp (*L. vannamei*)

The production trend of vannamei shrimp (*L. vannamei*) in Kaur Regency continues to increase. DKP Kaur Regency (2022) stated that in 2017 the production of vannamei shrimp (*L. vannamei*) reached 750 tons/year, production continues to increase until in 2021 it reaches 4,524 tons/year.

e) Market opportunities for vannamei shrimp (*L. vannamei*)

The high demand for vannamei shrimp (*L. vannamei*) in the domestic market is also supported by people's consumption patterns which prioritize health, thus influencing people towards food that has good nutritional content. Many of the production results of vannamei shrimp (*L. vannamei*) in Kaur Regency are still not utilized for consumption so there is still a big opportunity to utilize the production results into processed products such as frozen shrimp which can enter the domestic market. Apart from domestic market opportunities, Kaur Regency also has great opportunities in the export market, considering that shrimp is one of Indonesia's main fishery export commodities (Mashari et al., 2019).

f) Government support

The Kaur Regency Government has opened its doors to shrimp pond investors as an effort to accelerate the community's economic growth. For this reason, the Kaur District Government has prepared a regional spatial plan (RTRW) which provides the opportunity to open ponds in all sub-districts along the coast of Kaur Regency. PEMKAB Kaur provides ease of business licensing and helps investors to collaborate with the Regional Development Bank (BPD).

g) Facilities and Infrastructure

Transportation Infrastructure

- Land transportation facilities: The roads in Kaur Regency are 504.91 km long in the form of State roads, Provincial roads and Regency roads. Road conditions consist of Hotmix, asphalt, coral and dirt roads.
- Pioneering Air Transportation Facilities: Planning for the construction of a pioneering airfield in Kaur Regency has so far only completed a feasibility study, with the prospective location being in Nusuk Village, Semidang Gumai District. The planned land area is 12 Ha. It is hoped that the construction of this pioneering airfield will speed up the transportation of aquaculture products to consumers in Jakarta in fresh condition, so that the quality meets export standards at a selling price enjoyed by cultivators that is more profitable than when marketed locally.
- Sea Port Facilities: Linau Natural Harbor is a means of sea transportation in Kaur District which is one of the connecting ports with the Baai Island port in Bengkulu Province.
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Basic Facilities

- Standard Electricity (PLN)
- Clean Water Available (PDAM)
- Cellular Telecommunications

Regional Support Tools

- Kaur District Government
- Department of Agriculture
- Department of Industry and Trade and Cooperatives
- Food Security Service
- UPTD for Fisheries scope
- Banking (Bank Bengkulu, Bank Rakyat Indonesia, Bank Mandiri, Bank Nasional Indonesia)

2. Building a network (relationships)

The next way to get investors is to build a network or relationships. Building relationships will open the way to entering a startup community. DKP Kaur Regency and related stakeholders are looking for information about investors by asking for recommendations from frozen shrimp companies that have been funded by investors. That way, you can ask frozen shrimp processing companies that are already running about how to convince investors and investors who are suitable for planning a head less frozen shrimp vannamei (*L. vannamei*) processing unit in Kaur Regency. Usulan dari peneliti untuk menghimpun hasil produksi udang vannamei (*L. vannamei*) di Kabupaten Kaur sebagai berikut :

Building relationships between the government and related stakeholders with vannamei shrimp (*L. vannamei*) farmers in Kaur Regency by carrying out approaches such as weekly visits to educate and provide price offers to the farmers, this is done to collect the farmers' production results. As well as an approach to regional banks to be able to lend business capital to farmers so they can increase their pond business which will affect shrimp production. This is done in order to meet the needs of the frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency, Bengkulu Province.

Priority planning strategy for head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency.

From the various strategic formulation analyzes that have been carried out, in the end it is necessary to select strategic priorities that can increase the greatest opportunity in realizing the planning for a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency. In this research there are 3 levels of priority importance, namely focus, criteria and alternative strategies. The levels of priority importance are as follows:

1. The focus is planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency.
2. Criteria, namely elements/measures that form the basis of assessment that can influence the success of implementing alternative strategies from the specified focus (Putinur et al., 2019). The identification results obtained show the determining criteria that influence the success of planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency, namely:
 - Convenience (K1)
 - Cost (K2)
 - Human Resources (K3)
 - Infrastructure (K4)
3. Alternative strategies taken to develop planning for head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency, as follows:

- Development of vannamei shrimp (*L. vannamei*) cultivation areas (S1)
- Recruiting competent workers in the planning of head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency (S2)
- Collaborating with the government to establish foreign trade relations for production results planning head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency (S3)
- Immediately build facilities such as an ice factory and additional electrical power to support the continuity of planning for a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency (S4)
- Building cold storage to accommodate the production results of the planning for a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency (S5)
- The local government and related stakeholders are looking for investors to realize the planning for a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency (S6)

Building relationships between the government, stakeholders related to shrimp farmers to collect production results, as well as approaching regional banks to be able to lend business capital to farmers in order to increase their farming business which will affect shrimp production (S7)

Information:

K= Criteria

S= Strategy

Data processing was carried out after the questionnaires were collected and filled in by 3 respondents from the cultivation sector, 2 respondents from DKP Kaur Regency and 3 respondents from students. Analysis to obtain priority strategies can be seen in Appendix 2.11.

Based on the results of the respondent's assessment, they are selected based on the highest assessment measure of possible and very possible for each strategy with predetermined criteria. The criteria most frequently chosen by respondents were convenience and the priority strategies chosen to be carried out first in planning head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency based on the order:

- (1) Building relationships between the government, stakeholders related to shrimp farmers to collect production results, as well as approaching regional banks to be able to lend business capital to farmers so they can increase their pond business which will have an impact on shrimp production.
- (2) Recruit competent workers in planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency.
- (3) Cooperate with the government to establish foreign trade relations for the production results of planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency.
- (4) Immediately build facilities such as an ice factory and additional electrical power to support the continuity of planning for a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency.
- (5) Development of vannamei shrimp (*L. vannamei*) cultivation areas
- (6) Building a cold storage to accommodate the planned production of a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency.
- (7) The local government and related stakeholders are looking for investors to realize the planning for a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency.

Based on the results of the analysis above, it can be explained that the criteria that influence the achievement of planning for head less frozen vannamei (*L. vannamei*) shrimp processing units in Kaur Regency are convenience. Convenience plays an important role in carrying out a program or strategy so that the desired goals can be achieved. The ease of building relationships

between local governments, stakeholders related to shrimp farmers and banks will make it easier to collect shrimp production results, as well as make it easier for farmers to borrow business capital from banks. In order to achieve the goal, namely planning a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency, the priority strategy that needs to be carried out is building relationships between the government, stakeholders related to shrimp farmers to collect production results, as well as approaching banks to can lend business capital to farmers so they can increase their farming business which will affect shrimp production.

Regional governments need to approach and provide guidance to shrimp farmers through fisheries instructors, Non-Governmental Organizations (NGOs) and other related organizations and agencies. This approach can be carried out by regularly visiting farmers, holding seminars and counseling in order to build good relationships with farmers and approaching banks to help farmers obtain additional capital in developing vannamei shrimp (*L. vannamei*) cultivation in Kaur District.

The action plan carried out to support the planning of a head less frozen vannamei (*L. vannamei*) shrimp processing unit in Kaur Regency needs to consider the impacts, namely: low implementation costs, large impacts and easy to implement (Putinur et al., 2019).

IV. CONCLUSION

Based on the results of the SWOT analysis, there are 7 strategies that can be developed and the priority strategies to be developed are building relationships between the government and stakeholders related to shrimp farmers to collect production results, as well as approaching regional banks to be able to lend business capital to farmers so they can increasing pond business which will affect shrimp production.

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