

Marketing Strategy for Vaname Shrimp (*Litopenaeus Vannamei*) Case Study: Pematang Guntung Village, Teluk Mengkudu District, Serdang Bedagai Regency

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ABSTRACT

This study demonstrates how identifying and developing marketing strategies for whiteleg shrimp farmers in Pematang Guntung Village is crucial, and the identification of appropriate marketing channels is crucial. This study is expected to formulate external and internal factors that can be used to identify strengths, weaknesses, opportunities, and threats, and recommend more effective marketing strategies, enabling farmers to increase income and obtain certainty about selling prices. The subjects of this study were six whiteleg shrimp farmers in Pematang Guntung Village, Teluk Mengkudu District, Serdang Bedagai Regency. The sampling technique used was a purposive sample with data collection using a questionnaire. This study uses a SWOT analysis which is an analysis to systematically identify various factors to formulate the right strategy in the cultivation of whiteleg shrimp (*Litopenaeus vannamei*). The results of the study state that the Internal factors used to see strengths are: 1). Getting assistance from the government, 2). The ordered shrimp are in accordance with consumer demand, 3). Adequate facilities and infrastructure, 4). Having a skilled, experienced and highly dedicated workforce, 5). Easy to get seeds and which are used to see weaknesses: 1). The product has not met customer demand, 2). Product promotion does not use media, 3). Unable to fulfill shrimp orders quickly, 4). The product is not durable, 5). Lack of technology that can support whiteleg shrimp cultivation. External Factors used to see Opportunities: 1). Many people interested in vannamei shrimp in the market, 2). Having a relatively high selling price, 3). Big business opportunities, 4). Technological improvements that can increase production, 5). Government policies that support and are used to see Threats: 1). A lot of competition in selling vannamei shrimp, 2). Not all of the released shrimp fry can develop well, 3). Consumer orders are not always fulfilled, 4). Lack of interest of the younger generation to cultivate vannamei shrimp, 5). Pest and disease attacks. Based on the SWOT analysis diagram that explains the external and internal factors in cell (quadrant) I shows the SO (Strength-Opportunities or Strengths and Opportunities) strategy, namely marketing shrimp by calculating production costs and looking at market prices. Collaborating with potential customers. Increasing the use of technology in an effort to increase production and in the SWOT matrix, namely supporting an aggressive strategy. This strategy explains that the strategy is very profitable for the business because it has opportunities and strengths in business progress, especially the

vaname shrimp farming business in Pematang Guntung Village, Teluk Mengkudu District, Serdang Bedagai Regency.

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1. INTRODUCTION

Indonesia is known as a maritime and agricultural nation, boasting a vastly larger water area than land. As an agrarian nation, Indonesia holds significant potential in the agricultural sector, particularly in the management of rice paddies and ponds, which are the primary sources of food and fisheries production. According to data from the Ministry of Maritime Affairs and Fisheries (KKP) in 2021, the area of ponds in Indonesia reached 785,088.28 hectares. These ponds encompass a variety of uses, such as fish farming, salt production, and other fisheries activities, which play a vital role in supporting the national economy and food security [1].

[2] In Indonesia, in the last decade, shrimp farming has been steadily developed in response to global shrimp market demand. The development of vaname shrimp farming has rapidly replaced other shrimp farming, the main reasons for the shift from other shrimp farming to vaname shrimp include the rapid growth rate of vaname shrimp and their low susceptibility to disease. This is indicated by the decline in production in other shrimp farming industries due to viral pathogens attacking warehouses, shrimp production then increased rapidly again after vaname shrimp were cultivated.

Indonesia also has an important position in the main economic activity of fisheries, with abundant marine resources, currently seafood production growth reaches 7% per year, thus placing Indonesia as the

largest producer in Southeast Asia (MP3EI 2011-2025) [3].

Aquaculture is a development subsector with significant potential to become a source of economic growth in Indonesia. Strategically, aquaculture is expected to significantly contribute to realizing food sovereignty, particularly in providing quality protein for the health, intelligence, and prosperity of the community. The government continues to pursue various measures to increase the productivity of the fisheries sector, including freshwater, brackishwater, and seawater fisheries. One of the priority brackishwater commodities is shrimp. Shrimp is a leading Indonesian fishery commodity due to its substantial resource potential, high sales value, and excellent market opportunities, as demand for shrimp is very high both domestically and internationally [4].

Vaname is one of the aquatic commodities that is often cultivated, this shrimp is relatively easy to cultivate compared to tiger shrimp, that is also what makes many shrimp farmers in the country try it in recent years. [5] The high market demand for vaname shrimp makes competition between cultivators increasingly tight, thus requiring entrepreneurs to be able to compete to achieve the planned goals. One of the important factors that influences the success of a business is the marketing factor. One of the tools that can be used to achieve previously designed goals is strategy, and marketing strategy is used as a tool to achieve

marketing goals. Efforts to increase the effectiveness of strategies and policies taken require a deep understanding of the factors that influence the development of vaname shrimp commodities, so a SWOT analysis can be used. This analysis is based on logic that can maximize strengths (Strengths), and opportunities (Opportunities), but simultaneously can minimize weaknesses (Weaknesses) and threats (Threats) [6].

In Serdang Bedagai Regency, whiteleg shrimp (*Litopenaeus vannamei*) is a leading commodity for shrimp farmers. Its popularity is due to its high economic value and competitive selling price. In addition, whiteleg shrimp has technical cultivation advantages, such as disease resistance, fast growth, and the ability to be cultivated in high densities. [7] One of the centers of whiteleg shrimp production in Serdang Bedagai is Teluk Mengkudu District. Based on documents and academic studies using data from the Fisheries Service of Serdang Bedagai Regency, the track record of whiteleg shrimp cultivation production in Teluk Mengkudu District once reached 826 tons in a year. This figure makes Teluk Mengkudu one of the coastal areas with the highest aquaculture productivity in the region, however, the abundant harvest creates challenges in marketing, considering that shrimp is a perishable commodity. Special handling, such as storage with refrigeration and transportation using refrigerated vehicles, is very necessary to maintain product quality. [8].

There are several previous studies related to marketing strategies, including [9] which examined the marketing strategy for vanamei shrimp logs in Lamongan Regency. Evaluation of marketing strategies for shrimp ponds in Teluk Pambang Village (Case Study of the Independent Generation Production Cooperative) [10] Marketing strategies for vanamei shrimp at PT DPP, Kaur Regency [11] Marketing strategies for vanamei shrimp at shrimp ponds at PT. Cendana Prioritas Lestari, Central Bengkulu Regency [12].

The majority of vanamei shrimp farmers in Pematang Guntung Village, Teluk Mengkudu District, use traditional technology rather than semi-intensive technology due to limited capital. Furthermore, vanamei shrimp farming relies on limited experience and skills. Vanamei shrimp farming is still relatively low, as most farmers use a single inlet and outlet, which leads to deteriorating water quality.

In Pematang Guntung Village, Teluk Mengkudu District, Serdang Bedagai, the marketing process for whiteleg shrimp still relies on four collectors. Farmers generally sell their harvest directly to collectors without a specific marketing strategy. In this system, pricing is controlled by collectors, so farmer profits are often suboptimal. Furthermore, the lack of price guarantees from collectors exacerbates the situation. [13] This limitation is caused by the lack of an institution such as a cooperative in Pematang Guntung Village that can protect the interests of farmers. The establishment of a cooperative or similar organization could be an effective solution in increasing farmer bargaining power and reducing the dominance of middlemen [14].

The implementation of appropriate marketing strategies, such as market segmentation analysis, competitive pricing, effective promotion, and efficient distribution, is also important to increase sales of whiteleg shrimp. Cultivators need to understand consumer needs and preferences, and follow market trends to be able to compete effectively. By implementing these strategies, it is hoped that whiteleg shrimp cultivators in Pematang Guntung Village can increase income, obtain certainty of selling prices, and reduce dependence on a single container. This will have a positive impact on the welfare of cultivators and local economic development [13]. Therefore, research aimed at identifying and developing marketing strategies for whiteleg shrimp cultivators in Pematang Guntung Village is very important, and the identification of appropriate marketing channels. This research is expected to formulate external and internal factors that can be used to see strengths, weaknesses,

opportunities and threats and more effective marketing strategies that can be recommended, so that cultivators can increase income and obtain certainty of selling prices.

2. LITERATURE REVIEW

2.1 *Whiteleg Shrimp Cultivation*

Whiteleg shrimp is a frequently cultivated shrimp species due to its promising prospects and profitability. Whiteleg shrimp management activities include seeding and rearing to produce superior whiteleg shrimp. Therefore, the cultivation process must consider internal aspects, including origin and seed quality, as well as external factors, including cultivation water quality, feeding, and pest and disease control [15].

The following are the stages of whiteleg shrimp cultivation:

1. Pond Land Preparation

In a sterilized pond, or one that has been confirmed free of pests that could interfere with the growth of whiteleg shrimp, such as wild fish and crabs, the pond is eradicated by sponge cleaning. Any remaining stagnant water in certain areas must be drained until completely dry to kill any pathogenic bacteria on the pond equipment. Fertilization is then carried out with liquid fertilizer and agricultural lime. Next, water is gradually added to the pond according to the water level. Wait 2-3 weeks until the water is completely ready for stocking whiteleg shrimp seeds

2. Seed Distribution

Vaname shrimp fry are released after plankton growth has been established (7-10 days) after fertilization. Fry distribution is carried out in the

morning or evening to avoid stress due to temperature differences between the transport medium and the pond.

3. Maintenance

Maintenance must include checking for leaks in embankments or sluice gates, checking water levels, and monitoring water quality in the ponds.

4. Pest and Disease Control

In whiteleg shrimp cultivation, several preventative measures are necessary to combat the emergence of shrimp diseases and pests. Prevention is achieved through biosecurity measures and the application of probiotics.

Pest and disease control that requires the use of fish medicines must consider the food safety aspects of fishery products, namely the types or brands registered with the Ministry of Maritime Affairs and Fisheries.

5. Harvest

Harvest must consider shrimp price, growth, and health. Shrimp are harvested according to market demand and availability. Harvesting can begin when the shrimp are 70-110 days old and weigh between 12-15 grams per shrimp. Pre-harvest treatment includes evenly applying dolomite lime to the pond and maintaining the water level to prevent mass moulting of the shrimp before and during harvest. Harvesting equipment includes harvest baskets, nets installed at the sluice gates, throw nets, buckets, basins, and lighting. Harvesting involves draining the pond water with a water pump, while simultaneously catching the shrimp using shrimp nets.

Some vannamei fish cultivation technologies are as follows:

a. Traditional Whiteleg Shrimp Cultivation

This cultivation system uses irregular pond plots, each plot measuring 1 hectare. Each pond has a perimeter channel (caren) typically 5-10 m wide. A diagonal channel is also constructed in the center, running from corner to corner (diagonal), with a depth of 30-5 cm. Traditional ponds are fertilized so that productivity is independent of natural feed sources, natural fertility, and pest control. The average stocking rate is 3,000 postlarvae per hectare, with approximately 500-2,000 fry per hectare, in ponds ready for stocking. This traditional method does not use any infrastructure but relies solely on existing natural resources [16].

b. Intensive Technology Whiteleg Shrimp Cultivation

Intensive technology is a capital-intensive and high-tech shrimp cultivation method. The shrimp's growth relies entirely on artificial feed, and requires extensive efforts to control water quality, particularly using water wheels to maintain dissolved oxygen levels and manage organic matter content. Whiteleg shrimp have been introduced and thrive in Indonesia, and almost all businesses using intensive technology cultivate this type of shrimp. Some of the advantages experienced by farmers include high productivity, responsiveness to feed, greater disease resistance, a large market share, and the

ability to sell in small to medium sizes (15-25 grams per shrimp). The equipment used in intensive technology is a water wheel, which maintains dissolved oxygen levels in the organic matter [17].

The main problem that often results in the failure of whiteleg shrimp production is poor water quality during the cultivation period, especially in intensive pond management. High stocking densities and excessive feeding can degrade water quality.

2.2 Business Development Strategy

1. Definition of Strategy

The word "strategy" comes from the words "strategic," meaning plan, and "strategy," meaning strategy. Strategy is the basis for action that guides top management decisions and the company's resources that implement them. Strategy also impacts the long-term life of an organization. Strategy has multifunctional consequences, meaning its formulation requires consideration of both internal and external factors facing the company. From the definition above, it can be concluded that strategy is a planned process to achieve long-term company goals. Once the strategy has been implemented, it will be known whether the company is performing well or not [18]

2. Strategic Planning

Planning plays a crucial role in life because it determines and provides direction for achieving desired goals. With thorough planning, a project will not be messy and unfocused. Thorough and well-organized planning well will have an impact on the achievement of goals. Strategic planning is a leadership

instrument and a process. It determines what the organization wants in the future and how to achieve it, a process that clarifies goals [19]. In fact, strategic planning is a process in making strategic decisions or offering methods for formulating and implementing strategic decisions and allocating resources to support work units and the environment within the organization. The meaning of planning cannot stand alone and is limited to one understanding. This is due to the diverse meaning of planning in various fields of science. The meaning of planning depends on the perspective and background that influence a person. planning, implementation, and evaluation are followed by improvement activities so that a form is obtained that is considered adequate [20].

2.3 *Business Development*

1. Definition of Development

Development is the process, method, and act of development. Development is a planned effort by an organization to improve the knowledge, skills, and abilities of employees. Development emphasizes increasing knowledge for future work, which is carried out through an integrated approach with other activities to change work behavior. From the definition above, it can be concluded that development is everything carried out to improve current and future work implementation, providing information, direction, regulation, and guidance for business development.

2. Definition of Business

A business is a permanent and continuous activity with the goal of making a profit, whether carried out by an individual or a business entity, whether a legal entity or not, established and domiciled within a country. Therefore, it can be concluded that a business is an activity that includes production and distribution activities using energy, thought, and body to achieve a goal.

Based on the above definition, researchers can conclude that business development is the responsibility of every entrepreneur, requiring foresight, motivation, and creativity. If every entrepreneur can achieve this, there is great hope of transforming a small business into a medium-scale or even large enterprise. Business activities can begin with starting a business, establishing partnerships, or acquiring another business, better known as franchising. However, what needs to be considered is the direction the business will take. Therefore, development is needed to expand and maintain the business so that it can run smoothly. Implementing business development requires support from various aspects such as production and management, marketing, human resources, technology, and others.

2.4 *Business Development Factors*

In running a business, one must have the desire to achieve success.

The following are the main factors that enable an industry to develop well if it has them.

1. Capital

Capital is used to build assets, purchase raw materials, recruit workers, and so on to carry out industrial activities.

2. Labor

A workforce with sufficient quantity and quality standards that meet the needs of an industry will certainly ensure the industry runs smoothly and is capable of future growth.

3. Raw Materials

Raw materials are a crucial element that significantly influences an industry's production activities. Without sufficient raw materials, the production process can be hampered and even halted.

d. Transportation

Transportation facilities are essential for each industry, whether for transporting raw materials to the industrial site, transporting and delivering workers, transporting finished goods to distribution agents or distributors or to the next production stage, and so on.

4. Energy Sources

Modern industrial power requires energy sources to operate various production machines and power supporting equipment. Energy sources can take various forms, such as fuel oil, coal, natural gas, electricity, methane, and so on.

5. Marketing

Marketing production output can be sold to generate the expected profit as income to finance subsequent production activities [21]. Business development strategies must consist of four components: product, sales system, integration, and synergy [22].

a. Product

Business development is carried out by developing products according to market tastes, launching new, innovative products, and finding efficient production methods to ensure quality products.

b. Sales

Sales are carried out by building good relationships with consumers and ensuring customer satisfaction.

c. Integration

Integration is developing a business by expanding the company.

d. Synergy

Synergy is building synergy within a company and expanding social networks outside the company. Synergy can be built by recruiting talented employees from the business sector, collaborating with other companies, and expanding market reach. Therefore, it can be concluded that business development strategy is the task and process of preparing an analysis of potential growth opportunities, supporting and monitoring the implementation of business growth opportunities, but does not include strategic decisions and implementation of business growth opportunities. Meanwhile, for large businesses, especially in the industrial technology sector, business development is a term that often refers to establishing and managing strategic relationships and alliances with others.

3. METHODS

This study uses a quantitative descriptive method. In general, qualitative research is not patterned with a design format

consisting of three models, namely descriptive format, verification format, and grounded research format. The research subjects were vaname shrimp farmers in Pematang Guntung Village, Teluk Mengkudu District, Serdang Bedagai Regency, totaling 6 farmers. The sampling technique used was a purposive sample with data collection using a questionnaire. The data used in this study are primary data. This study uses a Likert Scale as a measurement tool in data collection. The Likert Scale is used to measure the perceptions, opinions, or responses of farmers regarding various aspects studied, such as marketing challenges, distribution strategies, and satisfaction with the existing marketing system. Respondents will be asked to provide an assessment by choosing the level of agreement or disagreement with the statements submitted. The scale used is a scale of 1 - 4, namely:

- 1 = Very Unimportant
- 2 = Unimportant
- 3 = Important
- 4 = Very Important

This study uses a SWOT analysis, which is an analysis to systematically identify various factors to formulate the right strategy in the whiteleg shrimp (*Litopenaeus vannamei*) cultivation business [23]. With this analysis, farmers can maximize their strengths and opportunities, and minimize their weaknesses and threats. The purpose of applying a SWOT analysis in the whiteleg shrimp cultivation business is to provide a comprehensive picture of the existing strengths, weaknesses, opportunities, and threats, so that it can be used as a basis for making strategic decisions to increase productivity and income [24].

Through a SWOT analysis, vaname shrimp farmers can conduct a comprehensive evaluation of their strengths, weaknesses, opportunities, and threats. By conducting this analysis, farmers can design activities based on their strengths to take advantage of available opportunities, as well as minimize or even transform potentially detrimental threats into new, profitable opportunities [25].

Through a SWOT analysis, vaname shrimp farmers can conduct a comprehensive evaluation of their strengths, weaknesses, opportunities, and threats. By conducting this analysis, farmers can design activities based on their strengths to take advantage of available opportunities, as well as minimize or even change potentially detrimental threats into new, profitable opportunities [25]. A SWOT analysis in vaname shrimp farming can be applied by identifying and analyzing the factors that influence these four aspects, then applying them in a SWOT matrix. Its application to vaname shrimp farming is as follows: How strengths, such as good water quality, support for cultivation technology, and farmer experience, can be utilized to gain advantages from existing opportunities, such as high market demand and developments in post-harvest technology.

How to overcome weaknesses, such as limited capital, low technological mastery, or limited market access, so as not to hinder the utilization of existing opportunities. How existing strengths, such as the ability to cultivate in high densities and the resistance of whiteleg shrimp to disease, can be used to face various threats, such as market price fluctuations or the risk of lingering diseases. How to overcome weaknesses, such as low business management skills and dependence on collectors, so that threats can be turned into new opportunities, such as diversification of processed shrimp products and expansion of marketing access through cooperatives or digital markets. By applying SWOT analysis, whiteleg shrimp farmers are expected to be able to design appropriate strategies to increase competitiveness in the market, maximize profits, and create new opportunities that support the sustainability of the cultivation business. The application of this strategy can also help farmers in overcoming various obstacles and threats, so that the whiteleg shrimp cultivation business can be more stable and develop in the long term [26].

The SWOT matrix is an analytical tool used to identify opportunities and threats from the external environment as well as the

strengths and weaknesses of the internal environment of an organization or company. Through this matrix, various strategies can be developed to achieve the desired goals. In general, strategies resulting from a SWOT analysis aim to encourage entrepreneurial efforts, namely by maximizing existing strengths, overcoming weaknesses, exploiting existing opportunities, and facing emerging threats. The results of this SWOT analysis produce four main groups of strategies, namely: SO (Strengths-Opportunities)

strategies, which utilize strengths to seize opportunities. ST (Strengths-Threats) strategies, which use strengths to face threats. WO (Weaknesses-Opportunities) strategies, which aim to improve weaknesses so that opportunities can be maximized. WT (Weaknesses-Threats) strategies, which focus on reducing weaknesses while avoiding or overcoming threats. The following is the basic form of the SWOT matrix that illustrates the relationship between the four strategies [27]

Tabel 1. Formulasi Strategi menggunakan Matriks SWOT

	Strengths	Weakness
Opportunities	S-O = Utilizing strengths to seize opportunities	W-O = Improve weaknesses to maximize opportunities
Threats	S-T = Utilization of strengths to face threats.	W-T = Reducing weaknesses and avoiding threats

Research Implementation from September to December 2025

4. RESULTS AND DISCUSSION

4.1 SWOT Analysis

SWOT analysis is a systematic identification of various factors to formulate a company's strategy. This analysis is based on logic that maximizes strengths and opportunities while simultaneously minimizing weaknesses and threats

Marketing vannamei shrimp requires strategic planning, including an analysis of the strengths and weaknesses of the shrimp farming business in Pematang Guntung Village. This analysis is referred to as a SWOT analysis, as follows:

1. Internal Factors

These internal factors influence the formation of Strengths and Weaknesses (S and W). These factors relate to conditions within the company, which in turn influence the company's decision-making. These internal factors encompass all functional management areas: marketing, finance, operations, human resources, research and development, management information systems, and corporate culture [28].

a. Evaluation of Internal Environmental Factors

This stage is a follow-up to the identification of internal environmental factors, involving the preparation of an IFAS (Internal Factor Analysis Summary) matrix to obtain a score

Table 2. IFAS Matrix (Internal Factor Analysis Summary)

Number	Strengths	Weight	Rating	Score
1.	Get help from the government	0,12	3,33	0,39
2.	The shrimp ordered was in accordance with the customer's request.	0,13	3,66	0,47
3.	Adequate facilities and infrastructure	0,13	3,66	0,47
4.	Have skilled, experienced and highly dedicated workforce to their work	0,13	3,83	0,49
5.	Easy to get seeds	0,12	3,50	0,42
Sub Total		0,65		2,24
Number	Weakness	Bobot	Rating	Skop
1.	Production has not met customer demand	0,07	2,00	0,14
2.	Product promotion does not use media	0,06	1,83	0,11
3.	Unable to fulfill shrimp orders in a timely manner	0,07	2,00	0,14

4.	The product cannot last long	0,07	2,00	0,14
5.	Lack of technology that can support vaname shrimp cultivation	0,06	1,83	0,11
Sub Total		0,35		0,64
Total		1,00		2,88

Source: Primary Data After Processing, 2025

Based on the results of the internal strategic factor analysis (IFAS) of strengths and weaknesses, a score of 2.88 was obtained, consisting of 2.24 strengths and 0.64 weaknesses. This condition indicates that the vannamei shrimp cultivation business in Pematang Guntung Village, Teluk Mengkudu District, Serdang Bedagai Regency is internally feasible for development.

2. External Factors

These external factors influence the formation of Opportunities and Threats (O and T). These factors relate to conditions occurring outside the company, which influence the company's decision-making.

b. Evaluation of External Environmental Factors

Evaluation of external environmental factors is conducted using the EFAS matrix, as shown in the following table:

Table 3. Matriks EFAS (Eksternal Factor Analysis Summary)

Number	Opportunities	Weight	Rating	Score
1.	Many people are interested in vaname shrimp on the market	0,12	3,16	0,38
2.	Has a relatively high selling price	0,12	3,00	0,36
3.	Big Business Opportunity	0,13	3,33	0,43
4.	Technological improvements that can increase production	0,15	3,83	0,12
5.	Government policies that support	0,13	3,33	0,43
Sub Total		0,65		1,72
Number	Threats	Weight	Rating	Score
1.	The high level of competition in selling vaname shrimp	0,08	2,00	0,16
2.	Not all the fry that are released can develop well.	0,07	1,83	0,13
3.	Consumer orders are not always fulfilled	0,07	1,83	0,13
4.	Lack of interest among the younger generation in cultivating vaname shrimp	0,06	1,66	0,10
5.	Pest and disease attacks	0,06	1,66	0,10
Sub Total		0,35		0,62
Total		1,00		2,34

Source: Primary Data After Processing, 2025

Based on the results of the External Strategic Factors Analysis (EFAS), which included opportunities and threats, the total score was 2.34, consisting of 1.72 for opportunities and 0.64 for threats. This situation illustrates that, externally, the whiteleg shrimp cultivation business in Pematang Guntung Village, Teluk Mengkudu District, is feasible.

4.2 SWOT Matrix

This matrix clearly explains how the external opportunities and threats facing a company can be aligned with its strengths and weaknesses. The SWOT analysis yields various alternative strategies, as shown in Table 4 below:

Table 4. Matrix Analysis SWOT

Internal Factors External Factors	Strength 1. Receive government assistance 2. Ordered shrimp meet consumer demand 3. Adequate facilities and infrastructure 4. Have a skilled, experienced, and dedicated workforce 5. Easy access to seeds	Weakness 1. Production does not meet customer demand 2. Product promotion does not utilize media 3. Shrimp orders cannot be fulfilled quickly 4. Product durability is limited 5. Lack of technology to support whiteleg shrimp cultivation
	Opportunities 1. High demand for vannamei shrimp in the market 2. Relatively high selling price 3. Huge business opportunities 4. Technological advancements that can increase production 5. Supportive government policies	Strategi SO 1) Marketing shrimp by calculating production costs and considering market prices 2) Collaborating with potential customers 3) Increasing the use of technology to increase production 4) Institutional empowerment
Threats 1. High competition in the sale of vannamei shrimp. 2. Not all released shrimp fry develop well. 3. Consumer orders are not always fulfilled. 4. Lack of interest among the younger generation in cultivating vannamei shrimp. 5. Pest and disease attack	Strategi ST 1) Cooperation among vannamei shrimp farmers is well-established, with farmers supporting each other. 2) Utilizing technology, such as the internet and other social media, to seek information about vannamei shrimp cultivation and markets	Strategi WT 1) Approaching the community, especially millennials, so they can participate in entrepreneurship, in this case, the vaname shrimp cultivation business. 2) Conducting direct sales to consumers, or in other words, shortening the trade chain from producer to consumer so that farmers gain greater profits.

Source: Primary Data After Processing, 2025

Based on the IFAS and EFAS matrix tables, several alternative strategies can be implemented that can support the development of vaname shrimp farming businesses in Pematang Guntung Village, Teluk Mengkudu District, Serdang Bedagai Regency. These strategies are:

1. S-O Strategy

This strategy is based on the mindset of whiteleg shrimp farmers, namely, utilizing all strengths to seize maximum opportunities. The SO strategy adopted by whiteleg shrimp farmers in Pematang Guntung Village utilizes

all the strengths of whiteleg shrimp farmers, namely:

Utilizing all strengths to seize and capitalize on maximum opportunities that can attract customers or consumers.

2. S-T Strategy

A strategy that utilizes the strengths of whiteleg shrimp farmers to overcome threats. The ST strategy adopted by whiteleg shrimp farmers in Pematang Guntung Village is: By improving product and service quality, utilizing the environment as a primary venue for business promotion, and maintaining

public trust in the products sold at affordable prices.

3. WO Strategy

This strategy is implemented based on exploiting existing opportunities while minimizing existing weaknesses. The WO strategy adopted by vaname shrimp farmers in Pematang Guntung Village is:

Implementing better management functions to improve performance for the advancement of the pond business and satisfying regular customers and consumers through large shrimp harvests.

4. W-T Strategy

This strategy is based on defensive activities and seeks to minimize existing weaknesses and avoid threats. The WT strategy adopted by vaname shrimp farmers in Pematang Guntung Village is as follows:

The steps that must be taken are providing seeds or fry, maintaining waning public trust, and maintaining affordable product prices without compromising shrimp quality.

Table 5. Calculation of Score Values Against Alternative Strategies

IFAS EFAS	STRENGTH	WEAKNESS
OPPORTUNITIES	Strategi S-O $2,24 + 1,72 = 3,96$	Strategi W-O $0,64 + 1,72 = 2,36$
THREATS	Strategi S-T $2,24 + 0,62 = 2,86$	Strategi W-T $0,64 + 0,62 = 1,26$

The SWOT matrix analysis calculation provides alternative strategies that are most appropriate to the internal and external environmental factors in developing the vaname shrimp cultivation business in Pematang Guntung Village, Teluk Mengkudu District, Serdang Bedagai Regency.

The SWOT matrix analysis calculation provides the most appropriate alternative strategy to the internal and external environmental factors in the development of the vaname shrimp cultivation business in Pematang Guntung Village, Teluk Mengkudu District, Serdang Bedagai Regency, namely the S-O strategy with an alternative strategy score of 3.96. The marketing strategy is as follows

- a. Leveraging all available resources to seize and capitalize on opportunities that can attract customers or consumers.
- b. Striving for human resource development and training. This means that developing the vanamei shrimp cultivation business requires the government's role, particularly in the form of outreach, which is expected to broaden farmers'

- knowledge of vannamei shrimp farming.
- c. Maintaining environmental cleanliness to prevent pollution. Farmers are expected to maintain the cleanliness of their ponds to reduce the risk of pests and diseases.
- d. Increasing the use of technology to increase production. Every addition to cultivation technology will increase vannamei shrimp farmers' income, particularly in the form of modern equipment. Some of the modern equipment in question, such as automatic feeders, allows vannamei shrimp to receive food more evenly, whereas in the field, feeding is done by hand, so only certain vannamei shrimp receive more food. Furthermore, the use of waterwheels provides oxygen to the shrimp, ensuring high stocking densities maintain the survival of vannamei shrimp in ponds. In the field, oxygen is naturally obtained, so a low stocking density strategy is

- employed to maintain the viability of vannamei shrimp.
- e. Institutional Empowerment - The institutions in question are those capable of supporting shrimp fisheries development, including extension institutions, farmer groups, and financial institutions. They also employ a participatory approach,

mutually beneficial cooperation, and partnerships. This includes improving product and service quality, utilizing the environment as a primary venue for business promotion, and maintaining public trust in products sold at affordable prices.

Table 6. Summary of IFAS and EFAS Scores

	IFAS		EFAS	
	Strength	Weakness	Opportunities	Threats
Marketing strategy	2,24	0,64	1,72	0,62
Quadrant	2,24 - 0,64 = 1,6		1,72 - 0,62 = 1,1	

Table 6. above explains the strategy of the Shrimp Farming Business in Pematang Guntung Village, Serdang Bedagai Regency. Which is the result of the addition of the strengths of the Shrimp Farming Business is 2.24 while the weaknesses are 0.64, so the

internal cell of the business factor is $2.24 - 0.64 = 1.60$ and the opportunities owned by the strategy are 1.72 and for threats is 0.62 then the external cell of the factor is $1.72 - 0.63 = 1.1$ so that it is in cell I in the SWOT analysis diagram cell.

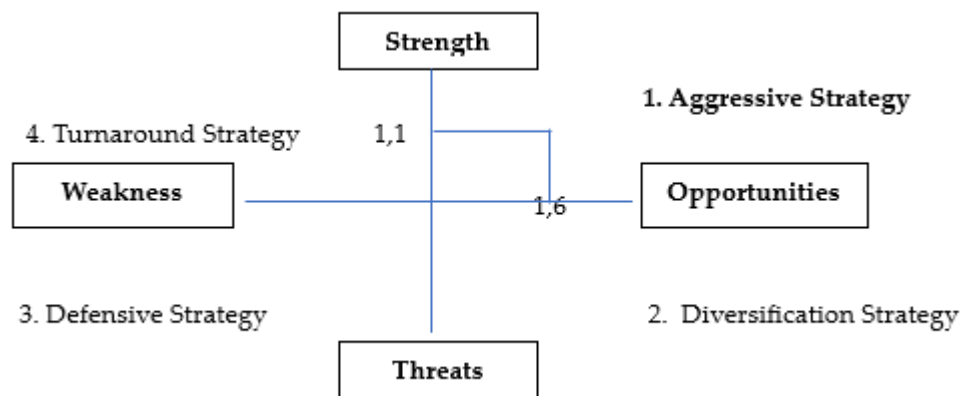


Figure 1. SWOT Analysis Diagram for Vaname Shrimp Farming Business

The SWOT Analysis Diagram above is obtained from the results of Table 6 of the IFAS and EFAS Score Recapitulation, where the table contains the results of the addition of the strengths owned by the Business which is 2.24 while the weaknesses are 0.64, then the internal factor cell of the business is $2.24 - 0.64 = 1.6$ and the opportunities owned by the strategy are 1.72 and for threats it is 0.62, then the external factor is $1.72 - 0.62 = 1.1$ so it is in cell I in the SWOT analysis diagram cell.

So, it can be concluded that the location of the Shrimp Farming Company is

between the Aggressive Strategy of strengths and opportunities, placed in strengths because the number of strengths is greater than weaknesses, and placed in opportunities because the number of opportunities is greater than threats. Aggressive Strategy describes the position of business strategy in the Shrimp Farming Business based on the SWOT analysis diagram which explains the external factors and internal factors are in cell (quadrant) I showing the SO strategy in the SWOT matrix, namely supporting an aggressive strategy. This strategy explains

that the strategy is very profitable for the business because it has opportunities and strengths in business progress, especially the Vanamei Shrimp Farming Business in Pematang Guntung Village, Teluk Mengkudu District, Serdang Bedagai Regency.

5. CONCLUSION

Internal factors used to see strengths are: 1). Getting assistance from the government, 2). The ordered shrimp are in accordance with consumer demand, 3). Adequate facilities and infrastructure, 4). Having skilled, experienced and highly dedicated workers, 5). Easy to get seeds and those used to see weaknesses are: 1). Products have not met customer demand, 2). Product promotion does not use media, 3). Unable to fulfill shrimp orders quickly, 4). Products are not durable, 5). Lack of technology that can support vaname shrimp cultivation. External factors used to see opportunities: 1). Many people are interested in vaname shrimp in the market, 2). Having a relatively high selling price, 3). Big business opportunities, 4). Technological improvements that can increase production, 5). Supportive government policies and those used to see threats: 1). Lots of competition in selling vanamei shrimp, 2). Not all of the released

fry can develop well, 3). Consumer orders are not always fulfilled, 4). Lack of interest among the younger generation in cultivating vaname shrimp, 5). Pest and disease attacks.

Based on the SWOT analysis diagram that explains the external and internal factors in cell (quadrant) I shows the SO (Strength-Opportunities) strategy, namely marketing shrimp by calculating production costs and looking at market prices. Collaborating with potential customers. Increasing the use of technology in an effort to increase production and in the SWOT matrix, namely supporting an aggressive strategy. This strategy explains that the strategy is very profitable for the business because it has opportunities and strengths in business progress, especially the vaname shrimp farming business in Pematang Guntung Village, Teluk Mengkudu District, Serdang Bedagai Regency.

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