

Research Article

The Strategy of Agroindustry Development of Teng-Teng Apel (A Case Study on Hilwa Nusantara Shop in Batu City)

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ABSTRACT

This study is conducted by purpose of identifying company environment and analyzing the strategy for agroindustry development of Teng-Teng Apel (cake made from apple fruit) in Hilwa Nusantara Shop in Batu City. The methods of data analysis used in this study are internal and external company analysis, Internal Factor Evaluation (IFE) Matrix, External Factor Evaluation (EFE), SWOT analysis, and Quantitative Strategic Planning Matrix (QSPM) analysis. The results of the study have showed that SWOT analysis indicates IFAS score 2.84 and EFAS value 2.94. Moreover, agroindustry position of Teng-Teng Apel of Hilwa Nusantara Shop is at Quadrant One (I). Based on company position, there are three alternative strategies, 1. To increase production capacity and quality using technology, 2. To extend market in developing sales volume, and 3. To maintain relationship and trust with raw material suppliers. First becomes first priority for Hilwa Nusantara with TAS value 5.49.

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INTRODUCTION

Agriculture is a significant sector that plays an important and strategic role in national economy which concerns the livelihoods of many people (Syabena et al., 2023). The agricultural sector can contribute significantly to national development, along with development efforts and growth in other sectors. One of the prerequisites for developing other sectors such as industry and services is a superior and reliable agricultural sector (Raharjo et al., 2023). One of numerous agricultural products that contribute to the national economy is fruit. Apples are an agricultural product in the form of annual fruit that originally came from the West Asian region which has a temperate climate. Apples have been cultivated in Indonesia since 1934 and have many varieties that can be found in many regions, especially in East Java. According to BPS (2022), East Java is the region with the largest apple production in Indonesia. One of the many potential areas in East Java province which is a center for apple production is Batu City, precisely in the Bumijati District. Apples are one of the leading commodities and are widely developed in this region, so that apples are used as a tourism icon for Batu City.

The availability and existence of apples, which are very easy to obtain in this region, can be a strength factor to increase the selling value of apples. Considering that apples are climacteric fruit, they will continue to experience the ripening process even after being picked from the tree (Arti & Manurung, 2018) so that they will rot faster and

further processing is needed to increase the economic value of apples. Sometimes, in an effort to increase income, businessmen prefer to process agricultural products first rather than sell them directly (Pahlupi et al., 2023). One of the efforts to increase the economic value of a commodity is to support agricultural industrialization through agroindustry. Agroindustry has a crucial role in the economy, functioning as the main driver of the agricultural industry. The existence of agroindustry may create job opportunities, income distribution to be more balanced, and community welfare (Faliha et al., 2022). According to Maryam et al., (2020), agroindustry is intended as an industry that produces input for the production process that will produce a new product. This product is ready for consumption or a semi-finished product that must be processed first.

Agroindustry is an industry that in its process uses agricultural products as the main raw materials in its manufacture (Soekartawi, 2005). In the perspective of agroindustry side, this is more emphasis on food processing. Agroindustry is a bridge connecting the agricultural sector in the upstream activity process and the downstream industrial sector (Jhonson et al., 2024). Agroindustry includes activities that change the original form of agricultural products into a new product form. Agroindustry plays a very important role where it is the center of the agricultural chain and increase the value of agricultural products on the market. The process will result in added value and utility so that the economic value of an agricultural product becomes higher (Dore et al., 2021). Apple agroindustry is a processing industry formed by utilizing apples as the main raw material in producing various processed products such as apple pie, apple dodol, apple chips, Teng-Teng Apel, etc. One of the apples agroindustries that is developing in the Batu City area is Hilwa Nusantara Shop.

Hilwa Nusantara is a business unit located in Batu City and focuses on apple processing which has been managed since 2015. Numerous efforts in business development have been made to increase the company's value. One of the business developments carried out by Hilwa Nusantara is to produce various kinds of processed products to increase the economic value of apples. There are some featured products of Hilwa Nusantara's products, such as Teng-Teng Apel, apple dodol, apple chips, apple cookies, apple pie, and other processed apple products. The presence of Hilwa Nusantara is expected to support the economy of the surrounding areas.

Being in a tourism area provides many opportunities for Hilwa Nusantara to expand its business. According to Dinas Pariwisata Kota Batu (2022), tourist visits to Batu City have increased significantly compared to previous years. The increase in tourist visits to Batu City has an impact on the volume of souvenir sales. This is proven by the increasing sales of Hilwa Nusantara products during the holiday season. Based on this opportunity, some agroindustry in this region have begun to grow to utilize apples as raw materials for processed products to meet market demand. This situation makes Teng-Teng Apel product of Hilwa Nusantara have great potential in sales considering that its marketing area located in the tourist city of Batu. On the other hand, the growing number of agroindustry has created the competition between one and another. This condition requires Hilwa Nusantara to maintain its business considering the growing other agroindustry and opening businesses with products made from the same raw materials. In maintaining a business amidst competition, an appropriate strategy is needed to carry out developments that are in accordance with the company's circumstances.

Strategy is a sustainable response to threats and opportunities as well as strengths and weaknesses that can influence the company (Rohmawati, 2020). Strategy encompasses various combinations of competitive moves and business approaches used by managers to meet consumer needs and compete effectively in achieving organizational goals (Arthur et al., 2022). Considering the large number of competitors, it is necessary to understand the company's environment, both from internal and external factors that will support or hinder Hilwa Nusantara in its operations. As a result, this condition is profitable as the basis getting information which is used as an evaluation for business development strategy.

There are several previous studies used as guidelines which conducted by Tamaradewi et al., (2019) regarding development strategy of coffee business (*Coffea*, sp) among Forest Farming Group (KTH) Green Cibulao and Slamet et al., (2022) regarding development strategy for the dragon fruit skin processing industry in Banyuwangi Regency. This study contributes to the selection of analysis methods and understanding of the use of data methods, namely the IFE matrix, EFE matrix, SWOT matrix and QSPM. The novelty of previous studies that has been conducted with the current research lies in the object and location of the study, Teng-Teng Apel product located at Hilwa Nusantara Shop in Batu City using several data analyses including the IFE matrix, EFE matrix, Grand Strategy Matrix, SWOT Matrix, and QSPM. Based on problem statements above, the purpose of this study is to identify the company environment (internal and external); to formulate alternative strategies; and to determine the main strategy for Hilwa Nusantara in an effort to develop the business.

METHOD

This study was conducted in Hilwa Nusantara Agroindustry located at Cop St. Kasdi, Bumiaji District, Batu City, East Java. The determination of research object is using purposive sampling considering Hilwa Nusantara is one of agroindustry that actively processing apple fruit in Batu City. The study was held in March until June 2024.

This study applied purposive sampling to determine respondents criteria (Sugiyono, 2019). The criteria for respondents selected and used as informants are parties who understand Hilwa Nusantara internally and externally. The selection of respondents was carried out with several considerations, namely that the respondents selected were parties who understood and knew the business conditions in more depth and had the authority in terms of the data needed for the research. The respondents who were used as key informants for the study were eight people, including the Owner of Hilwa Nusantara, the head of the administration division, three employees in the production division, the head of the marketing division, raw material suppliers, and the PLUT of Batu City.

The data used in this study consists of primary data and secondary data. Primary data is obtained from interview with key informants and secondary data is obtained from literature review relevant to the research topic. The method used to analyze data in this study is quantitative descriptive analysis. Descriptive analysis is used to describe the environmental factors of the Hilwa Nusantara agroindustry, while quantitative analysis is used to calculate the IFE & EFE matrix for evaluating strengths, weaknesses, opportunities and threats (SWOT analysis). The analysis tool used in compiling the company's strategic factors is the SWOT matrix (Rangkuti, 2018). QSPM (Quantitative Strategies Planning Matrix) is an analysis tool used to determine the main strategy for Hilwa Nusantara.

1. Identifying internal and external factors of Hilwa Nusantara

Information regarding the company environment, both internal and external, is obtained from in-depth interviews with key informants. Key informants in this study are the Owner of Hilwa Nusantara, the head of production division, the head of the administration division, raw material suppliers, and the PLUT KUMKM of Batu City.

2. Determination of weight and rating scores for each factor

In determining the magnitude of the weight and rating values in the IFE & EFE matrix, participation is required from informants who are considered to understand the company's condition in the activity process. Key informants in this study are the Owner of Hilwa Nusantara, the head of production division and its member, administration division, marketing division, raw material suppliers, and the PLUT KUMKM of Batu City.

3. Formulating strategic alternatives and priorities

Alternative strategies are derived from the company's position. Determination of strategic priorities is obtained from the total attractiveness scores in the QSPM matrix. The party that determines the strategic priorities is the owner of Hilwa Nusantara with the review that the business owner knows the condition of the company. Furthermore, the results of the strategy that has been determined in the QSPM matrix can be applied to the company environment.

RESULTS AND DISCUSSION

Identification of Internal and External Environment Factor for Teng-Teng Apel of Hilwa Nusantara

The analysis of company environment aimed to identify variables being factors that can influence Hilwa Nusantara internally and externally. Internal factors come from within the agroindustry and the challenges can be controlled by the company. Meanwhile, external factors come from outside the company and any challenges appeared are beyond their control. By identifying the internal environment, the company can find the strengths and weaknesses of Teng-Teng Apel product. On the other hand, identifying the external environment will create the opportunities and face the threats. (Harisudin, 2019). The environmental factors of the company from Teng-Teng Apel can be explained in Table 1.

Table 1. Environmental Factors of Hilwa Nusantara's Teng-Teng Apel Product

No.	Internal Factors	Strength	Weaknesses
1	Human Resources	- Having permanent employees	- There is no competitive recruitment for employees
2	Marketing	- Quality product	- Lack of product promotion - Limited marketing area
3	Production	- Availability of raw materials - Having regular suppliers - Becoming a pioneer in the agroindustry of Teng-Teng Apel	- Unattractive product packaging
4	Management	- Well planning of financial management - Production profit	-
5	Setting	- Accessible location	-
6	Organization	-	- Imbalanced distribution of employees' tasks

No	External Factors	Opportunities	Threats
1	Economy	- Funding	- fluctuated cost of raw materials
2	Politics	- Government supports	-
3	Technology	- Technology development	-
4	Socio-culture	- High demand market during particular seasons. - Having a good relationship with suppliers - Employees absorption	-
5	Competition	-	- substitute products availability

Source: Processed Primary Data, 2024

1. Identification of Strength Factor

- a. Availability of raw materials. Hilwa Nusantara receives apples from the suppliers in the area of Batu City. To meet the need of fresh apples, Hilwa Nusantara collaborates with another supplier as business partner. By establishing a good relationship, the availability of raw materials for Teng-Teng Apel is always guaranteed.
- b. Quality product. Teng-Teng Apel produced by Hilwa Nusantara does not contain preservatives, artificial sweeteners, and colorings. The production process of Teng-Teng Apel must be carried out properly and every employee must comply with the S.O.P. that has been determined in order to create quality product with well-maintained and to be accepted by consumers.
- c. Strategic/ accessible production place. Hilwa Nusantara is located in the apple agro-tourism area and the center for apple production. The access eases the store to market Teng-Teng Apel as typical souvenirs from Batu City.
- d. Having permanent employees. The presence of permanent employees can fulfill the task of making Teng-Teng Apel. Moreover, their presence may overcome human resources aspect in the production process.
- e. Production profits. The profits increase in every period.
- f. Financial management. Financial management of the company has been carried out in detail by Hilwa Nusantara in order to identify its income and expenditure. By establishing good financial management, the bussiness of Teng-Teng Apel will be running smoothly.
- g. Becoming a pioneer in the agroindustry of Teng-Teng Apel. Hilwa Nusantara is the only agroindustry business produced Teng-Teng Apel in the area of Malang. As a pioneer, of course, this is a strength for Hilwa Nusantara that Teng-Teng Apel will be more easily recognized by the public.

2. Identification of Weakness Factors

- a. Lack of product promotion. The sales system is only carried out through souvenir shops, Hilwa Nusantara does not carry out any online promotional and sales activities.
- b. Limited marketing area. Teng-Teng Apel is only marketed at souvenir outlets, such as Brawijaya, Kenedes, Royal Oleh-Oleh shop outlets, etc. As a result, the marketing of Teng-Teng Apel is still considered not optimal due to limited marketing area.
- c. Unattractive product packaging. Teng-Teng Apel only uses plastic packaging and distributed by using cardboard box.
- d. There is no competitive recruitment for employees. In recruiting employees, there is no specific consideration of skills or education. The majority of employees working in Hilwa Nusantara is coming from housewives surrounding area.
- e. Task Distribution of Employees. In the implementation of production activities, task distribution of employees is still not in accordance with the organizational structure. The employees have double job description in the production phase so they cannot focus on one task.

3. Identification of Opportunity Factors

- a. Government supports. The government supports brand registration, PIRT, halal certification, as well as SME development through workshop trainings.
- b. High demand market during particular seasons. The market of Teng-Teng Apel has increased significantly in particular seasons, such as holidays. Many tourist visits result high demand of market in Batu City.
- c. Technology development. Sustainable development of technology highly contributes to Hilwa Nusantara in branding aspect. The proper use of technology can make it easier for Hilwa Nusantara to run the operations.

- d. Having a good relationship with suppliers. Hilwa Nusantara has a very good relationship with the suppliers of apple raw material. This relationship has been well established and loyally collaborated for long term periods.
 - e. Funding. Hilwa Nusantara received capital loans from banks. It is expected the agroindustry business expanded and profitable.
 - f. Employees absorption. The majority of employees at Hilwa Nusantara are coming from local people surrounding area by purpose to empower local community.
4. Identification of Threat Factor
- a. fluctuated cost of raw materials. fluctuated cost of in raw materials is affected by the supply of fresh apples on the market. Hence, it will affect production cost and profit.
 - b. substitute products availability. The large number of substitute products on the market will give consumers many options in purchasing the souvenirs other than Teng-Teng Apel. The existence of other products will influence consumer preferences.

The Development Strategy of Teng-Teng Apel of Hilwa Nusantara Shop

IFE (Internal Factor Analysis Strategy) Matrix

IFE is a matrix used to analyze internal factors of a company's environment by classifying them into two categories, namely strengths and weaknesses for the development of Teng-Teng Apel of Hilwa Nusantara business, which is then used for weighting and rating calculations. The amount of weight given by the informant will depend greatly on the level of importance or influence of the key factors on the success of the Hilwa Nusantara.

Table 2. Internal Factor Analysis Strategy (IFAS) Matrix of Hilwa Nusantara

Internal Factors	Weight	Rating	Total
Strengths:			
1. Availability of raw materials	0.09	3.5	0.315
2. Having regular suppliers	0.08	3.125	0.25
3. Quality product	0.08	3.25	0.26
4. Accessible Production Place.	0.07	2.75	0.2
5. Having permanent employees	0.08	3.125	0.25
6. Production profit	0.07	2.875	0.2
7. Financial Management	0.07	3	0.21
8. Becoming a pioneer in the agroindustry of <i>Teng-Teng Apel</i>	0.06	2.5	0.15
Number of strength variables	0.63		1.83
Weaknesses:			
1. Lack of product promotion	0.08	3.125	0.25
2. Limited marketing area	0.07	2.75	0.19
3. Unattractive product packaging	0.07	2.75	0.19
4. There is no competitive recruitment for employees	0.08	3	0.24
5. Task Distribution of Employees	0.06	2.375	0.14
Number of weaknesses variables	0.37		1.01
Total Score	1		2.84
Score Differences			0.82

Source: Processed Primary Data, 2024

Table 2 has showed that total score of strengths and weaknesses is 2.84. The total score has indicated that the Teng-Teng Apel of Hilwa Nusantara is considered moderate category. The strength of strategic internal factor of Hilwa Nusantara is the availability of raw materials with a score of 0.315. This shows that the availability of raw materials in the form of fresh apples is the most important factor and needs to be considered in developing a business. The availability of raw materials will impact the running of the business. If there is a shortage or delay in the supply of fresh apple raw materials, this will hamper the production process of Teng-Teng Apel. The internal strategic factor that is the biggest weakness of Hilwa Nusantara is the suboptimal product promotion and is indicated by a score of 0.25. The promotion that has been carried out by Hilwa Nusantara is limited to making sales by placing Teng-Teng Apel at souvenir shops and there are still no activities carried out via online branding. As a result, promotional activities are considered not optimal. According to Anggina et al., (2020), promotion is a determinant factor for success in marketing activity. Promotion becomes a determinant factor for consumers to decide purchasing a product. In addition, the strengths of the company tend to be higher compared to its weaknesses. This condition indicates that Hilwa Nusantara has a good enough ability to anticipate weaknesses in Teng-Teng Apel business development.

EFE (External Factor Analysis Strategy) Matrix

EFE Matrix is an analysis tool for external factors in the company's environment by classifying them into categories of opportunities and threats in the development process of Teng-Teng Apel in Hilwa Nusantara Agroindustry. Table 3 provides weight and rating scores of external companies.

Table 3. External Factor Analysis Strategy (EFAS) Matrix Teng-Teng Apel of Hilwa Nusantara

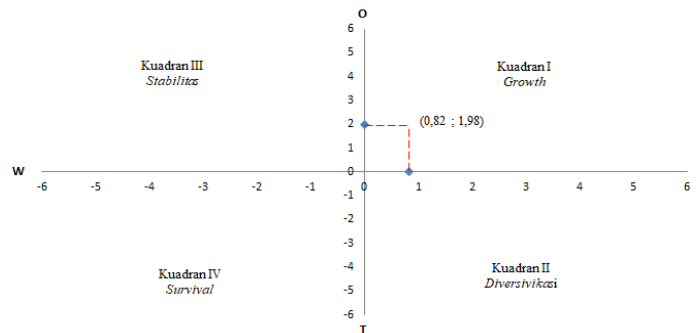
External Factors	Weight	Rating	Total
Opportunities:			
1. Government supports	0.14	3.125	0.43
2. High demand market during particular seasons.	0.15	3.5	0.52
3. Technology development	0.11	2.625	0.29
4. Having a good relationship with suppliers	0.14	3.375	0.47
5. Funding	0.12	2.75	0.33
6. Employees absorption	0.13	3.125	0.4
Number of opportunity variables	0.79		2.46
Threats:			
1. fluctuated cost of raw materials	0.12	2.875	0.34
2. substitute products availability	0.08	1.75	0.14
Number of threat variables	0.20		0.48
Total Scores	1		2.94
Score Differences			1.98

Source: Processed Primary Data, 2024

Table 3 has showed that the total scores of opportunities and threats are 2.94 - means that Teng-teng Apel of Hilwa Nusantara agroindustry is categorized moderate. The opportunity as a strategic external factor for Hilwa Nusantara is high demand market during particular seasons. The increasing demand of products will certainly affect the amount of income and profits obtained. The high demand of the product will affect the grow of the business. Meanwhile, the main threat is fluctuation or uncertainty in raw material costs. Fluctuated cost of raw materials surely impacts the production cost or expenditure. High production costs will affect the income and profits received by the company. According to Nisa (2023) regarding "The Development Strategy for Tempe Home Industry in Sungan Tabuk District, Banjar Regency (SWOT Analysis)", fluctuations in raw material costs may significantly impact on various aspects. Fluctuated costs make budget planning more difficult and unsureness. The company needs to adjust budgets periodically to accommodate changes in raw material costs. Profit margin of the company is fluctuated based on changes in raw material costs. This increase could lead to a decrease in profits. By understanding and managing the impact of raw material price fluctuations, the company can reduce risk and maintain their operational and financial stability.

Grand Strategy Matrix

Business location is combined with various factors of strengths, weaknesses, opportunities and threats of Hilwa Nusantara using the total score of the strengths and weaknesses factors in the IFAS matrix and the total score of the opportunities and threats factors in the EFAS matrix. This analysis aimed at determining the coordinate points so that the type of appropriate strategy for business conditions in the SWOT quadrant can be identified. The calculation of the internal factors for Hilwa Nusantara is obtained from the results of subtracting the strength and weakness scores, $1.83 - 1.01 = 0.82$, which is used as the X axis and categorized positive position. Meanwhile, the calculation of external factors is obtained from the results of subtracting opportunities and threats by $2.46 - 0.48 = 1.98$, which is used as the Y axis and categorized positive position. The calculation results showed that Hilwa Nusantara shop is in quadrant I. This quadrant position showed that Hilwa Nusantara is strong and has the opportunity to develop. The recommendation of strategy is an aggressive strategy, in which Hilwa Nusantara agroindustry is suggested to make efforts in business development on products and markets. The strategies are adding product quantities, variations, networkings by using technology aids. These strategies may extend economy growth to reach maximum success.



Picture 1. Grand Strategy Matrix for Teng-Teng Apel of Hilwa Nusantara

The location of Hilwa Nusantara is based on Fajriyah et al., (2023) about “The Strategy of Banana Chips Business of Prigi Jaya in Batuan Village, Batuan District, Sumenep Regency” located in quadrant I. The study explained that the location has great opportunities to expand. Aside from quadrant position, aggressive strategies conducted in the study are relevant to Hilwa Nusantara strategies. By focusing on strengths and opportunities, the company can formulate strategies by carrying out expansion to achieve optimal progress. The strategy of increasing the production quantity and quality is carried out by both companies in order to increase competitiveness, meet the market demand, and encourage sustainable business growth.

SWOT (Strength, Weakness, Opportunity, Threat) Matrix

According to calculation of Grand Strategy Matrix, the location of Hilwa Nusantara lies in quadrant I. This situation describes the strategies being planned based on strength and opportunity factors. The analysis conducted previously becomes a reference in determining alternative strategies in the business development process, the S-O strategy (strengths-opportunities). Alternative strategy of S-O in the agroindustry development of Hilwa Nusantara can be seen in Table 4.

Table 4. SWOT Matrix of Business Development for Hilwa Nusantara

External Factors	Internal Factors	STRENGTH
		<ol style="list-style-type: none"> 1. Availability of raw materials 2. Having regular suppliers 3. Quality product 4. Accessible location 5. Having permanent employees 6. Production profit 7. Financial Management 8. Becoming a pioneer in the agroindustry of <i>Teng-Teng Apel</i>
		S-O Strategy
	OPPORTUNITIES <ol style="list-style-type: none"> 1. Government supports 2. High demand market during particular seasons. 3. Technology development 4. Having a good relationship with suppliers 5. Funding 6. Employees absorption 	<ol style="list-style-type: none"> 1. To increase production capacity and quality using technology (S1, S3, S4, O2, O3, O5) 2. To extend market in developing sales volume (S4, O1, O3) 3. To maintain relationship and trust with raw material suppliers (S1, S2, O4)

Source: Processed Primary Data, 2024

The formulation of alternative strategies for developing the Hilwa Nusantara is based on the shop location which has previously been analyzed using a grand strategy matrix, lied on quadrant I. This is in line with Pradani’s research (Pradani et al., 2021). Position of CV (Commanditaire Vennootschap) Pantiboga Natural Food lies on quadrant I and its strategy focus on product and market development. Hilwa Nusantara’s market strategies are product development by promoting product quantity and quality using technology aids, as well as maintaining relationships and trusts with raw material suppliers. Meanwhile, the development strategy that concentrates on the market is by expanding the market to increase sales volume. Several ways of market development conducted by each business owner are the expansion of market networks and distribution based on business segments (Lubis et al., 2019).

The first strategy is obtained from the strengths and opportunities which is the availability of raw materials and increasing market demand in certain seasons (S1, S3, S4, O2, O3, O5). The sales of Teng-Teng Apel product encounter a significant increase during certain seasons such as national holidays, holiday seasons, etc. The

increase of Teng-Teng Apel sales has showed that numerous consumers purchase the product which indicating high demand of market. When sales percentage increases, Hilwa Nusantara faces the limitation in the existence product capacity. New technology may assist production efficiency allowing the company or home production to produce Teng-Teng Apel in short period of time. The use of technology eases Hilwa Nusantara to run its business.

The second strategy is obtained from accessible place and technology development (S4, O1, O3). The strategy can be implemented by Hilwa Nusantara by adding market place. Strategic or accessible location is around tourism place, souvenir shop outlets, and supermarket. This situation may profit for Hilwa Nusantara to promote its products. Furthermore, conventional and technology-based promotion are needed to increase sales percentage. E-commerce and social media branding will generate wider market place. The supports of local government become comparative advantages for Hilwa Nusantara.

The third strategy is obtained from the availability of raw materials and having regular suppliers, as well as well-maintained relationships with them (S1, S2, O4). To optimize or have good relationships with other partners may positively affect business relationships. Building and maintaining good relationships with suppliers is an important business strategy to ensure the sustainability of operations and long-term success of the company. Well-maintained relationships ensure a stable and uninterrupted supply of raw materials. This is important aspect for business stability. The suppliers are trusted to deliver lower or competitive price (special discounts) in order to minimize production costs. They are expected to provide high quality materials based on initial agreements. Strong relationships with suppliers as business partners may increase trust and minimize risks in long term relationships.

The Priority of Development Strategy for Teng-Teng Apel of Hilwa Nusantara

The priority of applied strategies for Hilwa Nusantara is using QSPM (Quantitative Strategic Planning Matrix) analysis. QSPM is an analysis method to assess alternative and factual strategies in accordance with critical factors from external and internal environment by matching relevant information and data (Parmitasari & Syariati, 2020). This matrix indicates attractiveness level of each alternative strategy. The strategy with the highest attractiveness value will be the company's priority in developing its business. There are three strategies generated by SWOT matrix followed by QSPM as advanced analysis, namely: (1) to increase production quality and quantity by using technology aids; (2) to expand the market by increasing sales volume; and (3) to maintain strong relationships and trust with suppliers as business partners. The calculations of those three development strategies for Teng-Teng Apel of Hilwa Nusantara are described in Table 5.

Table 5. QSPM Matrix of Hilwa Nusantara

Key factors	Weight	Alternative Strategy					
		I		II		III	
		AS	TAS	AS	TAS	AS	TAS
Strengths							
1. Availability of raw materials	0.09	4	0.36	2	0.18	4	0.36
2. Having regular suppliers	0.08	4	0.32	2	0.16	3	0.24
3. Quality product	0.08	3	0.24	4	0.32	3	0.24
4. Accessible Production Place.	0.07	3	0.21	3	0.21	2	0.14
5. Having permanent employees	0.08	3	0.24	1	0.08	1	0.08
6. Production profit	0.07	3	0.21	3	0.21	2	0.14
7. Financial Management	0.07	2	0.14	2	0.14	2	0.14
8. Becoming a pioneer in the agroindustry of Teng-Teng Apel	0.06	1	0.06	4	0.24	1	0.06
Weaknesses							
1. Lack of product promotion	0.08	1	0.08	3	0.24	1	0.08
2. Limited marketing area	0.07	1	0.07	3	0.21	1	0.07
3. Unattractive product packaging	0.07	3	0.21	2	0.14	1	0.07
4. There is no competitive recruitment for employees	0.08	1	0.08	1	0.08	1	0.08
5. Task Distribution of Employees	0.06	1	0.06	1	0.06	1	0.06
Opportunities							
1. Government supports	0.14	2	0.28	4	0.56	1	0.14
2. High demand market during particular seasons.	0.15	4	0.6	3	0.45	4	0.6
3. Technology development	0.11	4	0.44	3	0.33	2	0.22
4. Having a good relationship with		4	0.56	1	0.14	4	0.56

Key factors	Weight	Alternative Strategy					
		I		II		III	
		AS	TAS	AS	TAS	AS	TAS
suppliers	0.14						
5. Funding	0.12	4	0.48	3	0.36	3	0.36
6. Employees absorption	0.13	1	0.13	2	0.26	2	0.26
Threats							
1. fluctuated cost of raw materials	0.12	4	0.48	1	0.12	3	0.36
2. substitute products availability	0.08	3	0.24	4	0.32	2	0.16
Total TAS		5.49		4.81		4.42	

Source: Processed Primary Data, 2024

According to Table 5, the calculations of QSPM analysis indicated that the score of attractiveness for first strategy is 5.49, second strategy is 4.81, and third strategy is 4.42. First strategy has the highest score with 5.49. Moreover, this strategy aimed at increasing production capacity and quality using technology aids. This strategy obtained the highest total attractiveness score indicating that it is more attractive compared to other strategies and becomes is priority to implement in business development. The company should increase product quality and capacity to meet market needs. The development of technology, such as sophisticated production machines, is highly important to assist the needs of market by maintaining quality, efficiency, and responsiveness towards consumers' needs.

The technology also allows the company to rapidly cover production capacity to be greater in order to meet market needs without recruiting additional employees significantly (Ningsih, 2024). By utilizing technology, the company allows automized-production process in order to reduce time and cost. Automatic machines with automatic control system will increase the operational efficiency of the company. Advanced technology such as computer-based quality control and error detection systems can help to ensure Teng-Teng Apel produced by Hilwa Nusantara have stable quality based on predetermined standards. Thereby, it will automatically. reduce the risk of errors that humans may make in the production process. By adopting advanced technology in production system, the company may ensure product quality to be competitive and efficient in the market place. Initiating small things and moving gradually will assist the company to adapt to the changes without experiencing high risks.

CONCLUSION

Based on the analysis conducted by Hilwa Nusantara in Batu City, strategic internal factor of strength consists of the availability of raw materials, regular suppliers, quality product, financial management, and founder of Teng-Teng Apel. Internal factors of weakness consist of lack of promotion, limited marketing area, unattractive product packaging, less competitive recruitment for employees, and imbalance task distribution. Strategic factor of opportunity consists of government supports, high demand market during particular seasons, technology development, having strong connection with suppliers, funding, and employees' absorption. Meanwhile, strategic factor of threat consists of fluctuated cost of raw materials and substitute products availability.

Hilwa Nusantara lies on quadrant I and is recommended to apply aggressive strategy. There are three alternative strategies that can be used, to name: (1) to increase production quality and quantity by using technology aids; (2) to expand the market by increasing sales volume; and (3) to maintain strong relationships and trust with suppliers as business partners. The prioritized strategy is to increase production quality and quantity by using technology aids by means of fulfilling market needs with the score 5.49.

There is an alternative for Hilwa Nusantara, to name using advanced technology such as automatic machines in the production system of Teng-Teng Apel to be more efficient and quality. Hilwa Nusantara is expected to be committed in planning market development by implementing advanced technology for promotion and branding purposes through social media and e-commerce services to expand wider markets.

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