

Soybean Agroindustry Development Strategy in Galang District, Deli Serdang Regency

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Abstract. Based on the results of the study, it shows that the development of agro-industry in the research area has strength and also has opportunities in the development of soybean agro-industry. For this reason, the strategy that must be implemented in such conditions is the SO (Strengths and Opportunity) strategy. From the results of the internal-external matrix obtained, there are several internal factors (Strengths and Weaknesses) and external factors (Opportunity and Threats) that affect the development of the soybean agroindustry, namely: Internal factors of strength (stengths) consist of : Use of advanced technology, Experience in agro-industrial processing, Increase in the number of production, Products produced have taste advantages, Wide product marketing, Products are recognized by the public, There is a variety of products and prices, Using trademarks, The quality of soybeans is very good, Abundant availability of raw materials. Internal factors of weaknesses consist of: Limited capital, Lack of professional personnel, Strategic processing location, Lack of industrial partnerships, No assistance from the government, Non-durable products, Less strategic processing locations, Processed products are perishable, Business is still on a small scale, Labor is still relatives/family. External factors of opportunity consist of: High prices of processed products, Government support to increase the availability of soybeans, Government attention to agro-industry businesses, Availability of large soybean land, Marketing is not too difficult, Knowing information from competitor products, Products are widely consumed, There is a network of cooperation between institutions, Being able to innovate in processing, Gaining the trust of consumers. External factors of threats (treats) consist of: Lack of relationship with customers, High production produced in other regions, Poor quality of processed products in other regions, Lack of participation of agro-industry processors in training, Government demands on the quality of processed products, Fluctuations in the price of imported soybeans, Local soybeans mixed with imported soybeans, Failure to process, Price competition in the market, The increasing number of people selling similar agro-industrial products.

Keywords: Soybean Agroindustry Development, Strategy, Strengths and Opportunity, SWOT

1. INTRODUCTION

Soybeans (*Glycine max* L) are food crops in the form of shrubs that grow upright. It originated in China and was developed to various countries such as Latin America and Asia. Soybeans can be cultivated in tropical and subtropical climates with simple cultivation techniques. The nutritional content of soybeans is quite high, especially the protein reaches 34 percent, so it is in great demand as a cheap source of vegetable protein compared to animal protein [1].

Soybeans are a strategic commodity in the national food security system because they have become an important part of the food menu of most people in Indonesia. Therefore, soybeans need to be available in sufficient quantities for the population, the number of which continues to increase from year to year. In fact, domestic soybean production is only able to meet 30 to 40 percent of needs, while the shortage must be imported [2].

Soybean products as processed food ingredients have the potential and play a role in growing and developing small and medium industries even as export commodities. Efforts to reduce the rate of imports can be taken through strategies to increase productivity, expand planting areas, increase production efficiency, strengthen farmer institutions, improve product quality, increase added value, improve market access, improve the capital system, develop infrastructure, as well as regulate business systems and business incentives. Considering that Indonesia has a large population, and the soybean raw food industry is growing rapidly, soybean commodities need to be prioritized to be developed domestically to reduce the rate of imports [3].

The demand for soybeans shows a considerable increase in line with the increase in population and people's income. However, on the other hand, the ability to produce soybeans domestically has not been able to meet the increase in demand [4].

Increasing soybean production in the country is an absolute effort that must be made to reduce dependence on huge imports. The aspect of soybean self-sufficiency is more focused on reducing import volume every year. In the long term, self-sufficiency can be achieved if the production increase program can be implemented with continuous commitment and hard work.

Agricultural resources in Indonesia are one of the advantages that have been consciously made one of the pillars of development in the form of agroindustry, both in the new order, reform and currently. Agriculture will be able to be a savior when seen as a system related to industry and services. If agriculture just stops As a cultivation activity (on farm agribusiness), the added value is small. The added value of agriculture can be increased through downstream activities (off farm agribusiness), in the form of agroindustry and agriculture-based services [5].

2. METHODOLOGY

2.1 Research Area

This research was conducted in Galang District, Deli Serdang Regency. The selection was carried out by purposive sampling or deliberately based on the author's objectives, that the research location of the developing soybean agro-industry business. This needs to be done in research to find out the agro-industry development strategy contained in the research location.

2.2 Sampling Method

The method used in sampling soybean agro-industry processors in this study is the Purposive Sampling method is a sample determination technique with certain considerations, meaning that each sample taken from the population is deliberately selected based on certain purposes and considerations. The purpose and consideration of sampling this study is soybean agroindustry processors. Based on this explanation, in this study, the number of samples used was 15 soybean agroindustry processors consisting of tofu, tempeh, and soy milk agroindustry processors.

2.3 Data Collection Methods

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2.4 Data Analysis Method

To solve problems 1 and 2, a descriptive analysis method was used by looking at what factors are strengths, weaknesses, opportunities, and threats in the development of soybean agroindustry in the research area.

To resolve the issue 3 descriptive analysis was used using a SWOT matrix (Strength, Weakness, Opportunity, Threat). A SWOT analysis is based on the assumption that an effective strategy is to maximize strengths and opportunities, minimizing weaknesses and threats. The SWOT matrix consists of four factor cells (Strength, Weakness, Opportunity, Threat) and four alternative strategy cells (SO strategy, WO strategy, ST strategy, and WT strategy). This matrix clearly illustrates how the external opportunities and threats faced can be adjusted to their strengths and weaknesses. Before conducting data analysis as above, data collection is first carried out.

3. RESULTS AND DISCUSSION

3.1 Conditions of Soybean Agroindustry Development in Galang District, Deli Serdang Regency

The development of agro-industry in the research area is still in small and medium-scale businesses, this is due to the location of the agro-industry business which is less strategic because agro-industry processors still make their private homes for processing places. They do not have a special place to run an agro-industrial business

because of limited capital and they do not get assistance from the government. For labor in the processing of this agro-industrial business, they still use labor from their closest relatives and family, because the proceeds from sales are not enough if they use labor from outside. In marketing, processed soybean agro-industry products are only limited to being marketed in the Deli Serdang Regency area, but have not penetrated outside the region. This is because each region also produces the same processed products. For this reason, it is necessary to make efforts to improve quality so that it can compete in the market [6].

3.2 Analysis of Internal Factors (Strengths and Weaknesses) and External Factors (Opportunities and Threats) in the Development of Soybean Agroindustry

Based on a field review and in accordance with several methods used, to find out internal factors (strengths and weaknesses) and external factors (opportunities and threats) in soybean agroindustry processors. Through this stage, the following internal and external factors are known:

A. Strength in the Development of Soybean Agroindustry

The strengths in the development of soybean agroindustry in the research area are as follows:

1. Use of modern/advanced technology
 With the use of modern/advanced technology such as the use of steam engines and boiling places is one of the strengths in the development of soybean agroindustry in the research area, the use of this technology needs to be further improved so that agro-industrial processing can be further increased.
2. Experience in agro-industrial processing.
 Although the level of knowledge/education in the research area is still low, the processors have received knowledge/methods of agro-industrial processing from the previous processors. Agro-industrial processors that have been running for many years also provide experience for agro-industrial processors.
3. The amount of production is increasing
 In the research area, the amount of production produced is always in a stable state, although sometimes it decreases due to failure in manufacturing methods and other problems.
4. The resulting product has a taste advantage
 In agro-industrial processing, processors compete to produce their processed products with distinctive and superior flavors so that later they can be more in demand by consumers.
5. Wide product marketing
 So far, processed agro-industrial products which is in the new research area limited to being marketed locally in Deli Serdang Regency, has not penetrated the area of the area. This is because the processed products of the soybean agro-industry are less competitive with other regions, especially in terms of taste. For this reason, it is necessary to make efforts to improve quality (taste) so that it can compete in the market, efforts to expand the market can also be taken by making processed soybean agro-industrial products so that the market is wider.
6. Products known to the community
 Efforts to increase the competitiveness of the soybean agroindustry are taken by increasing consumer confidence in product quality. For agro-industrial products produced in the research area, it has been widely recognized by the public in the market.
7. Variations in products and prices
 Variations in products and prices affect consumer purchasing decisions. This is done in order to be able to attract the attention of consumers so that they can influence consumers in making purchase decisions.
8. Using trademarks
 Brand is one of the most important parts of a product. Brands can be an added value for the sale of processed soybeans.
9. The quality of soybeans is very good
 The quality of imported soybeans is not similar to local soybeans, both have their own advantages and disadvantages. In the research area, local soybeans are superior to imports in terms of raw materials for making tofu. The taste of tofu is more delicious, the yield is higher, and the risk to health is quite low because it is not a GMO seed, while imported soybeans are the opposite. Even though it is superior as a raw material for tofu, local soybeans have weaknesses for tempeh raw materials, the reason is small size or not uniform and less clean, the shell of the peanut is difficult to peel off during the soybean washing process and the shipping process is longer.
10. Abundant availability of raw materials
 The availability of raw materials affects the smooth production process, if the availability of raw materials decreases, it will hinder the production process of processed soybeans in the research area. A smooth production process is expected to produce the required number of products, with the availability of the number of products will affect sales. But if the production process is hampered, the products produced will

be disrupted, as a result of which finished products that are ready to be sold are not available, finished orders are not fulfilled and finally the sales rate decreases.

B. Weaknesses in the Development of Soybean Agroindustry

1. Limited capital
 One of the important factors in running a soybean agro-industry business is capital. The size of the soybean agro-industry business that is carried out depends on capital ownership. In general, the ownership of processing capital is still relatively small, because this capital is usually sourced from the allowance of income from previous sales.
2. Lack of professional personnel Lack of educators
 Indonesia professionals are caused because the way and process to get a profession is wrong. With abundant educators, it will certainly be profitable.
3. Processing locations are not yet strategic Agro-industry processors
 Still making his private house to be used as a processing place. They do not have a special place to run an agro-industrial business because of limited capital and they do not get assistance from the government.
4. Lack of industry partnerships
 In the research area, it is necessary to increase industrial partnerships with the hope that partnerships between industry players will be formed that can help overcome Problems faced by industry players.
5. No assistance from the government Agro-industry processors in the region
 Research, on average, they use capital from themselves in running agro-industrial businesses because now they do not get assistance from the government.
6. Non-durable products
 Processed soybean products do not last long, such as tofu, tempeh and milk only last a few days.
7. Less strategic processing location Processing is done at home
 Therefore, the location is less strategic because agro-industry processors do not create a special place for their agro-industrial business.
8. Processed products for example
 Such as tofu will be easily destroyed if you are not careful in taking it, and tempeh will be easily damaged if the packaging is not done correctly.
9. The business is still on a small scale The average agro-industrial business
 Owned in the research area is still on a small scale, because the processor runs its business with its own capital and the ownership status of a privately owned business.
10. The workforce is still a relative/family
 In running their business and processing, agro-industrial processors do not employ workers from outside but from relatives and their own families.

C. Opportunities in the Development of Soybean Agroindustry

1. High price of processed products
 Soybeans that have been processed into tofu, tempeh, milk can produce a high selling value, when coupled with the increasing number of demand for processed soybean products. So it can provide its own advantages for agro-industry processors in the research area.
2. There is government support to increase the availability of soybeans
 Soybeans are one of the most important food ingredients after Rice is used as a feed ingredient and the processed industry, because almost 90% is used as food, the availability of soybeans is a fairly important factor to get support from the government.
3. Availability of large soybean land
 The availability of large soybean fields is very good to support soybean development, but in the research area it is not so influential because some agro-industrial processors use imported soybeans compared to using local soybeans.
4. Marketing is not too difficult
 In marketing agro-industrial processed products in the research area, it is not too difficult, because processed products have been widely recognized by consumers, the public and have become a daily necessity by the people who consume.
5. Know the weaknesses of competitors' products
 The weaknesses of products produced by competitors are one of the opportunities, the processors themselves must know what weaknesses and advantages there are in their rival processors.

6. Soybeans are easy to obtain
 Agro-industrial processors in the research area have no difficulty obtaining raw materials because soybeans are easily available in the market throughout the year, but many processors prefer to use imported soybeans rather than using local soybeans.
 7. Existence of a network of cooperation between institutions
 The existence of cooperation between institutions of other processing groups is also used as a bridge between the government and processors in an effort to increase the production of soybean agro-industry processing.
 8. Creating new innovations in processing
 With new innovations in agro-industrial processing, it can provide opportunities so that in the future the soybean agro-industry can develop more. For example, by packaging, processing and others.
 9. Gain the trust of the consolation
 To gain the trust of consumers, processed products are made as good as possible so that later they will not disappoint consumers. If consumers already believe in processed products, then it is not difficult to market processed agro-industrial products.
- D. Threats in the Development of Soybean Agroindustry
1. Instability of Soybean Prices Soybeans as Agricultural Products
 It is used as the main raw material in production activities in the agroindustry. Soybean production that is not balanced with soybean demand causes a scarcity of soybeans in the market so that soybean prices become unstable. The instability of the price of soybean raw materials has caused the availability of soybeans in the market to also decrease.
 2. High Production Produced in Other Regions
 If the production of processed soybean agro-industrial products produced in other areas is higher, it can be a threat to agro-industrial processors in the research area.
 3. Competition in the Quality of Soybean Processed in Other Regions
 If the quality of processed soybeans in other regions is better and superior, the demand for soybean processors in the research area will decrease.
 4. Lack of Participation of Agroindustry Processors in Training
 The lack of definite participation in agroindustrial processing in the research area leads to a lack of knowledge and broader insight that processors have is very minimal.
 5. Lack of Coordination Between Institutions and the Government
 One of the important things in government activities is the issue of government coordination and the thing that affects the implementation of coordination is the readiness of human resources of local government apparatus is a demand for professionalism of government apparatus which means having the ability to carry out duties, there is a commitment to the quality of work, dedication to the interests of the community as a party served by the local government.
 6. Rise and Fall in Imported Soybean Prices
 The instability of imported soybean prices is one of the threats faced by processors, it will affect the production of processed agro-industries, for example, the price of processed agro-industrial products increases or shrinks in size and sometimes some processors stop their businesses because they continue to lose money.
 7. Imported Soybeans Mixed With Local Soybeans
 Not a few agro-industry processors find imported soybeans mixed with local soybeans, if that happens, it will give a different taste to the processed soybeans.
 8. Failing to Perform Processing
 In carrying out processing, not a few processors have experienced failures in their business. In the processed products they make, sometimes they experience failures, such as damage that occurs to the processed products they make.
 9. Price Competition in the Market Price Competition in the
 The market is a threat to processors, therefore processors must be more careful in determining prices in the market.
 10. The Increasing Number of People Selling Similar Agro-Industrial Products
 The number of competitors in agro-industrial processors is one of the threats to them, because competitors sell similar agro-industrial products.

3.3 Soybean Agroindustry Development Strategy

In the development of the soybean agro-industry, we are always faced with problems, and challenges in the processing and production processes produced, these problems and challenges can be used as a reference to determine.

3.4 Data Collection Stages

The data collection stage is data collection and classification and pre-analysis activities. At this stage, the data will be divided into two, namely internal data and external data. The models used are the Internal Strategy Factor Matrix (IFAS) and the External Strategy Factor Matrix (EFAS) [7].

Furthermore, the results of the identification of external factors that are opportunities from threats are also rated and weighted.

After the transfer of ratings and weights for the EFAS matrix table, the next merger between strategic factors is carried out internal and external strategic factors. The merger of the two will be displayed by calculating the weight of each factor multiplied by the rating from each factor that then produces a score.

The difference between internal strategic factors (strengths) was 0.07 which means that the influence of strength was greater than the influence of weakness on the development of Soybean Agroindustry in the study area. Meanwhile, the difference in external strategic factors (opportunities – threats) was 0.06 which means that the influence of opportunities was greater than the influence of threats on the development of the Soybean Agroindustry in the research area [8].

Based on the merger of internal and external factor matrices, it can be known the position of the Soybean Agroindustry Development Strategy in Galang District, Deli Serdang Regency. The position of the Soybean Agroindustry Development Strategy in agro-industry processors is analyzed using a position matrix, so that it will produce coordinate points (x,y). The value x is obtained from the difference between internal factors (strength – weakness) and the value y is obtained from the difference in external factors (opportunity – threat).

From the results of the internal-external matrix obtained in the figure above, the development of the Soybean Agroindustry in Galang District, Deli Serdang Regency is in a favorable position. The position of soybean agroindustry development is in quadrant I, namely Aggressive Strategy, meaning that this position indicates that the development of the soybean agroindustry has strength and also has opportunities in the development of the soybean agroindustry. For this reason, The strategy that must be applied in such conditions is the S0 (strengths and opportunity) strategy.

In the research area, the position of the Soybean Agroindustry Development business is in quadrant I, so the right strategy to be used in this position is the Aggressive Strategy. Aggressive strategy is a strategy that focuses on the SO (strengths and opportunity) strategy, which is using strengths to take advantage of opportunities.

4. CONCLUSION

Based on the results of the study, it shows that the development of agro-industry in the research area has strengths and also has opportunities in the development of soybean agro-industry. For this reason, the strategy that must be implemented in such conditions is the SO (Strengths and Opportunity) strategy.

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