Business Development Strategy for Shallot Seed Breeding in Medan City

Siharma Sitinjak¹, Rahmanta², Salmiah²

¹,²Master of Agribusiness Study Program, Faculty of Agriculture of University of Sumatera Utara Province
Corresponding Author: Siharma Sitinjak

ABSTRACT

The purpose of this study was to analyze the factors that influence the development of shallot seed breeding businesses and prioritize alternative strategies to increase the production and development of shallot seed breeding businesses in Medan City. The research was conducted in October 2020 in Medan Marelan District, Medan City, Sumatera Utara Province. The research method used the census method with a total sample of 15 respondents. The data analysis used to answer the objectives is the IFE, EFE, SWOT and QSPM analysis. The results showed that based on the IFE analysis the score was 2.625 and the EFE analysis was the score of 2.52. Both scores are above 2.5, which means that the internal and external positions are quite strong. Based on the IE (Internal-External) matrix, the results show that the shallot seed breeding is in quadrant V with a hold and maintain strategy. Based on the SWOT matrix analysis, this business is in quadrant I, the strategy that can be applied to this quadrant is the SO / Aggressive strategy (positive, positive). Capital from the government or financial institutions for seed breeder farmers with a total attractiveness value (STAS) of 6.93.

Keywords: shallot seed breeding, business development strategy

BACKGROUND

Shallots are one of the vegetable commodities that have been cultivated for a long time by farmers intensively and have an important meaning for the community, both from their economic value and from their nutritional content. In the last decade the demand for domestic shallots has continued to increase, both for consumption and seeds, so that Indonesia has to import to fulfill some of these needs. To reduce the volume of imports, the increase in production and quality of shallot products must be increased. The shallot commodity is a source of income and job opportunities that has a high contribution to regional economic development. However, agricultural products, including shallots are still faced with several problems of high price fluctuation and sensitivity, especially due to changes in demand and supply. During the planting season the farmers experience high quality seed prices, while at harvest time the product prices are low.

The prospect of developing shallots in Indonesia is quite bright when it is related to the existing market potential. Apart from meeting the domestic market whose demand continues to increase by around 4.6% / year, the opportunity to increase exports is still wide open, especially to fill the export market opportunities for super shallots. However, until now, exports have been carried out on a limited basis, given the huge domestic demand. Indonesia's competitor countries to fill the export market are Malaysia, Thailand, the Philippines and Taiwan. The seed factor plays an important role in the success of plant production. The use of high quality seeds is the first step to increasing production (Rahayu and Berlian, 2004). The high demand for shallot seeds, both in the form of commercial seeds and source seeds, has not been followed by seed production.

The productivity of shallots in Sumatera Utara Province is low compared
to the production centers of shallots such as Central Java. One of the main reasons for the low productivity is the low quality of seeds. Until now, there are still a few plant seed breeders who breed shallot seeds. As a result, it is difficult for farmers to get quality shallot seeds. Until now, shallot production in Sumatera Utara Province is only around 24,800 tons per year. This amount has not been able to meet the demand for shallots in Sumatera Utara Province which reached 66,420 tons per year. Therefore, to meet demand, Sumatera Utara Province is forced to import shallots from Brebes, India, Pakistan and China. In Sumatera Utara Province itself, there are at least five regions that are centers of shallot production, namely Tapanuli Utara, Humbang Hasundutan, Simalungun, Samosir and Tanah Karo. The minimum number of shallot seed breeders results in low seed production, so that farmers find it difficult to obtain seeds during the planting season which can cause the planting schedule to change.

According to data from the Medan City Agriculture and Fisheries Service (2020), the number of shallot farmers in Medan Marelan District is 45 people, of which 15 are seed breeders while the others are consumption shallot farmers. In addition, farmers are still reluctant to work as seed breeders, this is due to the lack of knowledge about seeds, cultivation technology, capital and assistance from related agencies, besides that shallot farmers in this area also do not know how to develop a business development strategy for shallot seed breeding.

**Strategy**

Strategies have multifunctional or multidivisional consequences and need to consider both internal and external factors facing the company (David, 2010). In addition, according to (Rangkuti, 2005) strategy is a long-term goal of a company as well as a formulation of utilization and all resource allocations that are important in order to achieve the company's goals. The formulation of the strategy is divided into three stages, namely:

1. **Strategy formulation** includes developing a vision and mission, identifying opportunities and threats to the company's external environment, determining the strengths and weaknesses of the company's internal environment, setting long-term goals, formulating alternative strategies and selecting specific strategies to be implemented.

2. **Strategy implementation** is what requires the company to set annual goals, formulate a policy, motivate its employees, and allocate resources so that the formulated strategy can be implemented.

3. **Strategy evaluation**, three basic activities in strategy evaluation, namely reviewing internal and external factors that are the company's current strategy, measuring performance or achievement and taking corrective action. The final part of strategic management is strategy evaluation.

**Internal and External Environmental Analysis**

Internal environmental analysis is intended to develop a list of strengths that can be exploited and a list of weaknesses that must be overcome. The company's internal environment describes the quantity and quality of human, physical, financial resources and can also predict the weaknesses and strengths of the organizational structure and company management (Pearce and Robinson, 1997).

Elements that need to be analyzed in the organization's internal environment according to Pearce and Robinson (1997) and Saputrayadi (2004), namely:

1. The company's organizational structure, which is a pattern of relationships, formal forms of regulations and relationships between people in the company.

2. Company culture is a set of beliefs, expectations and values that are
understood and implemented by every member of the company that will shape behavior.

3. Company resources, including human resources, production resources, financial resources, marketing, research and development.

According to David (2006) and Hubeis (2011), there are several internal factors that can affect company development, namely:
1. Management
2. Marketing
3. Human Resources
4. Production and operations
5. Finance

External Environmental Analysis is to develop a list of opportunities that can be exploited and a list of threats to be avoided. The external environment can be divided into two, namely the micro environment and the macro environment. The micro environment consists of actors in the environment that is directly related to the company who can affect capabilities. Companies to serve the market. The macro environment consists of competitors, suppliers, new entrants, substitute products and consumers. External factors according to David (2006) and Hubeis (2011) that can affect company development, namely:
1. Economy
2. Government and Political Policy
3. Technology
4. Competitors
5. The threat of newcomers
6. Bargaining power of consumers
7. Bargaining power of suppliers
8. Threat of substitute products

**Framework**
The development of shallot seed captive farming is influenced by various factors. These factors are internal and external factors of farming. The development of a good shallot seed breeding farm will increase the income and standard of living of the farmers. To be able to develop this shallot seed farming, a strategy is also needed. To find a suitable alternative strategy, an analysis of the internal and external environment must be carried out which will be compiled in a SWOT matrix.

![Figure 1. Framework](image-url)
Hypothesis
1. The shallot seed breeding farm in the study area is in a strong internal and external position.
2. Implementation of priority strategies in the breeding of shallot seeds in the research area will increase farmers' income and welfare.

RESEARCH METHODS
This research was conducted in Medan Marelan District, Medan City, North Sumatra Province. Research data was collected in October 2020. The population of certified shallot breeders in Medan Marelan is still relatively small, namely 15 people. The sampling method used was the census method, where all shallot seed farmers were sampled. Primary data collection is done by direct observation (observation) in the field and interviews using a questionnaire. To analyze the strategy for developing shallot seed captive farming, a SWOT analysis was used. Data analysis was carried out qualitatively and quantitatively. The collected data were analyzed using Internal Factor Evaluations (IFE) and External Factor Evaluations (EFE) analysis, SWOT analysis and QSPM (Quantitative Strategic Planning Matrix) analysis.

RESULTS AND DISCUSSION
Identification of Internal Factors (IFE) in Shallot Seed Breeding
Based on the results of the analysis of internal factors, there were several strengths and weaknesses that affected the breeding of shallot seeds as presented in the IFE Calculation Analysis table for Shallot Seed Breeding below:

<table>
<thead>
<tr>
<th>Strength</th>
<th>IFE Matrix</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The fertility area is suitable for cultivation</td>
<td>0.11</td>
<td>0.44</td>
</tr>
<tr>
<td>2. Availability of independent seeds</td>
<td>0.30</td>
<td>0.40</td>
</tr>
<tr>
<td>3. Quality Certified Seed Products</td>
<td>0.09</td>
<td>0.27</td>
</tr>
<tr>
<td>4. The farmer is quite experienced</td>
<td>0.095</td>
<td>0.285</td>
</tr>
<tr>
<td>5. Active Farmer Group</td>
<td>0.105</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Sub Total: 1.815

<table>
<thead>
<tr>
<th>Weakness</th>
<th>IFE Matrix</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Narrow / Limited Land</td>
<td>0.11</td>
<td>0.22</td>
</tr>
<tr>
<td>2. Need Big Capital</td>
<td>0.10</td>
<td>0.20</td>
</tr>
<tr>
<td>3. Long cultivation time</td>
<td>0.10</td>
<td>0.20</td>
</tr>
<tr>
<td>4. Lack of Technology</td>
<td>0.10</td>
<td>0.20</td>
</tr>
<tr>
<td>5. Weak distribution channel</td>
<td>0.09</td>
<td>0.09</td>
</tr>
</tbody>
</table>

Sub Total: 0.81
TOTAL: 2.625

Based on the results of the Internal Factor Evaluations (IFE) analysis, the value is above the average of 2.5, which means that the shallot seed breeding business can be profitable where the internal position is strong enough to have the above average ability to utilize strengths and anticipate internal weaknesses (David, 2006). As for the biggest strength of this shallot seed breeding business, namely soil fertility with a score of 0.44 and the smallest strength, namely the quality of production, which is certified seed with a score of 0.27. Meanwhile, the internal factor which is the main weakness of this business is a weak distribution channel with the lowest score of 0.09. The existence of a large and permanent distribution channel for captive seeds in Medan Marelan District is very important and influences business sustainability, so this weakness must be addressed immediately so that this business is able to develop its business.

Identification of External Factors (EFE) in Breeding Shallot Seeds
Based on the results of the analysis of internal factors, there were several strengths and weaknesses that influenced the captive breeding of shallot seeds as
presented in the Table of Identification of External Factors (EFE) of Shallot Seed Breeding below:

<table>
<thead>
<tr>
<th>No</th>
<th>External Factors</th>
<th>EFE Matrix</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Quality</td>
<td>Rate</td>
</tr>
<tr>
<td>1.</td>
<td>High market demand</td>
<td>0.11</td>
<td>4</td>
</tr>
<tr>
<td>2.</td>
<td>Become a certified seed center</td>
<td>0.09</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>Price of high quality seeds</td>
<td>0.10</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>Government support</td>
<td>0.10</td>
<td>3</td>
</tr>
<tr>
<td>5.</td>
<td>Increase in farmer income</td>
<td>0.10</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Sub Total</strong></td>
<td><strong>1.71</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Quality</strong></td>
<td><strong>Rate</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1.00</strong></td>
<td><strong>2.52</strong></td>
</tr>
</tbody>
</table>

The biggest threat faced by this farming is competition with non-certified seeds and the high price of consumption shallots with a score of 0.22 and the smallest threat is land / commodity conversion with a score of 0.09. Among internal and external factors, the most dominant factor is internal. The difference between internal and external factors is 0.105. The higher the internal factor than the external factor of Medan Marelan district, shows that the effort in using strength to minimize weaknesses is above the average effort in taking advantage of opportunities to minimize threats. The next stage is the matching stage which is the second step in the formulation of a strategy that functions to be able to determine the decision making of an alternative strategy, namely the IE matrix and the SWOT matrix (strength, weakness, opportunity, threat).

**Positioning Based on IE Matrix**

IE matrix places this farm in 9 cells which contains information about the total value that has been weighted from the IFE and EFE matrices. Based on the weighting results and the total score on the IFE owned by the shallot seed breeding farm is 2,625 and the total score on the EFE is 2.52. Then the two IFE and EFE matrices are paired in the IE matrix and the results are in quadrant V, which means that the shallot seed captive business can apply a hold and maintain strategy, a suitable strategy to use in this farming is market penetration and product development (David, 2010). IE matrix in Figure 2 below:

**SWOT matrix**

From the results in table 4.8 it can be seen that there are several alternative strategies obtained from internal factors (strengths and weaknesses) and external factors (opportunities and threats) in the shallot seed breeding business in Medan Marelan District, namely as follows:

1. **S - O strategy**

   This strategy is based on the company's thinking, namely by utilizing the strengths and opportunities as much as possible, namely:
   a. Maximizing the availability of Resources to increase production to meet high market demands (S1, S2,
S3, S4, O1, O3, O5). The activities carried out were increasing the area of land for shallot seed planting, using the existing land to focus more on the breeding of shallot seeds.

### Table 3. SWOT Matrix of Shallot Seed Breeding Business Development

<table>
<thead>
<tr>
<th>IFE</th>
<th>Strength</th>
<th>EFE</th>
<th>Weakness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Fertility areas suitable for cultivation</td>
<td></td>
<td>1. Narrow / Limited Land</td>
</tr>
<tr>
<td></td>
<td>2. Availabilty of independent seeds</td>
<td></td>
<td>2. Big Capital Needs</td>
</tr>
<tr>
<td></td>
<td>3. Quality Certified Seed Products</td>
<td></td>
<td>3. Long cultivation time</td>
</tr>
<tr>
<td></td>
<td>4. Farmers are quite experienced</td>
<td></td>
<td>4. Lack of Technology</td>
</tr>
<tr>
<td></td>
<td>5. Active Farmer Groups</td>
<td></td>
<td>5. Weak distribution channels</td>
</tr>
</tbody>
</table>

**Opportunities**

1. High market demand
2. Becoming a certified seed Centre
3. Price of high quality seeds
4. Government support
5. Increased farmer income

**SO Strategies**

Maximizing the availability of resources to increase production to meet market demand (S1, S2, S3, S4, O1, O3, O5)

Empowerment of farmer groups with continuous government support so that these areas become certified seed centers (S4, S5, O2, O4, O5)

**Weakness**

1. Narrow / Limited Land
2. Big Capital Needs
3. Long cultivation time
4. Lack of Technology
5. Weak distribution channels

**Threats**

Competition with non-certified seeds
Pest Attack of Plant Diseases
Natural conditions (climate anomalies)
Change of land / commodity function
The high price of consumption shallots

**WT Strategies**

Expanding the market network with large absorption (W5, T4, T5)

Guaranteed price stabilization of shallots by the government (W2, W3, T5)

**ST Strategies**

1. Promotion of quality and yield from the use of certified seeds (S3, S4, S5, T1)
2. Improve human resource skills to deal with Pests and Plant Diseases attacks and climate anomalies (S4, T2, T3)

**WO Strategies**

1. Memperluas lahan penangkaran benih bawang merah (W1, O1, O2, O4, O5)
2. Adanya akses bantuan modal dari pemerintah atau lembaga keuangan (W2, O2, O4, O5)
3. Penerapan teknologi produksi percepatan budidaya benih bawang merah (W3, W4, O1, O2, O5)

b. Empowerment of farmer groups with continuous government support so that these areas become certified seed centers (S4, S5, O2, O4, O5). Activities carried out: mentoring through expert agricultural extension agents on a regular basis, technical training on the latest seed cultivation technology, formation of farmer group cooperatives.

2. **S - T strategy**

This strategy is a strategy in using the company's strengths to overcome threats, namely:

a. Promotion of the quality and yield of the use of certified seeds which is much better than non-certified / jabal seeds. (S3, S4, S5, T1). Activities carried out are selling through social media, online media, exhibitions and bazaars.

b. Improve the skills of human resources to deal with Pests and Plant Diseases attacks and climate anomalies with training and counseling from relevant agencies (S4, T2, T3). Activities carried out include following technical guidance, internships in other seed center areas.

3. **W - O strategy**

This strategy is implemented based on exploiting existing opportunities by minimizing existing weaknesses, namely:

a. Expanding shallot seed breeding areas (W1, O1, O2, O4, O5). Activities carried out include finding new vacant lands for breeding shallot seeds, transferring land functions to other commodities.

b. Access to capital assistance from the government or financial institutions for production costs (W2, O2, O4, O5). Activities carried out include facilitating seed breeder farmers in funding their farming or collaborating with banks / entrepreneurs for low interest / unsecured capital assistance, and the
process is easy in developing this farming.

c. Application of production technology for accelerated cultivation of shallot seeds (W3, W4, O1, O2, O5). Its activities are to find and use superior seeds with a faster quality and quality harvest period from seed breeding centers in Java island.

4. W - T strategy

This strategy is based on activities to minimize existing weaknesses to avoid threats, namely:

a. Expanding market network with large absorption (W5, T4, T5). Its activity is to find areas that have not used large-scale certified shallot seeds both locally and outside the city. Seize cooperation opportunities with private investors / entrepreneurs.

b. Guaranteed price stabilization of shallots by the government (W2, W3, T5). The activities carried out are the regulation of market stock through Bulog, the absorption of products during the main harvest.

QSPM (Quantitative Strategic Planning Matrix) Analysis

The decision stage is the last stage in strategy formulation, namely by establishing strategic alternatives where the company determines a good strategy to be implemented first so that the results obtained can be more optimal. The tool for analyzing at this stage is to use the QSPM (Quantitative Strategic Planning Matrix).

The calculation of the QSPM analysis will produce the total attractiveness score (TAS) of each strategy. The results of the QSPM calculation show the TAS value from the highest to the lowest, therefore a strategy for the development of shallot seed breeding that is recommended to be implemented in Medan Marelan district is as follows:

1. Access to capital assistance from the government or financial institutions
2. Application of production technology to accelerate shallot seed cultivation
3. Expanding the market network with great absorption
4. Maximiing the availability of resources to increase production to meet market demand
5. Improve human resource skills to deal with Pests and Plant Diseases attacks and climate anomalies.
6. Empowerment of farmer groups with continuous government support so that these areas become certified seed centers.
7. Expanding seed breeding areas
8. Promotion of quality and yield from the use of certified seeds.

The results of the QSPM analysis show that the best strategy or strategy that must be implemented first is the WO strategy (Combination of Weaknesses and Opportunities) "Access to capital assistance from the government or financial institutions for seed breeder farmers" with a total value of attractiveness (STAS) of 6.93. This is the best strategy among other alternative strategies.

CONCLUSION

1. Based on the IFE analysis, a score of 2.625 was obtained and EFE analysis was obtained with a total score of 2.52. The two scores are above 2.5, which means that the internal position is strong enough which has the ability above average to take advantage of strengths and anticipate internal weaknesses, as well as a strong external position which has the above average ability to take advantage of opportunities and anticipate external threats.

2. Based on the SWOT analysis, shallot seed farming in Medan Marelan District is in quadrant I, which means that the Aggressive Strategy is to maximize the availability of resources to increase
production to meet market demand and empower farmer groups with continuous government support so that this area becomes a certified seed center.

3. Based on the SWOT matrix analysis and the decision stage (QSPM): The first strategy carried out for the development of shallot seed breeding businesses in Medan Marelan District is access to capital assistance from the government or financial institutions for seed breeder farmers with a total value of attraction (STAS) amounting to 6.93.

REFERENCES
Siharma Sitinjak et.al. Business development strategy for shallot seed breeding in Medan City.

pm-quantitativestrategicplanning_31.html diakses september 2020


******