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### Strategy for Porang Agribusiness Commodity Development in Desa Mappili Kabupaten Polewali Mandar

Irshan Zulfikar Malluluang<sup>1\*</sup>, Jusni<sup>1</sup>, Abd. Harris<sup>1</sup>

<sup>1</sup>Agribusiness Study Program, Faculty of Agriculture, Hasanuddin University, Makassar

#### Abstract

The porang plant is an important strategic commodity and has high economic value, besides that the cultivation process which is relatively easy and simple is one of the reasons for people to participate in the process of cultivating porang plants. One of the organizations participating in the development of this commodity is the Mattura Indo Farm Group, which focuses on managing its porang plants in Mapili Village, Polewali Manda Regency, West Sulawesi.

**Keywords:** Agribusiness Strategy, Porang Plant, SWOT Analysis

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#### 1. Introduction

Agriculture is one of the main driving sectors in Indonesia's economic development. One of which is porang farming. Porang or *amarphophallus oncophyllus* prain is a tuber plant that produces carbohydrates, fats, proteins, minerals, vitamins and dietary fiber which has many uses. High economic value can be an attraction for people and entrepreneurs who intend to make it a business opportunity [1].

The porang cultivation system is considered to be quite simple, that is, farmers only plant bulbils the first time they try porang and then every year the bulbils will naturally disperse from the plant. Farmers harvest their first cassava after three years from the year of the first planting. With this simple cultivation process, farmers are interested in starting to cultivate the porang plant because the profits are quite large.

Apart from the simple cultivation process, the large business opportunity for this

commodity is also the reason why farmers are interested in growing porang plants. This business opportunity is marked by the large potential of the porang plant as an export commodity. Requests from various foreign countries are based on the need to procure porang plants which are used as food and industrial materials in the form of flour or food ingredients processed from tubers. The countries in question are Japan, Australia, Sri Lanka, Malaysia, New Zealand, England, Italy, Pakistan, and Korea [2].

Government support for the cultivation of porang plants is indicated by the designation of porang plants as a super priority commodity in the context of increasing export value in agriculture. The Ministry of Agriculture is trying to optimize the cultivation and maximum productivity of porang by encouraging this commodity processing industry.

Porang plants on the island of Sulawesi which have become increasingly popular in recent years can be seen in the export of 60 tons of plants or the equivalent of Rp. 1.2 Billion to China and these plants are also increasingly in demand in the export market.

Porang development in fulfilling export needs can be done in processed or fresh form. These agricultural and processing activities have become a new livelihood for the community, especially the people of Polewali Mandar.

The economic potential of the porang commodity is also an attraction for one of the farmer groups in Ruppa village, Polewali Mandar. But in reality, the magnitude of the potential that exists has not been maximized by farmers. Therefore, it is necessary to formulate an alternative strategy that will be used as a way to develop the porang commodity agribusiness in the village.

Agribusiness development strategy is very necessary for the company's long-term goals, besides that the preparation of this strategy is carried out in an effort to achieve the goals expected by the company. Lawrence R Jauch and William F. Glueck said that strategic management is a number of decisions and actions that lead to the preparation of a strategy or a number of effective carried out to help achieve company goals. Strategic management is a unified series of decisions and actions that can determine the company's performance in the long term [3].

The preparation of the strategy for the development of the porang commodity is a response to the real conditions in the porang cultivation area which includes internal factors in the form of strengths and weaknesses, and external factors which include opportunities and threats that may affect the company. One of the methods used in analyzing these factors to develop a strategy for developing a commodity can use a SWOT analysis (Strength, Weakness, Opportunities, and Threats).

## **2. Research Methods**

The research was conducted in Ruppa Village, Mappili District, Polewali Mandar Regency, West Sulawesi Regency. The selection of the research location was based on several considerations, namely the location survey that had been carried out and in accordance with the research objectives. The selection of the population was carried out using a sampling technique with the purposive method, namely the author deliberately determined the research sample that was considered capable of answering each question asked [4]. The number of population samples taken was 14 people consisting of members of the mattura indo farm group, farmers, extension workers, agricultural services, collectors. The primary data obtained includes all alternatives obtained from strengths, weaknesses, opportunities and threats. Data processing was carried out by identifying internal and external factors using SWOT analysis through the IFAS and EFAS matrices, then using the IE matrix to see the strengths of porang farmers. Furthermore, the SWOT matrix is used to obtain several alternative strategies [4]; [5]; [6].

### 3. Results and Discussion

#### 3.1. SWOT analysis

SWOT analysis is an analysis of the internal and external conditions of a company or organization which will then be used as a basis for planning strategies and work programs to be carried out next. Internal analysis includes an assessment of strengths and weaknesses, and external analysis includes an assessment of opportunities and challenges.

The formulation of alternative strategies is carried out through two stages, namely the stage of grouping the results of the identification that has been carried out and concluding the basic information obtained in the formulation of the strategy using the IFE (*Internal Factor Evaluation*) and EFE (*External Factor Evaluation*) matrices. The second stage is the strategy formulation stage using SWOT analysis.

##### *Identification of Internal Factors*

Internal factors consist of strengths and weaknesses that come from the commodity agribusiness porang. The strengths and weaknesses factors were obtained from the answers of the respondents to the results of the questionnaires that had been distributed. The respondent's answer is an experience that has lasted so far in the process of cultivating porang plants.

Strength factors in agribusiness are production centers, diversity and climatic conditions, product diversity, local and international trade, sales, processing, natural resources, and plant utilization. The results of the analysis show that strength (Strenght) in porang commodity agribusiness in Ruppa Village, Polewali Mandar is:

1. The existence of human resources in porang farming (S1)
2. Increased porang production (S2)
3. The ease of the cultivation process is by using an overlapping cropping system (S3)
4. There is an understanding of farmers regarding the cultivation of porang plants (S4).

Factors of weakness (*Weakness*) in agribusiness with regard to economic aspects, land area, added value, product

1. Marketing places that are still limited or marketing is still local market (W1)
2. There are some farmers who still do not follow the directions from extension workers (W2)
3. The technology used by farmers is still simple, farmers do not yet have Porang raw material processing machines (W3).
4. Farmers' understanding of porang price information is still relatively weak (W4)
5. The price of porang produced is determined by collectors (W5).

Some of the strengths and weaknesses factors mentioned above are then identified to assess and find out how important these factors are. The following is a detailed analysis of internal factors in the development of porang commodity agribusiness.

**Table 1.** IFE (Internal Factor Evaluation)

| <b>Internal Factor Matrix</b> |                                                               |               |                |             |
|-------------------------------|---------------------------------------------------------------|---------------|----------------|-------------|
| <b>No</b>                     | <b>Strength</b>                                               | <b>Weight</b> | <b>Ratings</b> | <b>Mark</b> |
| 1.                            | Human resources in porang farming                             | 0.11          | 3              | 0.33        |
| 2.                            | Increasing people's productivity                              | 0.15          | 4              | 0.60        |
| 3.                            | Farmers use an overlapping cropping system                    | 0.13          | 3              | 0.39        |
| 4.                            | There is an understanding of farmers regarding porang farming | 0.10          | 3              | 0.30        |
| Sub-Total                     |                                                               | 0.49          | 13             | 1.62        |
| <b>No</b>                     | <b>Weakness</b>                                               | <b>Weight</b> | <b>Ratings</b> | <b>Mark</b> |
| 1.                            | Marketing places are still limited or marketing is still      | 0.15          | 1              | 0.15        |

|           |                                                                     |      |    |      |
|-----------|---------------------------------------------------------------------|------|----|------|
|           | local market                                                        |      |    |      |
| 2.        | Some farmers have not followed the instructor's directions          | 0.07 | 3  | 0.21 |
| 3.        | There is no machine for processing Porang raw materials             | 0.15 | 1  | 0.15 |
| 4.        | Lack of understanding of farmers regarding porang price information | 0.07 | 3  | 0.21 |
| 5.        | Price determined by collector                                       | 0.07 | 3  | 0.21 |
| Sub-Total |                                                                     | 0.51 | 11 | 0.93 |
| Total     |                                                                     | 1.00 | 24 | 2.55 |

Determination of the weight on each factor starts from 0.0 (not important) to 1.0 (very important), and the total weight given must be equal to one. In the rating column, the values given range from 1 to 4. Ratings for strengths (1 = not important, 2 = less important, 3 = important, and 4 = very important) while the values in the rating column for weaknesses are the opposite. The value in the weight and rating column above is obtained based on the results of the questionnaire distributed to the respondents, and the value column is obtained from the multiplication between the weight and rating.

### Identification of External Factors

External factors consist of opportunities and threats, external factors are factors that come from outside the company or organization environment. External factors include, marketing and distribution, trade, consumption behavior and access, people's purchasing power. Following are the opportunity factors (*Opportunities*) in the porang commodity in Polewali Mandar Regency:

1. Increasing development of agricultural technology (O1)
2. There is central and local government support related to porang (O2) farming
3. Increasing market demand both domestically and abroad (O3)
4. Easily available agricultural facilities and infrastructure (O4).

In addition to opportunity factors, in the external environment of a commodity there are also threat factors or challenges that must be faced. Things that are used as threat factors include trade dynamics, product competitiveness, irrigation, capital, facilities and infrastructure, farmer incentives, institutions, prices, the level of public knowledge of the benefits of porang. The following are the various threats received:

1. Weather conditions are sometimes unfavorable, affecting the productivity of porang plants (T1)
2. There are many producers of porang so that the price of porang decreases (T2)
3. Transportation that does not support (T3)
4. Pest attacks that sometimes attack porang plants (T4).

factors mentioned above are then identified to assess and find out how important these factors are. The following is a detailed analysis of internal factors in the development of porang commodity agribusiness.

**Table 2.** EFE (External Factor Evaluation)

| External Factor Matrix |                                                                         |        |         |      |
|------------------------|-------------------------------------------------------------------------|--------|---------|------|
| No                     | Opportunity                                                             | Weight | Ratings | Mark |
| 1.                     | Development of agricultural technology                                  | 0.18   | 4       | 0.72 |
| 2.                     | There is central and local government support related to porang farming | 0.16   | 3       | 0.48 |
| 3.                     | Increasing market demand both domestically and abroad                   | 0.09   | 2       | 0.18 |
| 4.                     | Easily available agricultural facilities and infrastructure             | 0.13   | 3       | 0.39 |

| Sub-Total |                                                                                           | 0.56   | 12      | 1.77 |
|-----------|-------------------------------------------------------------------------------------------|--------|---------|------|
| No        | Threat                                                                                    | Weight | Ratings | Mark |
| 1.        | Weather conditions are sometimes unfavorable, affecting the productivity of porang plants | 0.13   | 1       | 0.13 |
| 2.        | There are so many porang producers that make porang prices decrease                       | 0.09   | 2       | 0.18 |
| 3.        | Unsupported transportation                                                                | 0.09   | 2       | 0.18 |
| 4.        | Pest attacks that sometimes attack porang plants                                          | 0.09   | 1       | 0.13 |
| Sub-Total |                                                                                           | 0.44   | 6       | 0.62 |
| Total     |                                                                                           | 1.00   | 18      | 2.39 |

Table 2 shows the external factors in the development of porang agribusiness commodities at Mattura Indo Farm, there are 4 opportunity factors and 4 threat factors. The weighting and rating of each of these factors is based on significant to insignificant impacts. The resulting data shows that the opportunity weight of farmers is higher when compared to the threats they get. This shows that porang farmers in Mattura Indo Farm have greater opportunities in their agribusiness development efforts.

Giving weights and ratings in table 2 above is the same as giving weights in table 1 before, namely in the value column obtained from the multiplication between the weights and ratings. Determination of the weight on each factor starts from 0.0 (not important) to 1.0 (very important), and the total weight given must be equal to one. The rating in the opportunity and threat column is given from 1 to 4, where the rating for opportunity is (1 = not important, 2 = less important, 3 = important, 4 = very important). Meanwhile, the threat column is the opposite of the opportunity column.

### 3.2 Alternative Development Strategies for Porang Plant Commodity Agribusiness

Alternative strategies for developing agribusiness for porang commodity agribusiness are obtained from various combinations of internal and external factors, which are considered based on the dynamics that occur in the field. The various alternative strategies which are the results of an analysis of the SWOT matrix are as follows.

#### a. SO Strategy (Strengths and Opportunities)

Alternative strategies obtained from internal strengths and external opportunities are in the first quadrant, namely by exploiting existing strengths and opportunities. This strategy can be regarded as an important strategy in developing porang plants. The following are alternative strategies in question:

1. Utilizing technological developments to improve product quality (S2+O1).
2. Increasing the productivity of porang plants by utilizing human resources, facilities and infrastructure and development of agricultural technology (S1+O1+O4).
3. Increasing farmers' understanding of the production process to achieve production results that are able to compete in both domestic and foreign markets (S4+O3).

#### b. WO Strategy (Weaknesses and Opportunities)

Alternative strategies that take advantage of opportunities in minimizing weaknesses are obtained from the formulation of strategies through SWOT analysis as follows:

1. The government bridges local farmers so they can market their products to foreign markets (W1+O2+O3).
2. There is support from the government by providing porang processing machines from raw goods to finished materials so that the products produced are able to compete (W3+O1+O2+O3).

3. The government regulates and socializes the selling price of porang to farmers and collectors, taking into account production costs and product quality produced by farmers (W4+W5+O2).

c. *ST Strategy (Strengths and Threats)*

Strategies resulting from the utilization of strength factors in minimizing threat factors are:

1. Development of farmers' understanding of how to anticipate extreme weather and pest attacks that can affect porang crop productivity (S4+T1+T4).
2. Improving the quality of porang produced so that they are able to compete in both domestic and foreign markets (S2+T2).

d. *WT Strategy (Weaknesses and Threats)*

The last alternative strategy is obtained from the fourth quadrant, namely by minimizing existing weaknesses to avoid or eliminate the threats encountered. Alternative strategies can be:

1. Provision of adequate transportation that can be used to market porang products (W1+T3).
2. Farmers follow the directions given by extension agents regarding the anticipation of pest attacks and extreme weather that may occur and threaten to damage porang production (W2+T1+T4).

The results of the analysis of the strategy for the development of the agribusiness crop commodity of porang obtained through the SWOT analysis method, it can be concluded that the development of the commodity of porang plant has several internal factors, both strengths and weaknesses as well as external factors, namely opportunities and threats. Several strength factors are owned in the development of porang commodity farming, namely the existence of human resources capable of running porang farming, increasing porang production, planting porang using an overlapping system, the understanding of farmers related to porang farming. Apart from that, other internal factors, namely weaknesses, include limited marketing space, some farmers still have not followed directions from the extension workers, there is no machine for processing porang raw materials, lack of understanding of farmers regarding information on porang prices, collectors determine prices. While external factors contained in the development of porang agribusiness farming, namely opportunities including, development of agricultural technology, support from the central and local government related to porang farming, increasing market demand both domestically and abroad, facilities and infrastructure that are easy to obtain. As well as threat factors including, weather conditions which are sometimes unfavorable so that it affects the productivity of porang plants, the large number of porang producers which causes porang prices to decrease, transportation that is not yet supportive, pest attacks which sometimes attack porang plants.

Alternative strategies formulated in an effort to overcome the weaknesses and threats that exist in the development of commodity agribusiness porang, can be done by utilizing the strengths and opportunities that exist. These alternative strategies include: Utilizing technological developments in an effort to improve product quality; increasing the productivity of porang plants by utilizing human resources, facilities and infrastructure as well as developments in agricultural technology; increase farmers' understanding of the production process to achieve production results that are able to compete in both domestic and foreign markets; the government bridges local farmers so they can market their products to foreign markets; there is government support that is able to provide porang processing machines so that they are able to produce products that can compete in foreign markets; the government regulates and socializes the selling price of porang to farmers and collectors, taking into account production costs and product quality; developing farmers' understanding of how to anticipate extreme weather and pest attacks that can affect porang crop productivity; improve

the quality of the people produced so that they are able to compete in the market; provision of adequate transportation capable of being used to market people's products; farmers follow the directions given by extension workers regarding the anticipation of pest attacks and extreme weather that might occur.

#### 4. Conclusion

The SWOT analysis that has been carried out shows that there is a relationship between internal factors and external factors in the development of porang cultivation in Ruppia Village, Mappili District, Polewali Manda Regency, West Sulawesi Province. Strength factor (value = 1.6), weakness factor (value = 0.93), opportunity (value = 1.77), and threat (value = 0.62). Based on this, the factor that has the most influence on porang is the opportunity factor that farmers have in developing the agribusiness of porang crop farming

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