ECONOMIC ANALYSIS OF BAGEA SAGU CAKE BUSINESS IN KENDARI CITY, SOUTHEAST SULAWESI

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ABSTRACT

Sago is a local food commodity in Southeast Sulawesi. Sago flour is the raw material for making Bagea cake a typical snack product of Kendari City. This study aims to determine the level of profit in the business of processing sago flour into Bagea cake products in the home industry in the city of Kendari. This research was conducted in June 2021. Bagea sago cake processing technology includes roasting sago flour, mixing sago flour ingredients, printing, heating in the oven, packaging, and marketing. The data collection method used was through recording through a questionnaire which was then analyzed. The analysis method used is cost analysis, revenue analysis, and profit analysis. Based on the results of the analysis, it is known that the total cost used is Rp. 1,170,000, total revenue of Rp. 3,000,000 and the total profit is Rp. 1,736,459. Thus, the Bagea cake processing business is economically profitable to develop.

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I. INTRODUCTION

The emphasis of agricultural development must shift from agriculture to the industrial sector. Industries that process agricultural products from raw products into
processed products are industries (Herdhiansyah, 2012). The food diversification program is also one of the main pillars in realizing food security. Especially when referring to the concept of nutrition that there is no single type of food that is complete with nutrients in accordance with human needs for a healthy life. In order to encourage the realization of food consumption diversification as the basis for strengthening food security for improving the quality of human resources and preserving natural resources, Presidential Regulation no. 22 of 2009 on the policy of accelerating the diversification of food consumption based on local resources, under the coordination of the food security council (Ariani, 2014).

Sago is an important food source in Southeast Sulawesi. The area of sago land in Indonesia is around 1.5 million ha, which is spread over several areas such as Papua, Maluku, Sulawesi to Sumatra. Southeast Sulawesi Province is one of the regions with a large enough area of sago. In 2019, the area of sago in Southeast Sulawesi reached 4,578 ha with flour production of 2,651 tons. Sago flour is also used as a raw material for the cake industry because it contains low fat content but high calorific value (Abidin et al, 2020).

Sago is one of the largest flour-producing crops, mostly grown in Indonesia and Papua New Guinea. This plant has been used for generations as local food for various tribes in Indonesia. Sago is one type of local food ingredient that has developed into one of the culinary trends in Kendari City. The calorie content of sago starch per 100 grams is 353 calories of sago ((Abidin and Musadar, 2018)

Sago agroindustry is a profitable business if it is managed properly and has great potential to be developed as a mainstay commodity. Sago agroindustry in Kendari city is mostly cultivated by small-scale industries and households with the use of equipment and technology that is still simple. To obtain high income, it is necessary to have innovation and effective and efficient business management through the application of technology so that sago producers can always produce and develop sustainable businesses according to the desired expectations (Elida et al., 2020)

Indonesia has great potential to develop agro-industry, especially agro-industry in the plantation sector. One of the plantation sectors that has the potential to be developed in Indonesia is sago commodity. Sago commodities can be processed into various products that can increase the added value of sago, including sago noodles, sago rendang, sago crackers, and so on. Sago sugar is now present as the latest invention that adds variety to sago derivative products. Starch, which is extracted from the trunk of the sago tree into sago flour, offers considerable potential as a raw material for small, medium and large scale processing industries as well as a diversification of various processed products.

The alternative developmental strategies of the home industry sago in Kendari Southeast Sulawesi Province are maintain the tradition as specialty food, improve the marketing, use the appropriate technology in the processing of sago, capital support from government, cooperation with the government in conducting training development, competition with competitors to improve the quality of products, maintaining product quality and increasing capital (Asriani and Herdhiansyah D, 2016)

Bagea cake is a typical snack in the Kendari area of Southeast Sulawesi. This cake has a slightly crunchy texture and a sweet taste. The basic ingredient of this Bagea cake
is dry sago flour. Sago is a local food commodity that is very abundant in Southeast Sulawesi. The process of making Bagea cake from the basic ingredients of sago flour is processed using basic ingredients namely sago flour, eggs, sugar, vegetable oil and granulated sugar as well as other additives to create a delicious and healthy taste such as ginger using manual tools that still require energy. Humans like mixers and ovens.

II. LITERATURE REVIEW

Sago Commodity
Sago has the potential as an alternative food source because it contains a high carbohydrate content, in some areas in Indonesia people consume sago as a staple food ingredient other than rice (Manambangtua, 2020). Sago is an important food crop in Southeast Sulawesi. Sago stretches are spread over several regencies in Southeast Sulawesi, including Konawe, South Konawe, Kolaka, Bombana, North Konawe, South Kolaka and Kendari regencies (Suharno, 2010). In 2019 the area of sago in Southeast Sulawesi reached 4,578 ha with flour production of 2,651 tons, involving 9,685 farmer families spread over 10 districts/cities (Abidin et al., 2019).

Sago is a palm plant that has a pith and contains flour. Sago flour can be used as a raw material for the manufacture of food industries such as bread and other traditional foods and can also be used as an alternative energy material in the form of bioethanol (Ruhukail, 2012). The sago agro-industry business is a profitable business if it is managed properly and also has the potential to be developed, although currently there are still many sago agro-industry businesses whose business productivity is still low due to lack of management and management (Elida et al., 2020). In addition to management and management, the factors that cause the sago agroindustry to be less developed is the lack of information regarding economic analysis or profit.

Bagea is a cake made from dried sago flour that is ready to be consumed as a healthy snack. Bagea is a typical Southeast Sulawesi snack that is widely developed by home industry businesses in Kendari City.

Agroindustry Concept
Agroindustry comes from the words agricultural and industry which means an industry that uses agricultural commodity products as its main raw material. Agroindustry can also be defined as industrial activities that use agricultural products as raw materials that can be processed into products that have added economic value. Agroindustry is a broad sub-sector that includes upstream and downstream industries. The upstream industry produces agricultural facilities, while the downstream industry is an industry that processes agricultural products into raw materials or goods ready for consumption.

Production Cost Concept
Costs are all expenses or all expenses incurred by the company to produce goods or services that are ready for use by consumers. Costs in production consist of fixed costs and variable costs. Fixed costs are costs of using fixed production factors that are issued but do not affect the size of the amount of production, while variable costs are costs
whose size depends on the amount of production produced. Between Fixed Costs (FC) and Variable Costs (VC) if added up, the result is Total Cost (TC). Total Cost or Total Cost is the overall cost in the production process (Nuraini, 2015).

Revenue Concept
Revenue (Revenue) Revenue is the amount of value or sales proceeds received in running a business. Total income in farming is obtained from physical production multiplied by the production price. If circumstances allow, then farmers should process their own agricultural products to get good quality results, the price is relatively high and ultimately will also bring in greater total revenue (Soekartawi, 2006). Revenue is the value obtained from the sale of production. Total revenue which is usually symbolized TR (Total Revenue) is obtained from the product of the price multiplied by the amount of production produced. The usual price is symbolized by P (Price) while the amount of production is usually symbolized by Q (Quantity). TR is total revenue, total revenue increases when production prices increase (Nuraini, 2015).

Profit Concept
The profit obtained is very dependent on the amount of revenue received minus the costs incurred, the amount of revenue obtained is the result of multiplying the selling price of the product with the amount of production produced so that the high production with lower costs and prices will affect profits. Profits are usually given the symbol (Л) (Nuraini, 2015).

III. RESEARCH METHODS

Production Cost Analysis
Production costs are all economic expenses that must be incurred to produce an item. The following is the formula for calculating production costs (Soekartawi 2006):

\[ TC = TFC + TVC \]

Information:
TC = Total cost of sago cake agroindustry (Rp)
TFC = Total fixed costs of sago cake agroindustry (Rp)
TVC = Total variable cost of sago cake agroindustry (Rp)

Depreciation Analysis
Depreciation of tools and buildings is calculated during the production process and is valued in rupiah in one production process. The amount of depreciation of equipment and buildings is calculated using the straight-line method with the following formula (Suratiyah, 2015)

\[ P = B – SN \]

Information:
P = Depreciation value of equipment (Rp)
B = Purchase value of equipment (Rp/unit)
S = Residual value (20% of purchase value (Rp/unit)
N = Economic life (Years)
Revenue Analysis
Revenue is a resource that enters the company in one period. The revenue comes from the sale of goods or services. Total revenue is the total revenue received by producers from the sale of goods. To calculate the income of the sago sugar agroindustry, the formula according to (Soekartawi, 2006):

$$TR = P \times Q$$

Information :
TR = Total Revenue of sago cake agroindustry (Rp)
P = Price of sago cake products (Rp/unit)
Q = Total sales of sago cakes (Kg)

Profit Analysis
To calculate net income in the economic analysis of the sago sugar agro-industry business used the formula according to (Soekartawi 2006):

$$\Pi = TR - TC$$

Information :
\Pi = Net income of sago cake agroindustry (Rp)
TR = Total Revenue of sago cake agroindustry (Rp)
TC = Total cost of sago cake agroindustry sago cake (Kg)

Break Even Point (BEP) Analysis
According to (Wiryanta, 2000). BEP (Break Event Point) is the break-even point. From the BEP value, it can be seen at the level of production and at what price a business does not make a profit and does not experience a loss. There are two types of BEP calculations, namely the volume BEP and the production price BEP.

$$\text{BEP Volume Kg} = \frac{\text{Total Cost}}{\text{Selling Price}}$$

$$\text{BEP Price Rp/Kg} = \frac{\text{Total Cost}}{\text{Total Production}}$$

IV. RESULT AND DISCUSSION
Bagea sago cake processing process
Bagea sago cake agroindustry is classified as a home industry. This agro-industry business is still in small-scale production capacity. Home industry is a form of business managed by households with a relatively small business scale. Food Home Industry (IRTP) is an industry that processes food located in residential homes with manual to semi-automatic equipment (Sumampouw and , Laoh, O.E, Pangemanan, 2015).

Bagea, is a typical product from Eastern Indonesia, including Maluku, North Maluku, North Sulawesi and Southeast Sulawesi. The characteristics of this product are its oval or round shape and its texture is hard, but crunchy enough to chew. The shelf life of bagea products is quite long, approximately 10 months. Bagea is heavily modified by adding protein sources, including chopped walnuts, roasted peanuts, cashews and other ingredients for flavor. Making bagea this time is by adding a variant of the taste of herbal plants, namely ginger to add nutritional value as a healthy snack to maintain body immunity.
The process of making this Bagea Sahe cake begins with the first preparation of the ingredients (400 grams of sago flour, 2 eggs, 200 grams of sugar, 60-100 ml liquid margarine or oil and 50 grams of ginger powder). Mixing the ingredients, namely eggs and sugar, then stirring until smooth (mixing) add liquid margarine, then mix the sago flour until it forms a smooth dough, if the texture of the dough is soft then shaped according to taste and then baked in the oven with a hot temperature of 150°C for 30 minute. The process of making Bagea can be seen in Figure 2.

1. Fixed Cost

Fixed costs in the Bagea sago cake business include depreciation costs of equipment used during the production process. The equipment used in the production of Bagea cake processing consists of Oven, Mixer, Stove, Gas Cylinder, Basin, Pan,
Brush, Spatula, Filter, Scissors and Container. Based on the analysis of fixed costs, the depreciation cost of equipment in the Bagea cake business is Rp. 93,541.67 can be seen in table 1.

Table 1. Fixed Cost of Bagea Products

<table>
<thead>
<tr>
<th>No</th>
<th>Type of equipment</th>
<th>Price (Rp)</th>
<th>Economic age (Years)</th>
<th>Depreciation Value (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Oven</td>
<td>1,500,000</td>
<td>4</td>
<td>3,125,000</td>
</tr>
<tr>
<td>2</td>
<td>Mixer</td>
<td>450,000</td>
<td>4</td>
<td>9,375,000</td>
</tr>
<tr>
<td>3</td>
<td>Stove</td>
<td>500,000</td>
<td>4</td>
<td>10,416,67</td>
</tr>
<tr>
<td>4</td>
<td>Gas cylinders</td>
<td>200,000</td>
<td>4</td>
<td>4,166,67</td>
</tr>
<tr>
<td>5</td>
<td>Basin (5)</td>
<td>250,000</td>
<td>3</td>
<td>6,944,44</td>
</tr>
<tr>
<td>6</td>
<td>Precipitation</td>
<td>250,000</td>
<td>4</td>
<td>5,208,33</td>
</tr>
<tr>
<td>7</td>
<td>Frying Pan</td>
<td>200,000</td>
<td>3</td>
<td>5,555,56</td>
</tr>
<tr>
<td>8</td>
<td>Brush (3)</td>
<td>60,000</td>
<td>4</td>
<td>1,250,00</td>
</tr>
<tr>
<td>9</td>
<td>Spatulas (3)</td>
<td>90,000</td>
<td>2</td>
<td>3,750,00</td>
</tr>
<tr>
<td>10</td>
<td>Filter (2)</td>
<td>50,000</td>
<td>2</td>
<td>2,083,33</td>
</tr>
<tr>
<td>11</td>
<td>Scissors</td>
<td>25,000</td>
<td>2</td>
<td>1,041,67</td>
</tr>
<tr>
<td>12</td>
<td>Receptacle (2)</td>
<td>300,000</td>
<td>2</td>
<td>12,500,00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td><strong>93,541,67</strong></td>
</tr>
</tbody>
</table>

Source: Primary data processed, 2021

2. Variable Costs

Variable costs in Bagea sago business include materials used in sago flour including sago flour, refined sugar, egg yolks, vegetable oil, ginger powder and packaging. Based on the results of the analysis of the variable costs of the Bagea cake business, it was obtained Rp. 1,170,000 can be seen in table 2.

Table 2. Variable Costs of Bagea Products

<table>
<thead>
<tr>
<th>No</th>
<th>Type of Material</th>
<th>Total (Kg)</th>
<th>Unit price (Rp)</th>
<th>Total Value (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sago flour</td>
<td>1000 gram</td>
<td>15,000</td>
<td>15,000</td>
</tr>
<tr>
<td>2</td>
<td>Sugar</td>
<td>500 gram</td>
<td>8,000</td>
<td>8,000</td>
</tr>
<tr>
<td>3</td>
<td>Egg yolk</td>
<td>2 butir</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>4</td>
<td>Vegetable oil</td>
<td>100 ml</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>5</td>
<td>Ginger Powder</td>
<td>100 gram</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>6</td>
<td>Packaging</td>
<td>1 Pcs</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td></td>
<td>Total cost</td>
<td></td>
<td></td>
<td><strong>39,000</strong></td>
</tr>
<tr>
<td></td>
<td>Total Cost (30Kg)</td>
<td></td>
<td></td>
<td><strong>1,170,000</strong></td>
</tr>
</tbody>
</table>

Source: Primary data processed, 2021
3. **Bagea Product Revenue**

Based on the results of the analysis of the amount of revenue from Bagea products, it was obtained Rp. 3,000,000 is the result of multiplying the amount of production with the price can be seen in table 3.

<table>
<thead>
<tr>
<th>Production (Kg)</th>
<th>Price (Rp)</th>
<th>Revenue (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Kg</td>
<td>100.000</td>
<td>100.000</td>
</tr>
<tr>
<td>30 Kg</td>
<td>100.000</td>
<td>3,000,000</td>
</tr>
</tbody>
</table>

Source: Primary data processed, 2021

4. **Profit Analysis**

Based on the results of the analysis of the amount of income from bagea cake products obtained by Rp. 1,233,451 obtained from the total revenue minus the total cost can be seen in table 4.

<table>
<thead>
<tr>
<th>Revenue (Rp)</th>
<th>Total Cost / 30 Kg (Rp)</th>
<th>Profit (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,000,000</td>
<td>1,263,541</td>
<td>1,736,459</td>
</tr>
</tbody>
</table>

Source: Primary data processed, 2021

V. **CONCLUSION**

Based on the results of the calculation of the economic analysis of the Bagea sago cake business in the city of Kendari, it is known that the total cost incurred is Rp. 1,170,000, the amount of revenue generated is Rp. 3,000,000, and the total profit earned is Rp. 1,736,459. Thus, the Bagea cake processing business is economically profitable to develop. The recommendation from the research results is that the government should pay more attention to the development of the sago agroindustry in order to support local food security policies in Southeast Sulawesi.

VI. **REFERENCE**


