RETURN COST AND VALUE ADDED ANALYSIS OF SWEET POTATO PROCESSING (Case Study: Pasar Bengkel Village, Perbaungan District, Serdang Bedagai Regency)

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Abstract
The purpose of this study was to identify how much income was obtained from processing sweet potatoes into chips and chicken claws and to identify how much value added was obtained from the chips and chicken claw business in the research area. The analytical method used is the method of income analysis with the method of calculating the Cost of Return and the method of value added analysis using the Hayami calculation method. The conclusion from the research results that the value obtained from processing sweet potatoes into chips is Rp. 4,247,914,-/Month, while the added value of the sweet potato processing industry into chips is Rp. 1,167.37, with a value added ratio of 24.39% per month is relatively low. While the average income of chicken claw business in Delimada Village, Perbaungan District, Serdang Bedagai Regency is Rp. 4,436,460,-/month while the added value of the sweet potato processing industry into chicken claw is Rp. 714.75, with a value added ratio of 16.42% per month is relatively low. The obstacle faced by the sweet potato processing industry in Pasar Bengkel Village, Perbaungan District, Serdang Bedagai Regency is the lack of availability of raw materials and labor.

Keywords: Sweet Potatoes, Income and Value Added.

1. Introduction

The agricultural sector has a very large role in the country's economic growth, especially countries with an agrarian pattern such as Indonesia. Economic development in Indonesia focuses on agriculture and agriculture-based industry or commonly called agro-industry cannot be separated from agribusiness development as a whole. In the agribusiness system, Agroindustry is a system that has considerable potential to be developed and has a strategic role for the interests of economic growth, increasing employment opportunities, and increasing exports (Soekartawi, 1993).

The agribusiness system consists of input subsystems (upstream agro-industry), farming (agriculture), output systems (downstream agro-industry), marketing and support. Thus, the development of agro-industry cannot be separated from the development of agribusiness as a whole. The development of agro-industry will be able to increase production, prices of agricultural products, farmers' income, and produce agricultural added value (Masyhuri, 1994).

Some of the strategic values offered by the agro-industrial sector are seen as a bridge between the agricultural sector in upstream activities and the industrial sector in the downstream sector. The next step is the development of appropriate and good agro-industry, which is expected to be increased in terms of the number of workers, farmers' income, export volume and foreign exchange earned, market share both domestically and internationally,
exchange rates for agricultural products, and supply of industrial raw materials (Surahman, 2007).

The amount of added value of an agricultural product because the processing process is a reduction in the cost of raw materials and other inputs to the value of the resulting product, excluding labor. It can be said that added value is a description of the rewards for labor, capital and management (Sugiyono, 2004).

Sweet Potato is an agricultural commodity with bright prospects. Sweet potato products are not only potential as a source of carbohydrates in food preparation for most of the world's population, but are also multipurpose to be projected as raw materials for various industrial materials and animal feed. The image of sweet potato can be improved into a non-oil and gas export commodity to the international market.

The transformation of the agricultural sector into the industrial sector for a country like Indonesia is unavoidable. Because Indonesia is moving from an agrarian country to a developed industrial country, the role of the agricultural sector is still coloring progress in the industrial sector, therefore a balanced economic structure is needed between a strong industrial sector and strong agricultural support (Mangunwidjaja and Illah, 2005).

In accordance with the source and development of the concept of core competence (whether in the form of products, services, or commodities) it is necessary to pay attention to the criteria relevant to the need to increase competitiveness, namely uniqueness (and difficult to imitate), the ability to provide more benefits, or the ability to provide benefits at a sacrifice, which is more efficient. In the regional context, the selection of core competencies should take into account regional conditions while still paying attention to competitive criteria such as: high added value, unique characteristics, linkages and opportunities to compete in markets outside the region (even internationally). In other words, the selection and determination of core competencies should have a big impact in stimulating the regional economy (Wahyudin, 2007).

2. Research methods

The determination of the research area was carried out purposively (deliberately), namely in Pasar Bengkel Village, Serdang Bedagai Regency. This area was chosen because it has a business in making chips and chicken claws made from sweet potatoes.

The method of determining the sample is carried out by the census method, namely comprehensive data recording of the research object that is in a population. After conducting a pre-survey, as for the total number of samples that will be used as research as many as 19 business units that cultivate sweet potato-based chips and claws, namely in the Village Workshop Market, Perbaungan District, Serdang Bedagai Regency.
The data collected in the study are primary data and secondary data. Primary data were obtained directly through interviews with respondents using a list of questions (questionnaires) that were made beforehand. While secondary data is complementary data obtained from related agencies and institutions such as the Central Bureau of Statistics of Serdang Bedagai Regency as well as literature related to this research.

To solve the problem (1) is analyzed by the formula:

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I = TR - TC
\]

Information:
- \( I \) = Income (income) (Rp)
- \( TR \) = Total Revenue (total revenue) (Rp)
- \( TC \) = Total cost (total cost) (Rp) (Soekartawi, 1995).

To solve problem (2), it is analyzed using Hayami's value added calculation method.

3. Results and Discussion

Added Value of Sweet Potato Processing Business

The added value of processing chips and chicken claws in the study area, was calculated using the hayami calculation model. The calculation of added value is carried out by looking at the various components that influence the calculation, including the contribution of other inputs and the price of raw materials. In addition to added value, the hayami calculation model also analyzes labor income, entrepreneur profits, and can see the margin obtained from processing the chips and chicken claws. In detail, the calculation of added value using the hayami method based on data obtained from the research area can be seen in Table 1 below:

Table 1. Added Value of Processed Sweet Potato Chips and Chicken Claws

| Variabel | Nilai Keripik | Cakar Ayam |
|----------|---------------|------------|
| 1. Output (Kg) | 1.077,6 | 1.084,4 |
| 2. Input (Kg) | 787,9 | 872,4 |
| 3. Tenaga Kerja (HKO) | 2,28 | 6,02 |
The results of this value added analysis can also show the margin of raw material from sweet potato to sweet potato chips which is distributed to employee benefits, other input contributions, and company profits. This margin is the difference between the product value and the price of sweet potato raw materials per kilogram, each processing sweet potato into sweet potato chips obtained a margin of Rp. 1,284.5 which is distributed for each labor factor, namely labor income of 0.15%. Then the contribution of other inputs is 9.119%, and the company’s profit is 90.744%. The added value results obtained from processing sweet potatoes into chips show 10 samples or entrepreneurs in Pasar Bengkel Village, Perbaungan District, Serdang Bedagai Regency.

The results of the value added analysis show that the margin of raw material from sweet potatoes to be used as chicken claws is distributed to employee benefits, other input contributions, and company profits. This margin is the difference between the value of the product and the price of sweet potato raw materials per kilogram. For each processing of sweet potatoes to make chicken claws, a margin of Rp. 850.5 which is distributed for each labor factor, namely labor income of 0.657%, then for other input contributions of 15.961% and also for company profits, which is 83.381%. The added value results obtained from processing sweet potatoes into chicken claws show 9 samples or entrepreneurs in Deli Muda Village, Perbaungan District, Serdang Bedagai Regency.

Based on the explanation above, it is known that how to compare the added value and the comparison of benefits as well as the benefits obtained by the workforce obtained from the
manufacture of processed products of chips and chicken claws in the research area. Thus, the added value obtained after sweet potatoes are processed into chips has a ratio of 24.399% with a profit rate of 99.84%, while the added value obtained after sweet potatoes are processed into chicken claws has a ratio of 16.429% with a profit rate of 99.218%. For the manufacture of chips has an added value of Rp. 1,167.37 per production process, while in the manufacture of chicken claw has an added value of Rp. 714.75 per production process. And the profit in making chips is Rp. 1165,61 per production process, while for making chicken claws the profit is Rp. 709,161 per production process.

4. Conclusion

The added value of the sweet potato processing industry into chips is Rp. 1,167.37, with a percentage added value ratio of 24.39% every month, while the added value of the sweet potato processing industry into chicken claw is Rp. 714.75, with a percentage added value ratio of 16.42% every month.

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