

Business and Marketing Analysis of Coconut Sugar Agro-Industry Crafters in Ciracap District, Sukabumi Regency

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ABSTRACT

This study aims to analyze the income of coconut sugar agroindustry craftsmen and determine the marketing efficiency of coconut sugar in Ciracap District, Sukabumi Regency, West Java Province. The use of business analysis and marketing analysis is the method chosen to find out how much income is earned by craftsmen and how much marketing efficiency has been carried out on the coconut sugar marketing chain in this area. Business analysis can be seen through the calculation of cost analysis, the results of the calculation of revenue, and the amount of income. Marketing analysis is obtained by looking at the efficiency of marketing channels, calculating marketing margins, and looking for the farmer's share value so that it is obtained how efficient the marketing flow has been by coconut sugar marketing actors. From the results of research that has been done, it can be seen that the average production cost of coconut sugar craftsmen is Rp. 4. 692,194 per month, the average income of the craftsmen Rp. 6,754,762 per month and the average monthly income of crafters is Rp.2,062,567 so that the R/C ratio obtained is 1.43. There are three patterns of coconut sugar marketing channels, namely marketing channel pattern 1, marketing channel pattern 2, and marketing channel pattern 3. Marketing channel pattern 3 is the most efficient marketing channel pattern in the coconut sugar marketing system in the research area. The total marketing margin generated in the pattern of marketing channels 1 and 2 is Rp. 6,054, and in channel 3 is Rp. 8,054, with farmer's share of 76.92%, 84.61%, and 66.67% for marketing channel patterns 1,2, and 3.

Keywords : Business Analysis, Income of Agroindustry Craftsmen, Farmer's Shere

INTRODUCTION

Coconut sugar is one of the coconut agro-industry products. Agro-industry can be defined as a processing industry with the main raw materials derived from agricultural products. Agroindustry is one branch of industry that is directly related to agriculture. (Soekartawi, 2005).

The coconut sugar agro-industry, which currently has very good prospects, is expected to be able to sustain and increase the income of household industry players so that people's welfare continues to increase (Mugiono, et al., 2014). Apart from that, the potential for developing coconut sugar agro-industry is very large considering that coconut sugar products are products that are always needed in society, whether they are consumed directly or in the form of derivative products (Tiara, et al., 2016). With the development of coconut sugar agro-industry, it is hoped that coconut sugar craftsmen can increase their income and can open new jobs so that the original income of coconut sugar producing areas can increase. (Budiarto, 2010).

West Java Province has many city districts that are coconut sugar producers that support the needs of coconut sugar in Indonesia. Coconut sugar is a superior product in most areas in West Java and supports local revenue. the use of coconut sugar in various products, both as a seasoning for cooking and as a natural sweetener in various beverage products. (Plantation Office of West Java Province 2014). Sukabumi district is one of the districts in West Java that has quite a lot of coconut crafters and has become one of the suppliers of coconut sugar to various large companies in Indonesia.

Ciracap sub-district is one of the sub-districts selected for expansion of agricultural land area for smallholder coconut plantations. These smallholder coconut plantations will be the source of increased coconut sugar production in Sukabumi District (Sukabumi District Agriculture Office). Ciracap sub-district was chosen because there are 390 ha of smallholder coconut plantations out of 12,342 ha of plantations from 45 sub-districts in Sukabumi district.

In Sukabumi District, almost all coconut sugar agro-industries are household scale with less than five workers who are generally male family workers starting from the tapping process, processing, to the packaging process which all use traditional tools (Supardi, et al, 2016).

Coconut sugar collectors directly take coconut sugar that has been packaged at the sugar processing site so that this agro-industry does not incur marketing costs. Collectors are only informed by crafters regarding the amount of sugar production that has been produced. Due to the absence of an institution established to manage coconut sugar production from collectors and the dependence of crafters on capital from collectors, coconut sugar crafters do not sell their production directly to the market or companies (Supardi, et al., 2016).

Based on several studies on income, it shows that capital and labor affect income (Usman and Fifuliani, 2018). Meanwhile, according to Rizal, et al (2017), income depends on the amount of production, the selling price of the product at that time, the amount of labor costs incurred, the amount of raw material costs incurred, as well as the cost of other additional materials and fuel costs. Yuroh et al (2018) said that the amount of income of coconut sugar agroindustry crafters depends on the amount of production, the amount of capital spent, how long education is taken, the amount of credit, and counseling.

The results of previous studies show that coconut sugar agro-industry has good financial feasibility. While the type of marketing channel that is most efficient differs from one region to another, it is influenced by the marketing system carried out at the research site.

From the background of these research results, I feel that it is very necessary to conduct research on the behavior of coconut sugar trading, the business feasibility of coconut sugar agro-industry crafters, and the marketing system of coconut sugar agro-industry crafters in Ciracap District, Sukabumi Regency. This research is expected to contribute to agro-industry activities in the area, especially coconut sugar agro-industry.

MATERIALS AND METHODS

The research I conducted used a survey research technique where samples were taken from a predetermined population using a tool in the form of a questionnaire in the data collection method (Singarimbun and Effendi, 1995).

Ciracap sub-district was purposively selected using a stratified proportional random sampling technique, with the consideration that Ciracap sub-district has the largest number of coconut sugar artisans in Sukabumi district, seen from a land area of 390 ha out of a total of 12,345 ha. According to Sugiyono (2009). Proportionate stratified random sampling, defined as the collection of random samples from members of the population and stratified proportionally, this sampling is done if the population members are heterogeneous (not similar). Proportionate stratified random sampling is done by making layers (strata), then from each layer randomly selected a number of subjects. The number of subjects from each layer (stratum) is the research sample. (Marina, I., dkk. 2024).

The slovin formula was used in determining the number of samples in this study so that 42 producer respondents were obtained. The snowball sampling method was used for picking marketing channel respondents. Systematic business analysis will be used in the analysis method. Total cost, revenue, and profit are formulated as follows:

$$TC = TFC + TVC$$

With the information TC is the total cost or total cost in production which is the sum of TFC (total fixed cost) or fixed cost and TVC (Total Variable Cost) or non-fixed cost. Total cost, fixed cost, and non-fixed cost are expressed in rupiah.

$$TR = P \times Q$$

With the information that TR is total revenue or revenue which is the multiplication of Q or the amount of production (Kg) with P or the selling price of coconut sugar (Rp). Revenue is expressed in rupiah per kilogram (Rp/Kg)

$$\pi = TR - TC$$

With π is the profit earned by coconut sugar crafters which is the difference between TR as a component of business revenue, and TC or total costs. Profit, business revenue, and total costs are expressed in units of Rupiah (Rp):

$$R/C = \text{Revenue (R)}/\text{Cost (C)}$$

Where R is revenue in rupiah units and C is cost in rupiah units. Criteria for assessing the success of the business can be seen from the ratio, $R / C > 1$, showing that the coconut sugar processing business is profitable, $R / C < 1$ indicates that the coconut sugar processing business is not profitable, and $R / C = 1$, then the coconut sugar processing business is in a state of break-even.

Analysis of marketing pattern channels using descriptive method analysis.

Marketing margins are obtained from calculations using the formula

$$MP = Pr - Pf$$

Where MP is the marketing margin, with Pr is the price at the consumer level in rupiah units and Pf is the crafter level price in rupiah units.

$$Fs = Pf / Pr \times 100\%$$

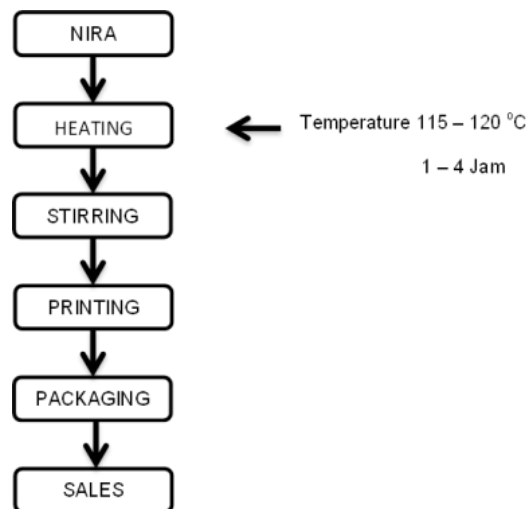
With Fs is the Farmer's share or the share of the price obtained by the crafter (%), Pf is the selling price at the crafter level, and Pr is the price at the consumer level, with the provisions, if the Marketing Margin > Farmer's share, it is said to be profitable on the trader's side, while if the Farmer's share > Marketing Margin, it is said to be profitable on the crafter's side. (Roswinna, dkk. (2024).

RESULTS AND DISCUSSION

Landscape of coconut sugar agro-industry in Surade Sub-district, Sukabumi District

Coconut sugar production in Ciracap Sub-district, Sukabumi District is still traditionally carried out by artisans at the household scale. Production is carried out every day in both rainy and hot weather. It takes at least 12 hours to produce the sugar, starting from climbing coconut trees to get the sap, collecting the sap into containers, cooking, molding, and waiting for the sugar to dry for packaging.

The crafter collects and collects the sap in the morning into a bucket, after collecting it from all the tapped trees, cooking is immediately carried out on the wait using a very large pan. The cooking takes between 1 and 4 hours depending on the size of the fire and the amount of nira being cooked. During the cooking process, the nira is continuously stirred so that it cooks evenly and avoids the evaporation of nira which sometimes comes out in the form of foam. Once in a while, kecrug is used to prevent the nira foam from overflowing. After the nira is cooked enough and ready to be molded, molding is done. The duration of molding lasts between 30 - 60 minutes until the sugar hardens and cools, which is then ready for packaging. The flow of coconut sugar production can be seen in the chart below.



picture 1: Flow of coconut sugar production

From the survey results, all coconut sugar production workers are male because this work is a job that requires a lot of energy and stamina. The average crafter has to climb 60 coconut trees twice in the morning and in the afternoon, which is very unlikely to be done by women. The education level of the crafters is mostly elementary school graduates (79%), the rest are junior high school graduates (14%) and elementary school graduates (7%).

The coconut sugar production process is carried out in a traditional way using manual production equipment. The tools used are stoves, pans, molds, sap reservoirs, stirrers, dippers, tapping

knives and others. This equipment is usually provided by collectors by providing goods in advance which will be paid from the sale of sugar to them.

The practice of taking money or goods in advance to collectors applies to almost the entire process of selling sugar products produced by coconut sugar craftsmen. This way of selling results in the selling price of the crafters being determined by the collector traders. Crafters cannot choose to seek a higher price comparison.

Costs

Production costs consist of fixed costs and variable costs. Fixed costs are not affected by the amount of production produced, while variable costs are affected by the amount of production obtained. Fixed costs of coconut sugar processing include the cost of renting coconut trees and the cost of depreciation of the tools used. While non-fixed costs include the cost of firewood, preservatives, packaging, and labor.

Table 1. Costs, revenue and income of coconut sugar agro-industry in Ciracap sub-district, Sukabumi district per month.

No	Description	Amount
1	<i>Revenue</i>	
	Production (Kg)	676
	Selling Price (Rp)	10.000
	Total Revenue/TR (Rp)	6.754.762
2	<i>Production Costs</i>	
	A. Fixed Cost/TFC (Rp)	
	Tree Rent (Rp)	600.000
	Depreciation Rp)	134.314
	Total Fixed Cost	734.314
	B. Non-Fixed Costs /TVC (Rp)	
	Firewood	1.247.619
	Preservative	502.048
	Packaging	54.643
	Labor	2.153.571
	Total Variable Costs /TVC (Rp)	3.957.881
	Total Production Cost/TC (Rp)	4.692.194
3	Advantage /π (Rp)	2.062.567

Source: Primary Data (Processed, 2022)

Table 1 shows that the average production of coconut sugar produced by crafters each month is 676 kg taken from an average of 60 tapped trees. The coconut sugar produced is then sold to collectors at an average price of IDR 10,000/kg.

The average amount of production costs incurred by coconut sugar crafters is Rp. 4,692,194 per month. The largest cost expenditure is in variable costs of Rp. 3,957,881 per month, while fixed cost expenditures amounted to Rp. 734,314 per month. Variable costs consist of fuel purchases, preservatives, packaging and labor wages. Variable costs appear to be higher than fixed costs due to the increasing prices of current production support.

Revenue and Income

Revenue is the multiplication between the amount of production (kg) and the selling price of the product produced (Rp). Meanwhile, income can be obtained from the difference between revenue (Rp) and total production costs (Rp).

At the time of research sampling, the selling price of coconut sugar was Rp. 10,000 per kilogram. Table 1 shows the average production of coconut sugar is 676 kg per month. From the amount of production, we can know the amount of the average income of the crafters per month is Rp. 6,754,762. By knowing the amount of revenue with the average total costs incurred by crafters of Rp. 4,692,194, the average monthly income of crafters is Rp. 2,062,567.

R/C Ratio

The average R/C ratio of coconut sugar crafters in Ciracap sub-district is 1.43, so the coconut sugar agro-industry in Ciracap sub-district is profitable for crafters, so this agro-industry business is worth developing as one of the businesses to improve the community's economy.

Marketing Analysis

The marketing channel is the marketing process that a product will go through so that the product reaches consumers. The coconut sugar marketing channel in Ciracap sub-district, Sukabumi Regency, goes through several actors in the trade, starting from collectors, large collectors, market traders, small traders and large traders.

This research resulted in three marketing patterns in the marketing channel as follows:

Marketing channel 1

Crafters - small collectors - large collectors - company

In marketing channel 1, coconut sugar crafters sell packaged coconut sugar to the collectors they subscribe to every day or once a week by delivering it directly to the collectors or more often the collectors come to the crafters to the production site. Small collectors then collect coconut sugar from many crafters and sell it to large collectors. Large collectors collect sugar from several small collectors and then distribute it to large companies that will process sugar into raw materials for various products.

In this trading channel, the price given to the crafters is relatively lower because before reaching the final consumer, it must go through several collectors. This is not unnoticed by the crafters, but they still carry out such marketing patterns because they are bound by the money that has been given in advance by small collectors.

Channel 2

Crafters - big collectors - company

In marketing channel 2, crafters directly sell their products to large collectors. The big collectors then distribute the products to companies, both large and small companies. In this marketing channel, crafters can get a higher selling price than in marketing channel 1, but crafters have to deliver their products to large collectors so they will incur more transportation costs.

Channel 3

Crafters - small collectors - market traders - consumers

Marketing channel 3 is a small part of the overall coconut sugar marketing process in Ciracap sub-district, Sukabumi district. Crafters sell coconut sugar to small collectors, small collectors sell it back to retail traders in the market which then reaches consumers. The price given by collectors to market traders is the same as the price given to the company. (Marina, I., & Dinar, D. (2024).

Table 2. Analysis of marketing margin, farmer's share, and marketing efficiency of coconut sugar in Ciracap sub-district, Sukabumi district.

No	Marketing Actors	Channel 1		Cannel 2		Channel 3	
		Amount (Rp/Kg)	Share (%)	Amount (Rp/Kg)	Share (%)	Amount (Rp/Kg)	Share (%)
1	Crafters		76,92		84,61		66,67
	Production Cost	6.946		6.946		6.946	
	Selling Price	10.000		11.000		10.000	
	Marjin	3.054		4.054		3.054	
2	Small collectors						
	Purchase price	10.000				10.000	
	Selling price	11.500				13.000	
	Marjin	1.500				3.000	
3	Large Collectors						
	Purchase price	11.500		11.000			
	Selling price	13.000		13.000			
	Marjin	1.500		2.000			
4	Company						
	Purchase price	13.000		13.000			
	Selling price						
	Marjin						
5	Market Trader						
	Purchase price					13.000	
	Selling price					15.000	
	Marjin					2.000	

Margin	6.054	6.054	8.054
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Marketing Margin Analysis

Marketing margin analysis is the difference between the selling price and the purchase price at each level in a particular marketing channel. This analysis serves to determine the price differences in each marketing channel.

Table 2 shows that the marketing margin value for each channel pattern is different. This difference is influenced by the length of the marketing channel. In marketing channel pattern 1 and marketing channel 2, the marketing margin is Rp.6,054, and in marketing channel pattern 3 it is Rp. 8,054. Marketing channel patterns 1 and 2 have the same margin because both are distributed to the company through large collectors whose final distribution to large companies at the same price so that the difference in margins is in the margins obtained by farmers and the margins obtained by collectors. Whereas in marketing channel 3 there is a significant difference because the final marketing goes directly to consumers who have a much higher selling price than to large companies.

Judging from the value of the margin obtained, marketing channel 3 has a very large margin, but the weakness in this marketing channel is that the market needs are relatively small compared to marketing channels 1 and 2.

Farmer's Shere Analysis

From table 2, the value of farmer's share in marketing channel pattern 1 is 76.92%, marketing channel pattern 2 is 84.61%, and marketing channel pattern 3 is 66.67%. From these data it can be seen that the most efficient marketing channel pattern is in marketing channel 2 while the least efficient marketing channel pattern is marketing channel pattern 3.

CONCLUSIONS

Based on the results of coconut sugar produced by crafters on average 676 kg per month. From the amount of production we can find out the amount of the average income of the crafters per month is Rp. 6,754,762. By knowing the amount of revenue and the average total costs incurred by crafters of Rp. 4,692,194, the average income of crafters each month is Rp. 2,062,567. from these data results in an R / C ratio of 1.43 so that this agroindustry business has the potential to be developed as a support for the economy of farmers in Ciracap District..

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