

Palm Oil Marketing Model through Performance Analysis Approach in Simalungun Regency

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ABSTRACT. The one of indicator that can demonstrate market performance is profit gained on industry. Market performance analysis can be seen by calculating marketing margin and farmer share. The length of existing marketing channels may not necessarily indicate that the marketing performance is inefficient. If the marketing chain is long and able to increase consumer satisfaction then it can be said that the marketing system is efficient.

Some problems on marketing of palm oil commodity in Simalungun Regency are: producer's farmers are generally small farmers who have weak bargaining power, not much know the market situation and price certainty. The market in palm oil commodities are still dominated by large farmers and other market participants who have a network or links with the consumer makes the low of farmer share.

The purpose of this research is to determine the marketing strategy of palm oil using marketing performance approach to: (a) Analyze the margin and farmer share, to know the performance of palm oil industry in Simalungun Regency. (b) Analyze the relationship between structure, conduct and performance of the palm oil industry in Simalungun Regency.

The analytical method used in this research is marketing channel analysis and analysis of market structure that seen from market concentration and barrier in and out of market, analysis of market behavior seen from marketing function that is exchange function, physical function and facility function. Market performance analysis is seen from farmer share and marketing margin.

1. Introduction

Simalungun Regency is an area of palm oil plantations belonging to the people that have an area of 1025.91 ha of palm oil plantations (BPS, 2015) [1]. With this area the problems that are often present in palm oil marketing. The form of a monopoly or oligopoly market is considered to be detrimental to farmers. This loss can be seen from the low share of farmers. Evidence of the share is assessed from the difference between the price of farmers and factories reaching Rp. 400 / kg. The second problem lies in the limitations of capital. Farmers have low capital so that the marketing function carried out is an exchange function.

Fluctuations in the price of agricultural products are also a major problem in the marketing system. Farmers often suffer losses due to price fluctuations. Price fluctuations occur because palm oil production is only concentrated in certain regions, inappropriate production patterns, inadequate facilities, and the length of the marketing chain of agricultural products (Sinaga et al., 2014) [2].

Industrial structure, conduct and performance are variables that are interconnected with each other and these three variables will influence each other. The Structure approach, Conduct, Performance (SCP) is able to explain how the steps should be taken, because knowing the structure, behavior, and market performance can be known the most appropriate marketing policy strategy to do.



2. METHODS AND MATERIALS

Market Performance Analysis

Market performance (market performance) is a condition as a result of market structure and behavior in everyday reality as indicated by prices, costs, and production volumes that provide an assessment of whether or not a marketing system is good (Dahl and Hammond 1977) [3]. Market performance analysis, namely margin and farmer share (Sinaga 2014) [4]. This calculation is done to see the difference in prices paid by consumers with prices received by farmers. Marketing margins according to Robinson (1990) [5] provide two alternatives, namely the difference in prices paid by consumers with prices received by producers and the price of a collection of marketing services as a result of the demand and supply of marketing services. Asmarantaka (2012) [6] explains the marketing margin concept is the difference in prices at the producer farmer level with prices at the final consumer level or at the retail level. Margin is the overall approach of the marketing system of agricultural products, starting from the farmer level as the primary producer until the product is in the hands of the end consumer so that it is often said to be the Total Marketing Margin (MT).

Margin can provide an overview of the activities carried out by business actors in the marketing system, namely a collection of remuneration for productive activities (adding or creating use value) in the flow of agribusiness products from the farmer to the final consumer. Margin can also show value added in agribusiness products both at the farmer (producer) level to the final consumer. Not only used as an indicator of the efficiency of the marketing system, margins can also evaluate marketing functions that occur and customer satisfaction or end products must be equal.

Sitorus (2012) [7] measured the production function and structure, conduct and performance (profitability) of the truck industry that transported agricultural commodities and frozen food products in the United States in the period 1994-2003. To achieve these objectives, estimation of the stochastic frontier production function and structure, behavior and performance (SCP) models is measured by measuring output and efficiency as endogenous variables with Battese and Coelli specifications to test the effects of several variables, including risk, market share concentration and material expenditure fuel to measure business profitability in the form of efficiency. The results of the analysis show that the average distance, load average and market concentration variables significantly affect the efficiency of companies with 2-8 years for each company. The production function variable positively affects output, with a few exceptions.

The structure, conduct and performance approach was also carried out by Sayaka (2008) [8] in the corn seed industry in East Java Province. The results showed that the market structure of corn seed producers in East Java Province was very oligopolistic. There are 3 (three) multinational companies that dominate the industry. The corn seed producer gets a high profit / profit rate even though the risk of unsold products is quite high. Wholesalers buy and sell corn seeds at a low price level and get higher profits compared to retail traders. In general, the market for corn seeds in East Java is less efficient.

Teka (2009) [9] conducted an analysis to measure the efficiency of the market chain of papaya, garlic and tomatoes in the Alamata District, Ethiopia with a structure, behavior and performance performance (SCP) approach. The analysis shows that potential profits are under imperfect marketing conditions. Market behavior is characterized by unethical practices of

fraudulent collusion and information that cause uncompetitive market behavior even though the calculation of market concentration ratios does not indicate the behavior of the oligopsonist market 24.56%. For this reason, some measurement corrections are requested by the government and other institutions such as cooperatives.

One indicator that can show market performance is the profit gained in an industry. Market performance analysis can be seen by calculating marketing margins and farmer shares. The length of the existing marketing channels does not necessarily indicate that the marketing performance is inefficient. If the chain of advice is long and is able to increase customer satisfaction, it can be said that the marketing system is efficient.

a. Revenue Analysis

Total revenue is the sum of all company revenues from the sale of a number of products (goods produced). The way to calculate total revenue can be done by multiplying the number of products with the selling price of the product and the fresh fruit of Natalia's A.J. research (2016) [10]. Formulated as follows:

$$TR = Y \times Py \dots\dots\dots (1)$$

TR = Total company revenue (Rp)

Y = Number of products produced (Kg)

Py = Selling price of fresh fruit bunches (Rp).

b. Profit Analysis

The total cost component consists of variable costs (variable costs) and fixed costs. Variable costs are costs that totally change in proportion to changes in activity, in other words variable costs are costs whose magnitude is influenced by the amount of production produced, but variable costs per unit are constant. The profit formula is as follows;

$$\pi = TR - TC \dots\dots\dots (2)$$

π = Farmer's profit (Rp.)

TR = Total Revenue (Rp)

TC = Total cost (total cost) (Rp).

Labor cost formula, namely;

$$(P \times Q) / O \dots\dots\dots (3)$$

P = Price of wages (Rp)

Q = Amount of production (kg)

O = Amount of labor wages (people)

The total cost formula is;

$$TC = TFC + TVC \dots\dots\dots (4)$$

TC: Total Cost (Total Cost) (Rp)

TFC: Total Fixed Cost (Total Fixed Cost) (Rp)

TVC: Total Variable Cost (Total Variable Cost) (Rp)

Marketing Margin

Asmarantaka (2012) [11] explains the definition of margin as a reflection of business activities or marketing functions carried out in the marketing system. In addition, margin is a collection of remuneration due to productive activities (adding or creating use value) in the flow of agribusiness products from farmers to the end consumers.

Margin can show value added from farmers until it reaches consumers. This margin analysis can be used to analyze marketing systems from a macro perspective (product marketing from farmers to consumers). The formula for marketing margins can be seen as follows:

$$MT = Pr - Pf \dots\dots\dots(5)$$

MT = Total Margin

Pr = Palm oil Prices at the final consumer level (Rp. / Kg)

Pf = Palm oil prices at farm level (Rp. / Kg)

Farmer share

Farmer share is the percentage of prices received by farmers at prices paid by consumers. Some things that affect the farmer share, including the level of processing, transportation costs, number of products, and product durability. Farmer shares have a negative relationship with marketing margins. If the marketing margin is getting higher, then the portion received by farmers is getting lower. Farmer shares can be calculated using the formula:

$$FS = P_f / P_r \times 100 \text{ percent} \dots\dots\dots(6)$$

FS = Percentage received by Farmers

Pr = Price of palm oil at the consumer level (Rp. / Kg)

Pf = Price of palm oil at the farm level (Rp. / Kg)

Market Performance Analysis

Market performance is a condition as a result of the structure and behavior of markets in everyday reality as indicated by prices, costs, and volumes of production that provide an assessment of whether or not a marketing system is good (Dahl and Hammond 1977) [12]. Market performance analysis can be seen from the marketing margin and farmer share.

3. Results and discussions

Marketing Margin Analysis

Determining the level of efficiency of a marketing system can be done through the marketing margin analysis approach. Marketing margin is the sum of all marketing costs incurred by marketing institutions and the amount of profits taken in commodity distribution activities from one marketing agency to another. The marketing margin calculated in this study is based on the marketing channel pattern that is formed in the marketing activities of palm oil fresh fruit bunches (FFB) in Simalungun Regency. In this study, marketing margins can be seen in each marketing channel.

Marketing margin is the difference between the price received by the farmer and the price paid by the agent. The margin for each channel for fresh fruit bunches (FFB) can be seen in Tables 1,2,3 and 4.

In the marketing channel I, farmers directly sell fresh fruit marks (FFB) to the factory, meaning that they do not go through intermediaries in marketing the results. Therefore, the price received by farmers is Rp. 1,403, the total cost of Rp. 961, - with a margin of 68.39 percent, farmers' profits in the marketing channel I amounted to Rp. 433 with a margin of 31.61 percent.

Tabel 1. Marketing Margin Channel I

Description	Price Spread Rp/Kg	Share Margin %
Manufacture Selling Price	1.403	
Total Cost	961	68,39
Farmer Profit	433	31,61
Amount	2.797	100
Magin		0

Source : Primary Data Analysis

In marketing channel II, farmers directly sell to large agents, and the average price received by farmers is Rp. 1,172 per kg, and the average total cost spent by farmers is Rp. 821 per kg, with a margin of 70.05 percent, with a farmer's profit of Rp. 351 per kg with a margin of 29.95 percent. And the purchase of a sign of fresh fruit by a large agent is Rp. 1,172 per kg with a margin of 83.53 and an average cost of Rp. 129 per kg with a margin of 9.19 percent and the income of large agents as much as Rp. 102 per kg with a margin of 7.27 percent. On channel II the margin is as much as Rp. 231 with a margin of 16.46.

Tabel 2. Marketing Margin Channel II

Description	Price Spread Rp/Kg	Share Margin %
Farmer's Selling Price	1.172	
Total Cost	821	70,05
Farmer Profit	351	29,95
Amount		100
Purchase Price	1.172	83,53
Total Cost	129	9,19
Agent Income	102	7,27
Factory Price	1.403	100
Amount		100
Margin	231	16,46

Source : Primary Data Analysis

Margin on Marketing Channel III can be seen in Table 3. It can be seen that the selling price of farmers is Rp. 925 per kg. The average cost incurred by farmers is Rp.681 with a margin of 73.79 percent. Farmer's income of Rp.236 per kg with a margin of 26.21 percent. The purchase price of a small agent is Rp. 925 with a margin of 78.78 percent and an overall cost of Rp.193 per kg with a margin of 16.11 percent. And income of Rp. 67 per kg with a margin of 5.11 percent. The price difference on this marketing channel III is Rp. 478 with a total margin of 34.06.

Tabel 3. Marketing Margin Channel III

Description	Price Spread Rp/Kg	Share Margin %
Farmers Selling Price	925	
Total Cost	681	73,79
Farmer Profit Amount	236	26,21 100%
Purchase Price	925	78,78
Total Cost	193	16,11
Small Agent Income	67	5,11
Small Agent Selling Price Amount	1.172	100
Prices received by large agent	1.403	
Margin of small farmer agents	247	21,07
Marjin of small agents	231	16,46
Total Margin	478	34,06

Source : Primary Data Analysis

From the statement of primary data analysis above, the marketing margin of channel I has 0, channel II has a margin of 16.46 percent, while in channel III the margin is 36.04 percent, the margin is lowest because the channel of marketing institutions is short which is on channel I (farmers), and the highest margin is in channel III because the channel glue is long (farmers - small agents - large agents - factories) The higher the marketing margin, the lower the share farmer. And the lower the margin obtained, the channel will be efficient, the efficient channel is marketing channel I, Fitriani (2014) ^[13].

Farmer share

Farmer's share is a comparison of the level of prices received by farmers with prices paid by end consumers. Farmer's share is a concept of remuneration for farming activities. Based on the results of the study, the magnitude of the farmer's share of oil palm farmers in Tanah Jawa Subdistrict is different for each marketing channel. The higher the farmer's share, the lower the marketing margin, Sinaga (2014) [14].

Table 4 shows the highest farmer's share is in the marketing channel I (farmers - factories) which is equal to 100 percent with the selling price at the farmer level and the same factory, which is Rp. 1,403, - while the lowest farmer 's share is in channel III (farmers - small agents - large agents - factories) which is 65.94 percent. The difference in farmer share that occurs in each marketing channel is due to differences in prices received by each marketing agency, the number of marketing institutions involved and functions performed so as to increase prices at the consumer level, Rahmawati (2013) [15].

Tabel 4. Farmer Share Analysis

Marketing Channel	Price of the Farm Level (Rp/kg)	Price of the Consumer Level (Rp/kg)	Farmers share (%)
I	1.403	1.403	100
II	1.172	1.403	83,53
III	925	1.403	65,94

Source : Primary Data Analysis

4. Conclusions

In this study, analysis of market performance (palm oil market performance) in Simalungun Regency shows that there are 3 marketing channels with different total margins. The relationship between behavioral structure and performance in Simalungun Regency can be seen from the Structure approach, Conduct, Performance (SCP). Relations between structure and behavior, namely farmers selling fresh fruit bunches to large agents, tight oligopoly market structure, linked to market behavior, farmers who use marketing channels II and III do not have the power to control prices, the relationship between behavior and performance is a short marketing channel (channel I) has a high farmer share, the relationship between structure and performance is the market used is a tight oligopoly market then the marketing margin is high.

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