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Role of the Middleman in Supporting of Oil Palm Smallholders' Community Performance: A Case Study in North Sumatra, Indonesia

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Abstract

Oil palm agribusiness involves many upstream and downstream stakeholders, including the middleman in marketing activities. Traders play a significant role and influence the economy of oil palm farmers in Serdang Bedagai Regency. This research aims to evaluate the part of the middleman in supporting the performance of oil palm smallholders in Serdang Bedagai Regency, North Sumatra and the obstacles in marketing fresh fruit bunches (FFB) faced by farmers and the middleman. The samples of this study were 6 middlemen and 40 oil palm farmers. The sampling method used was purposive sampling. The method used in the analysis is a qualitative descriptive method, which explains the role of intermediaries in supporting the performance of smallholder oil palm farmers. The results showed that marketing support, capital and quality were the essential roles of the middleman as perceived by the smallholders. Apart from that, in the smallholder palm oil plantation, there are obstacles, namely in terms of price, road access and weight. Meanwhile, the barriers for the middlemen are in terms of price and buying and selling contracts. Policy recommendations for stakeholders include educating smallholder oil palm growers through counseling about access to information, improving access to the main roads in Serdang Bedagai Regency, periodic government monitoring, and drafting a written or legal sale and purchase agreement as not to harm both parties.

Keywords: industrial plantation; middleman; palm oil; smallholders

INTRODUCTION

Oil palm is one of the plantation crops exported by Indonesia (Arsyad et al., 2020). Based on FAO (2023), in 2020, Indonesia will be the world's largest exporter of palm oil, followed by Malaysia and Thailand. Palm oil can be processed into vegetable oil and has ingredients that are beneficial to health. Mustard coconut oil contains a lot of vitamin E, which is a natural antioxidant (Boateng et al., 2016). Crude palm oil (CPO) is the cheapest source of β-carotene among all vegetable oils so it can be used as a provitamin A. Palm oil can be used as an alternative natural food that is affordable and readily available to the public (Perdani et al., 2016). Based on this, the quality of oil palm needs to be maintained from cultivation, and post-harvest handling, to marketing. Poor quality of palm oil can affect its content which can have an impact on public health.

Oil palm agribusiness involves many upstream and downstream stakeholders in distributing palm oil yields to the community. Oil palm must first be refined into derivative products such as palm oil. In post-harvest activities, farmers cannot

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be separated from marketing activities, which are very important to get profits and develop the business. The marketing of fresh fruit bunches (FFB) from oil palm involves the transfer of ownership of the flow of goods by a marketing agency that performs one or more processes of the marketing function (Lifianthi et al., 2022). Marketing activities involve several economic actors or marketing institutions that assist farmers in distributing their products. The tasks carried out by the marketing agency are the exchange function, the physical provision function and the facility function (Husnarti, 2017). Oil palm agribusiness requires stakeholder support to improve its sustainability status (Suardi et al., 2022).

The majority of the people of Serdang Bedagai Regency are smallholder oil palm farmers with an average land area of fewer than three hectares and small yields. This condition causes the smallholders not to be able to sell their produce directly to the mill. Therefore, a marketing agency is needed as an intermediary that helps smallholder to be able to sell their products. One of the marketing institutions in oil palm agribusiness is the middleman. A collector trader is an entity or individual who collects forestry, plantation, agricultural and fishery products, then sells them to industrial business entities and exporters, or can also sell them to the public (Mitha et al., 2020). The existence of middlemen as marketing agents is considered essential by farmers (Abebe et al., 2016) because middlemen help farmers in marketing agricultural products and also lend capital to farmers (Romawati et al., 2017; Lisarini and Adillah, 2020). In addition, middlemen also have an extensive social network, whereas farmers do not necessarily have one (Azizah, 2016). The network owned by these middlemen helps farmers in the agricultural marketing process and can be a source of information for farmers (Chigusiwa et al., 2013). Sudrajat et al. (2021) also stated the positive role of middleman, namely facilitating the sale of agricultural products, lenders of farming inputs and providing cash loans. Based on these results, the role of middlemen also has a positive side, not consistently negative. Middlemen are often stereotyped that middlemen constantly suppressing prices for farmers.

Palm oil middlemen serve a crucial role for smallholder oil palm planters since, in addition to acting as intermediaries, they also supply transportation, capital, infrastructure facilities in the form of storage and sorting, and market knowledge to facilitate the sale of harvests to warehouses (Abebe et al., 2016; Ismail et al., 2020; Tampubolon et al., 2021). Research on the role of collectors in palm oil commodities in maintaining the quality of palm oil has not been carried out much. So far, several studies have only discussed palm oil marketing (Authar, 2018; Sumartono et al., 2018; Kana et al., 2022). Research on the role of middlemen has been carried out on food (Lisarini and Adillah, 2020); and horticultural crops (Mitha et al., 2020; Sudrajat et al., 2021; Idris et al., 2022). In contrast, this research examines the role of middleman in plantation crops, especially oil palm. This research can complement previous research, namely focusing on the part of collectors in maintaining the quality of palm oil so that the palm oil produced has optimal health benefits for consumers.

Middleman played a significant role and influenced the economy of oil palm farmers in Serdang Bedagai Regency. In addition, middlemen also play a role in influencing the quality level of palm oil in terms of loading and unloading processes, distribution and storage times. This study aims to determine the position of middleman in supporting the performance of oil palm smallholders in Serdang Bedagai Regency, North Sumatra and the obstacles in marketing FFB faced by farmers and middlemen in distributing oil palm.

MATERIALS AND METHOD

This study uses a qualitative descriptive method to provide an overview of the inquiry item. This investigation was conducted in Serdang Bedagai Regency, North Sumatra Province, Indonesia. This sampling uses a process known as purposive sampling. This study's samples consisted of 6 middlemen and 40 oil palm producers. All of the samples were selected based on information from the management of farmer groups and palm oil mills.

Primary data is taken by observing subjects, events or test results regarding the role of oil palm middleman and smallholders. The preliminary data includes the identity of respondents, production costs, land area, number of farmers, selling prices at the farmer level and support from middleman in improving the performance

of oil palm smallholders. The analysis method used in this research is descriptive analysis.

RESULTS AND DISCUSSION

Characteristics of farmers

Farmer's age

Figure 1 shows the percentage of farmers of Serdang Bedagai Regency by age. Most farmers in Serdang Bedagai Regency are of productive age, namely 21 to 62 years. Based on Statistics Indonesia, of productive-age in the age range of 15 to 64 years. One factor that can influence how farmers manage their farms is age. This is because physical strength at a productive age is still excellent and optimal in farming management. However, older farmers usually have more management experience. In comparison, younger farmers have less farming experience, so training is needed to broaden and improve their knowledge of proper oil palm cultivation techniques, including using quality seeds (Jafar et al., 2022).

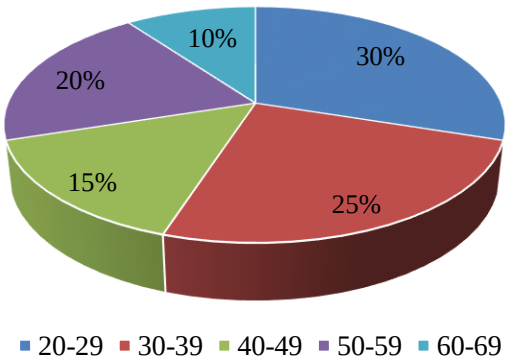

Figure 1. Characteristics of farmers by age

Farmers of productive age are usually more progressive towards innovation and technology, especially farmers around 20 and 30. According to Arvianti et al. (2022), productive-age farmers make bolder decisions when developing their agricultural businesses and have long-term planning compared to old farmers. Apart from age, education also influences the productivity of smallholders in farming.

Farmer education

Education is vital for every individual, including middleman and gardeners. The majority of gardeners in Serdang Bedagai Regency are senior high school students (Figure 2). The level of education can affect a person in making decisions. In addition, education is essential in agricultural development because it is one of the facilitating conditions that can increase farmer productivity (Edwina and Maharani, 2017).

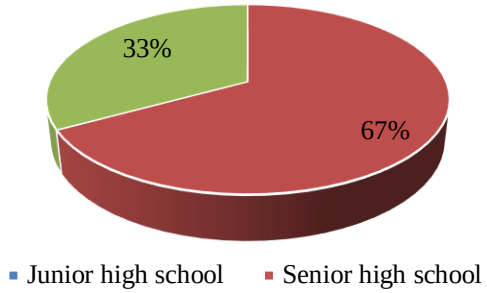

Figure 2. Smallholders' characteristics by education

Oil palm farmers with higher education will find it easier to adopt new technologies as per the principles of good agricultural practices. The technology application starts from harvesting, loading and transporting it to the palm oil mill. These activities are interrelated because each contributes to determining the quality of FFB and whether the FFB quality will be good. The FFB quality parameter observed was free fatty acid (FFA) content.

Farmer land area

The average land area of the Serdang Bedagai community's oil palm smallholders ranges from 1 to 8 ha. Most farmers are transmigration people who get 2 ha of land for each head of the family. Only a tiny portion has an area larger than 8 ha (Figure 3). The wider the land owned, the more smallholders will look for convenience in managing their farming area so that the area of agriculture is very influential in decision-making in oil palm rejuvenation (Lesmana et al., 2022).

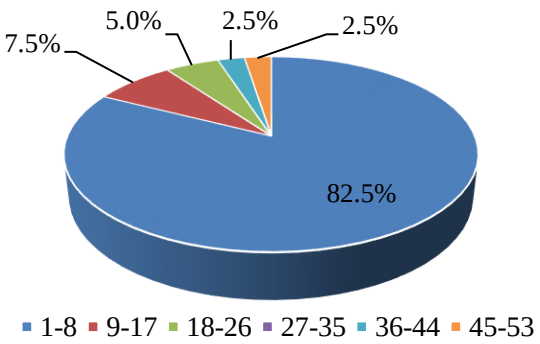

Figure 3. Area of ownership of land for oil palm plantations in ha

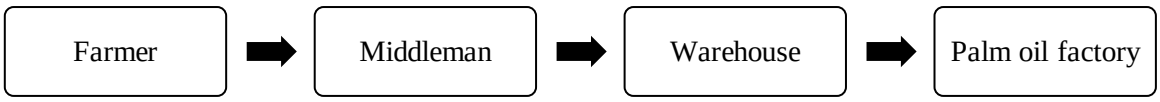

Figure 4. Marketing chain of oil palm FFB in Serdang Bedagai Regency

Marketing support

Most of the people of Serdang Bedagai Regency are smallholder oil palm whose product is in the form of FFB. The performance of oil palm growers is seen from the quality, quantity and effectiveness of oil palm cultivation with the principles of good cultivation practices (Ambarsari et al., 2022), so that it can affect the results of FFB. The FFB produced by the smallholders cannot be sold directly to the mills but must be through intermediate traders. Intermediate traders here are middlemen. So the middleman has a role in supporting FFB marketing activities in the Serdang Bedagai Regency.

The middleman comprises a small middleman (resellers) and a giant middleman (warehouses). Small middlemen have a marketing area limited to each village, while giant middlemen have a larger area, consisting of several towns or an entire sub-district. Figures 4 is the FFB marketing chain of smallholder oil palm growers.

Based on Figure 4 it can be seen that the FFB marketing chain starts from the smallholders as FFB producers, selling to middlemen. Middlemen carry out the FFB purchasing system to farmers based on price agreements. Farmers, as price takers, can only approve the price that the middleman offers. Price agreement is made after farmers confirm sales to the middleman the day before harvest. So that after harvest, FFB can be transported directly to the next marketing chain.

The middleman as middleman and intermediary traders are tasked with picking up the FFB at the farmer's yield collection point (TPH) for the transportation process. From the results of this study, several obstacles occurred in the transportation process, namely the TPH planters could not be accessed by trucks, which required the farmers to move the FFB to a place that could be accessed by middleman' trucks. The maturity level of FFB determines the price of FFB. FFB weighing and sorting are carried out before the transportation process. Middlemen sell to warehouses which are FFB storage areas. FFB from the warehouse is sold to the palm oil factory (PKS) as the final consumer.

In this case, it can be explained by the existence of middlemen and warehouses that are very helpful for farmers in marketing because FFB marketing requires adequate transportation. In addition, only institutions that have contracts or cooperation with PKS can sell FFB to PKS. So, for smallholder oil palm planters, it is greatly helped by the presence of middlemen such as middleman and warehouses.

The purchase price of FFB from middleman to farmers is also changing according to the FFB price provisions informed by the warehouse. The middleman will then consider the FFB price determined by the warehouse in deciding the purchase price of FFB for smallholders. The selling price of FFB from smallholders to middlemen is lower than the selling price for middlemen to warehouses. This happens due to the marketing margin taken by middlemen in the marketing chain. The collector's margin is 100 to 150 IDR per kilogram of FFB.

From the results of this study, it can be seen that the farther the distance for transporting FFB to the warehouse, the greater the costs incurred by middleman, if the distance for transporting FFB to the warehouse tends to be closer, the costs incurred by middleman will be smaller. According to the findings of this study, the sales function for all middlemen in selling FFB to palm oil warehouses is not PKS. The PKS has specific standards regarding the amount of FFB tonnage that must be deposited daily. The distance to the warehouse is closer than the distance to the PKS, thereby reducing costs incurred.

Capital support

Middlemen provide loan capital to farmers as a form of good cooperation. Loan capital is provided after an agreement has been made between middleman and planters. The money is provided in cash, fertilizer and seeds based on

the planters' needs. Loan agreements occur only orally based on trust. If a farmer borrows capital from a collector, the farmer must sell FFB to the collector. The administration that assists in calculating loans is only a receipt for the weighing results, which is given at each weighing.

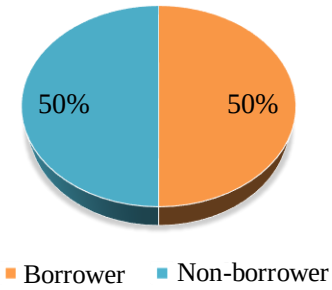

Figure 5. Percentage of oil palm smallholders who borrow cash from middleman in Serdang Bedagai Regency

Figure 5 show that some 50% of smallholder oil palm farmers in Serdang Bedagai Regency borrow capital from middlemen and the rest use their money for farming. Farmers prefer to borrow from the middleman because there is no interest. Farmers prefer to receive loans in cash and without calculating interest rates because farmers tend to be very risk-averse (Sudrajat et al., 2021). The average farmer borrows 4,000,000 IDR per loan. The highest farmer loans reach 12,000,000 IDR. Most farmers borrow capital to meet living expenses and additional money for palm oil cultivation.

Loan capital repayments are made by deducting the proceeds from the sale of FFB by the planters at each weighing with a minimum deduction of 150,000 IDR. Another consideration is that if the price of FFB drops, don't cut it into installments. The repayment of the capital loan has no timeframe for repayment but only an agreement that the planters must sell FFB to the middleman as long as the farmer still has debt. The amount of loans that smallholders can make to the middleman is adjusted to the ownership of the land area. This is because the land area will affect the size of the productivity obtained. Productivity has a direct relationship with income. The amount of income is a consideration for the middleman in providing capital loans because the payment can be measured by the ability of smallholders related to the principle of capacity.

Quality support

FFB is at its optimum ripeness once loose fruits start detaching from the fully formed bunch on the oil palm. At this point, FFA also start setting in when bruising of bunches occurs during harvesting and transporting. FFA is detrimental to the yield and final quality of the CPO created at the mill. This is why the harvested FFBs must be delivered to the mill for processing within 24 hours. The faster the fruit is crushed, the less FFA is formed, and the better the yield and quality of CPO.

Quality is the characteristic of a product or service that affects its ability to satisfy stated or implied needs. In this case, the role of middleman in supporting the quality of palm oil is related to sorting, weighing and transportation. Sorting oil palm fruit, often called grading, is the process of separating oil palm fruits and providing fruit classification based on predetermined criteria with a grading scale. These criteria include unripe fruit, overripe fruit, rotten fruit and others. The study results found that middlemen do sorting related to the level of ripeness because there are still many gardeners who harvest unripe fruit. By sorting, it will educate the smallholder oil palm planters that if there is unripe fruit, it will be removed from the scales so that it can change the habits of smallholder oil palm farmers in harvesting. It is hoped that the planters will maintain the quality of palm oil production.

The fruit is not weighed in the oil palm plantation owned by the farmer, but the weighing is carried out at the collection point for the oil palm fruit belonging to the collector. Weighing is done after the sorting activity is complete. The openness of the weighing process will build farmers' trust in the marketing and pricing process. Reasonable prices will maintain the quality of palm oil production produced by smallholders.

Transportation is the most crucial aspect of the marketing process. Without a transportation process, the FFB cannot be distributed to consumers (PKS). Transportation determines the quality of palm oil because delivery delays will increase FFA. The role of the middleman in supporting the quality of palm oil is to help smallholders immediately move it from the result collection point by hastily transporting it to the palm oil mill.

Differences in the type of conveyance and the position of the FFB layer will affect the difference in the FFA content of FFB. FFA levels will be higher if the fruit is not immediately transported to the factory to be processed (Krisdiarto et al., 2017). Several factors can cause a relatively high increase in FFA levels in palm oil, including harvesting the fruit that is not on time, delays in collecting and transporting the fruit, stacking the fruit for too long, and the hydrolysis process while at the factory. The high concentration of FFA in palm oil is very detrimental. This high FFA causes the oil yield to decrease so that the oil quality decreases. If the FFA content in CPO increases beyond the predetermined quality standards, the CPO cannot be sold (Hastuti et al., 2015). This causes losses for CPO-producing companies. In this case, the role of middleman is to maintain the quality of the oil produced from the sent FFB.

The existence of a middleman is helpful for ensuring the quantity and quality of commodities, reducing costs for measuring quality or sorting, and increasing commercialization due to the low resources of smallholders. Although several research findings stated that the presence of middleman causes low income for smallholders and creates dependency and exploitation of smallholders, intermediaries are also needed to resolve market imperfections for tiny farmers (Ishak et al., 2018). Traders and farmers are connected socially, starting from determining the price and where the FFB will be sold, providing vehicles for transporting FFB, providing up-to-date information on fertilizer prices, and plant maintenance management (Ismail et al., 2020).

Obstacles in FFB marketing

Oil palm plantations in Serdang Bedagai Regency have existed for a long time and are a hereditary business. Even in every industry, there are always obstacles in the process. In this study, the barriers faced by farmers and middlemen were not too many and were still in an appropriate category, as seen in Table 1.

Table 1. Barriers to FFB sales

Barriers	Farmer	Middleman
Price of palm oil	✓	✓
Road access	✓	-
Palm oil weighing	✓	-
Purchase contract	-	✓

Obstacles at farmer level

Price of FFB

Fluctuating FFB prices are the main obstacle faced by farmers. Price uncertainty at the level is caused by several factors, including asymmetric information between palm oil mills and the government and delays in receiving price information from farmers. Farmer-level palm oil prices may vary depending on the farmer's location, weather conditions, stock availability and market demand (Haloho, 2019). In addition, the price is also influenced by the level of supply. If production is abundant, the price will decrease.

Access road

Access road between land and warehouses is also an obstacle for farmers. Road conditions are one of the determining factors for the selling price of FFB to collectors. Namely, the worse the road conditions, the lower the selling price of FFB to collectors. In this case, the government's role is needed to help improve road access in the Serdang Bedagai Regency. This is according to the results of research by Haloho (2021), which states that the price of palm oil at the farm level can vary depending on factors such as the farmer's location, weather conditions, stock availability and market demand.

Weighing of FFB

The FFB weighing process is carried out when the FFB is about to be transported into the truck. The FFB weighing process carried out by weighing employees is often considered inappropriate by farmers, so farmers choose to sell FFB to other collectors. From the research results, the scale mismatch is because some people take advantage of the opportunity to take advantage. All FFB harvested from the plantation are sent directly to the palm oil mill within 24 hours. The FFB weighing process is also a determinant in maintaining the quality of palm oil. The longer the weighing process takes from harvest time, the faster the factory delivery process will be delayed. The shorter the time between harvesting and processing at the factory, the less FFA content is formed, resulting in better harvest productivity and CPO quality.

Obstacles at the collector level

Price of FFB

The price of FFB is one of the obstacles experienced by middlemen. Although the cost of FFB does not affect the income of middlemen,

prices that often change suddenly greatly hinder the transaction process in the field, so negotiations and disputes often occur between middlemen and farmers in purchasing FFB.

Sale purchase contract

In the Serdang Bedagai Regency, the sale and purchase of FFB between middlemen and farmers only use the principle of trust and agreement. There is no written agreement on paper regarding buying, selling and borrowing capital. In the absence of a clear and written contract, it is clear that it is very detrimental to the middleman, because farmers often sell FFB to other middlemen even though they still have sales agreements with the middleman concerned.

CONCLUSIONS

The role of middlemen in supporting smallholder oil palm planters is in the form of marketing, capital and quality support. Barriers faced by farmers are price, road access and the weighing process. Meanwhile, middlemen are hampered in pricing, and buying and selling contracts. Policy recommendations that can be made to reduce these obstacles are educating oil palm farmers through counseling related to government access to price information. With this program, it is hoped that oil palm smallholders can increase their bargaining power. The government's role is urgently needed in helping to improve main road access in Serdang Bedagai Regency. Periodic monitoring of scales by local governments needs to be done to monitor quality and quantity. A sale and purchase contract is also required in writing or legally to protect both parties.

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