

Structure Market Of Crude Palm Oil Industry In Indonesia

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Abstract

The Indonesian Competition Commission (ICC) in 2022 has compiled a study on Alleged Control of Business Use Rights in the Palm Oil Plantation Sub-Sector that Can Result in Monopolistic Practices or Unfair Business Competition with the conclusion that the results of the analysis conducted on secondary data regarding companies engaged in the palm oil and cooking oil agribusiness system, the conclusion is obtained that leads to the alleged potential violation of Article 17 of Law Number 5 of 1999 concerning Prohibition of Monopolistic Practices and Unfair Business Competition. The palm oil agribusiness system is closely related to the palm-based cooking oil industry system. However, the two systems each have a structural pattern that has a very high level of complexity. The Palm Oil industry has a market structure of oligopoly in the downstream, and oligopsony in the upstream. This condition allows the dominant company to become a price maker at all stages of the palm oil industry supply chain. Oligopoly and oligopsony conditions can cause deadweight loss for smallholder oil palm farmers (pressure on FFB prices), consumers (palm oil prices), and even the government

Keywords: *Palm Oil Industry, ICC, Oligopoly*

INTRODUCTION

Palm Oil is one of Indonesia's main export commodities and contributes the largest foreign exchange earnings for Indonesia (Indonesian Palm Oil Association / GAPKI). Oil palm plantations are spread across almost the entire Indonesian archipelago, especially on the islands of Sumatra and Kalimantan. The number of large oil palm plantation companies also tends to continue to increase, from 693 companies in 2000 to 2,892 companies in 2021. The behavior of companies in an industry is the basis for the analysis of companies in facing competition in an industry. The company's ability to enter a market can be seen from the company's ability to influence market prices and defeat competitors, which is called Market Power. Types of competition consist of perfectly competitive markets, monopolistic competition, oligopolistic competition and monopolistic competition. The market power of a company into one of the types of competition, seen from the amount of sales share of the company to the total sales in a market. If the type of competition has been identified, then the company's behavior will adjust, especially in terms of the company's expectations of the behavior of its competitors.

The indicator of a company's market power is seen from the company's market share. Market share can be calculated from the ratio of asset size to total assets of a company. The market power of a company increases along with the size of the company's market share. This has an influence on the company's behavior and the behavior of competing companies.

This market share is seen from the company's sales, so that the level of market control can be illustrated. The larger the market controlled, the greater the market concentration for the company and will lead to certain types of competition. To calculate market concentration for this type of competition, the Herfindahl Hirschman Index (HHI) will be used. Concentration ratio (CR). This concentration ratio calculates the percentage of sales in the market out of the absolute number of large firms in the market. The greater the concentration of a market, the more it will lead to imperfect competition, which in turn leads to monopolistic competition.

P. Didit Krisnadewara (2005) Conducted research on the Market structure and Competition of the Motorcycle Industry in Indonesia in 1998-2005. The types of data taken based

on their sources are primary data and secondary data. In this research, primary data is collected from the distribution of questionnaires and the results of interviews with several parties who have been selected as samples or respondents. This data is needed to support the analysis of competition in the motorcycle industry. In this research, secondary data was obtained from CIC Indocommercial, the Motorcycle Industry Association (AISI), and other sources for the period 1998-2005. This secondary data is needed to determine the market structure as well as the competitive analysis. In this research, it is calculated to find the market structure by using the concentration ratio. In this research, it is known that the structure of the motorcycle market in Indonesia in 1998-2005 based on the calculation of the concentration ratio (CR3 and CR4) is included in the tight oligopoly market structure. In terms of competition, there was intense competition in both price and non-price aspects. The competition is quite tight for the type of duck with the type 100-110CC.

Ariani and Sri Susilo Conducted a study on market structure and behavior in the car industry in Indonesia. This research is based on 1999 data with data sources from CIC Indocommercial. The analytical tools used were CR4 and competitive strategy analysis as well as Porter's "five forces of competition" (1980). The results show that for the market structure, there is a strict oligopoly firm form based on production capacity data, production capacity data of every single agent, sales data of commercial vehicles, and sales data of sedan vehicles. The strategies applied in the car industry are more dominant in non-price competitive strategies, both in the form of promotion and advertising, after-sales service, and product development.

Mudrajad Kuncoro and Anggito Abimanyu (1995). This study is about the structure and performance of Indonesian industry in the era of free trade. This study utilizes input-output table to observe the industrial structure in Indonesia. The analytical tool used is the CR4 method. The industry structure based on concentration ratio shows that the average concentration level for the manufacturing sector is 47 percent, higher than the industry concentration in other developing countries. Based on international standards, an industry has an oligopoly structure if the four largest companies in the same industry have a concentration above 40 percent. Whereas the majority of 7 out of 9 subsectors of the manufacturing industry have a ratio above 40 percent. Based on this assumption, the market structure of Indonesia's manufacturing industry is oligopolistic. This kind of structure puts no pressure on competitors to minimize costs.

This study also shows a negative correlation between performance (export orientation) and industry concentration. Highly concentrated subsectors tend to be less willing to engage in export activities. Industrial subsectors with high concentration but low export orientation include the non-metal, metal goods, chemical, paper, food, and base metal industries. Meanwhile, industrial subsectors with high export orientation but low concentration include wood goods and textile/shoe industries. The evidence suggests that deregulation has reduced industry concentration in general, through an increase in the market share of export-oriented industry subsectors.

RESEARCH METHODS

The data used in this study is data on Large and Medium Industries from the Central Bureau of Statistics in 2015. The unit of analysis of this data is the company so that it can provide a micro picture of Large and Medium-sized companies in Indonesia. This data shows various variables related to the company, such as input, output, and labor.

Additional data is used on the number of large oil palm plantation companies from the Central Bureau of Statistics. The total plantation data provides an overview of the year-on-year increase in oil palm plantations in Indonesia.

RESULT AND DISCUSSION

Indonesia together with Malaysia is the largest producer of palm oil in the world. Oil palm in Indonesia was first introduced as a plant from Mauritius (Africa) at the Botanical Garden (currently named Bogor Botanical Garden) by Johannes Elyas Teysmann, who served as Director of the Botanical Garden, in 1884. The plant flourished and was the parent of oil palm plantations in Southeast Asia. This mother tree died on October 15, 1989, but its sapling can be seen at the Bogor Botanical Garden. Oil palm in Indonesia was only cultivated as a cash crop in 1912 and the first export of palm oil was made in 1919. The first oil palm plantation was established in Tanahitam, Upper North Sumatra by German Schadt in 1911.

At the beginning of its development, oil palm plantations in Indonesia were cultivated by foreign business actors, with large-scale businesses integrated between cultivation (plantations) and Palm Oil Processing plants (PKS). Until 1939, there were 66 plantations with an area of around 100,000 ha in Indonesia. The new era of oil palm plantation development in Indonesia occurred in the period 1957-1968 where there were several important policies in an effort to make oil palm plantations a part of Indonesia's development. Some important things in this period are the nationalization of Dutch plantation companies by the government on December 10, 1957, which was carried out based on the Decree of the Minister of Agriculture of the Republic of Indonesia No.229/UM/1957, which was then followed by the takeover of companies owned by other foreign entrepreneurs. Then in 1957 - 1960 the government reorganized the State plantation companies, by forming new organizations based on commodities such as rubber, various crops, tobacco, sugar, and fiber. This was carried out from 1963 to 1968. The reorganization of the state plantation company was a major momentum in the development of the state-owned plantation business, which is now known as PT Perkebunan Negara.

According to Oil World data (2017) of the world's vegetable oil consumption of 199 million metric tons of vegetable oil uses an area of 277 million hectares, with the largest composition of soybean oil using 122 million hectares with a production of 0.4 metric tons / hectare contributing 45.8 million metric tons of soybean oil; followed by rapeseed with an area of 36 million hectares with a production of 0.7 metric tons / hectare contributing 25.8 million metric tons of rapeseed oil; then sunflower with an area of 25 million hectares producing 0.6 metric tons/hectare of oil contributing 15.9 million metric tons of sunflower oil; finally palm oil with an area of 16 million hectares producing 4 metric tons/hectare contributing 65 million metric tons of palm oil to the world's vegetable oil consumption. This shows how palm oil has a very high productivity compared to other types of vegetable oils in the world.

Based on data from the United States Department of Agriculture (2008), Indonesia has become the largest exporter of palm oil since 2007, after many years of exports from Malaysia. As the world's largest palm oil producer, Indonesia has natural and regional carrying capacity in the form of solar energy, rainfall, mineral deposits, diversity of agricultural commodities and geographical location, as well as suitable topographical conditions, Indonesia also allows in terms of land availability to produce all the time (Ditjenbun, 2018).

Palm oil is an efficient cooking oil option compared to other oils derived from sunflower, coconut, or soybean. The following is a comparison of the productivity of oil-producing crops.

Oil palm agribusiness in Indonesia is generally divided into three main groups, namely:

- a. Plantation business;
- b. Palm Oil Processing (mills); and
- c. Refineries.

Many large companies, both private and state-owned, develop their own nurseries to meet the needs of new plantings on their business land. The output of this plantation business is in the

form of FFB or oil palm fresh fruit bunches which are harvested when they have reached a certain level of maturity. If the FFB is harvested less or too mature, the quality and quantity of palm oil produced by the processing plant will not be maximized.

The increasing demand for palm oil both domestically and internationally, as an industrial raw material has encouraged the development of the palm oil-based industrial sector, the upstream industry (agro upstream industry) to be developed includes the oleofood, oleochemical and kemurgi industries. The three types of industry are one of the priority upstream industries to be developed, based on the mandate of Law No. 3 of 2014 article 8 paragraph 1 concerning the National Industrial Development Master Plan (RIPIN) 2015-2035. The oleofood industry which is focused on being developed or built until 2035 includes olein; stearin; glycerol; coco butter substitute; margarine; organic acids and alcohols from palm oil industry waste and specialty fats food additives. The oleochemical industry includes fatty acids, fatty alcohols, vegetable fatty acids (fatty amine), glycerine, stearic acid, methyl esters, palm oil waste-based bioplastic; and palm oil-derived polymers. Meanwhile, the energy industry consists of biodiesel (fatty acid methyl ester/FAME), bioavtur (bio jet fuel), biodiesel, bioethanol, biogas from POME, biomaterials for medical devices, lignin-based aromatic building blocks for drug/pharmaceutical synthesis; and nano-cellulose derivatives, bio-based fibers & polymers (carbon fiber, viscous), secondary biofuels (Ministry of Industry, 2014).

CPO prices are regulated in Regulation of the Minister of Trade of the Republic of Indonesia Number 46 of 2022 concerning Procedures for Determining Export Benchmark Prices for Agricultural and Forestry Products Subject to Export Duty, Reference Prices for Agricultural and Forestry Products and List of Refined, Bleached and Deodorized Palm Olein Brands Subject to Export Duty and Service Tariffs of the General Service Agency of the Palm Oil Plantation Fund Management Agency. Export Benchmark Price (HPE) is the price set periodically by the minister who organizes government affairs in the field of trade after coordinating with ministers, heads of non-ministerial government agencies, and/or heads of relevant technical agencies. Furthermore, the Reference Price (HR) is the average international price and/or the average price of certain commodity exchanges in the country for determining export duty rates and/or determining service rates for the General Service Agency of the Palm Oil Plantation Fund Management Agency, which is determined periodically by the Minister who organizes government affairs in the field of trade after coordinating with the Minister, the head of the non-ministerial government agency, and/or the head of the relevant technical agency. Article 3 of the Regulation states that the Export Benchmark Price (HPE) and Reference Price (HR) for agricultural and forestry products are set by the Minister which is implemented by the Director General on behalf of the Minister periodically as explained in more detail in the Cooking Oil Price Control Policy below.

Oil Palm plantations have the largest number of companies and plantation areas compared to all types of plantations. In terms of production (tons), oil palm also shows a much larger production compared to other types of plantation crops.

Based on the land area indicator, oil palm plantations occupy a much larger area of land, thus showing a more favorable choice of plantation compared to other types of plantation crops. This cannot be separated from the high market demand for palm oil products, both locally and globally.

The results of oil palm plantations are processed into Crude Palm Oil (CPO) and become market-ready commodities to enter the processing industry into palm oil or its derivatives and can be directly exported to foreign countries. Indonesia's CPO production has had an increasing trend since 2011. an increase that cannot be separated from the increasing number of oil palm plantations in Indonesia. 2015 shows the value of CPO production amounted to 368.38 trillion rupiah, an increase from 2011 which reached 284 trillion rupiah. This increase also shows a fairly stable increase in demand for CPO.

Based on Large and Medium Industry data from Statistics Indonesia, 548 companies were producing CPO in 2013 and 693 companies in 2015. Throughout 2013-2015, production values with a maximum production of one trillion rupiah accounted for over 90%. This data is shown in the frequency distribution table for 2013-2015. The distribution of CPO output for each year is skewed to the left, so the number of companies producing above one trillion rupiah is below 10%.

The frequency distribution for 2014 has a production value class above the distribution for 2013, indicating that the production value in 2014 increased compared to 2013. The number of companies in the maximum output value range of 1 trillion also increased from 509 companies in 2013 to 551 companies in 2014.

Market structure analysis is conducted using the concentration ratio approach from 4 companies that have the largest ratio. This method is to measure structural power because it involves the absolute number of companies and the size of the distribution. Market concentration for the market is done by using the output value approach which reflects the revenue value in rupiah from each CPO company in each year.

The data used is the data of Large and Medium Industries (IBS), where the data available to the author are 2013, 2014, and 2015. The most recent IBS data available on the Statistics Service Information System website from the Central Bureau of Statistics is 2019. IBS data for the last 3 years cost around 15 million rupiah for data for 2017-2019, while data for 2016 is not available. Due to the limited budget for this study, data from 2013-2015 was used, which is sufficient to illustrate the market structure of the CPO industry in Indonesia.

The number of CPO companies based on Large and Medium Industry data from BPS in 2013 was 548 companies, in 2014 there were 597 companies, and 693 companies in 2015. The formulation of CR4 as in the Methodology section was applied and CR4 was obtained for 2013, 2014, and 2015 as shown in the following table. The CR4 figure shows the market concentration in the four companies with the largest share. Based on the categories in Chapter 3, CR4 can be classified as the concentration of market share in the four largest companies if it has a concentration ratio of 25%.

The results of the CR4 calculation in the table above show a number at a value of less than 25% which means low competition between companies. Market control by only the 4 largest companies shows high market control but is still far from the criteria for market control. This result is confirmed by the Distribution Table for each year, where the maximum output value of one billion has reached more than 90% of the total number of CPO companies in Indonesia.

This result is consistent from 2013 to 2015, when the CR4 level was much lower than 25%. In 2014, it increased to 16.94% from 8.5% in 2013. In 2015, it dropped again, but was higher than in 2015, which shows an upward trend from 2013. This upward trend should be confirmed with younger years of data.

Another tool to measure the market concentration of a company is the use of the Herfindahl Hirschman Index (HHI). This index is used to measure the distribution of market share or to calculate market concentration across industries. The results of the HHI calculation confirm the results of the CR4 calculation and provide confidence in the status of market concentration in the CPO industry in Indonesia.

The year 2014 saw the HHI figure more than double that of 2013. In 2015, there was a decline in the HHI number, which showed a trend from 2013. All HHI figures are far from the reference figure of 1800, which is the limit for declaring a high concentration in market share. Based on this HHI, it corroborates the calculation and analysis of CR4, which states that there is no control of the CPO market in a small number of companies. Based on the two criteria, namely CR4 and HHI, it is clear that there is no market control, either oligopoly or monopoly. The CPO industry during 2013-2014 showed an increase in the number of companies and an increase in

the value of total output, but it was quite proportional in terms of the percentage range of output, so the distribution of market control was quite normally distributed.

Cooking oil (), which is made from palm oil or Crude Palm Oil (CPO), is one of the main needs of the Indonesian people. Generally, cooking oil consumed by the public is made from CPO, but there are also those made from coconut, soybeans, corn, peanuts, olives, and other ingredients. CPO itself is one of the mainstay commodities for non-oil and gas exports and a source of foreign exchange and tax revenue. Oil palm farming and the cooking oil industry also absorb a lot of labor.

Since the last quarter of 2021, the price of migrants, including bulk migrants, has started to increase. In November 2021, the average price of bulk and packaged moved at IDR 17,750 and IDR 18,400 per kg, while the price of bulk in modern markets reached IDR 21,750. The National Strategic Food Price Information Center (PIHPSN) on May 25, 2022 recorded the average national price of bulk cooking oil at IDR 18,550 per Kg. Provinces with average bulk cooking oil prices that comply with the HET only occur in Bengkulu, which is IDR 14,250 per Kg.

Responding to the increase in cooking oil prices, the Government then took the Domestic Market Obligation (DMO) and Domestic Price Obligation (DPO) policies. The government set the Highest Retail Price (HET) of cooking oil effective February 1, 2022 with the following price details:

- Bulk cooking oil price of IDR 11,500/liter,
- Simple packaged cooking oil price of IDR 13,500/liter,
- The price of premium packaged cooking oil is IDR 14,000/liter.

This policy aims to control oil prices in the market. However, after this policy, both bulk and packaged have experienced scarcity. In modern retailers, packaged cooking oil disappeared from display shelves. People gathered in front of modern retailers waiting for the arrival of cooking oil trucks. They also brought their family cards and identity cards to get a queue number to purchase cooking oil.

As a result of the scarcity of cooking oil, there were queues to purchase cooking oil in various regions in Indonesia. The then Minister of Trade, Muhammad Lutfi, during a visit to Kebayoran Lama Market found that none of the stalls in the market complied with the HET set by the government. On March 16, 2022, the government then revoked the HET policy for packaged. stocks began to flood traditional markets and modern markets. The abundance of stock was accompanied by the soaring price of. The government still sets the HET of bulk migrants at IDR 14,000.00/liter, but the price of bulk migrants continues to increase. At the end of April 2022, bulk oil was at a price of IDR 20,500/liter.

On April 28, 2022, the Government again issued a policy to control the supply of domestic migrants by imposing a ban on the export of palm oil derivatives, including CPO. Various groups, both from producer associations and farmers, protested this export ban. This policy was also considered to be the cause of the decline in the price of oil palm fresh fruit bunches (FFB) at the farm level. Some argued that the decline in FFB prices was due to the fullness of companies' CPO storage tanks due to the obligation to allocate CPO domestically that could not be absorbed directly.

On May 23, 2022, the Government announced the lifting of this ban. Almost simultaneously with this policy, in May 2022, there was a downward trend in world crude palm oil (CPO) prices. This decline in CPO prices was not followed by a decline in domestic migrants prices. The price ceiling for migrants set previously by the government was also not corrected despite the continuing downward trend in world CPO prices. On the other hand, farmers' FFB prices actually experienced a decline in prices. In some areas, such as in Tebo, Jambi Province, FFB is only valued at IDR 600.00/kg. This condition creates a paradox in the community, where

the price of remains high, while the FFB of oil palm farmers is valued lower than the price set by the local government.

CONCLUSION

The conclusions that can be drawn from the various analyses above are as follows:

1. Based on the analysis of Large and Medium Industry Data from the Central Bureau of Statistics:
2. There was an increase in the value of Indonesia's CPO production from 2013-2015.
3. The number of large companies producing CPOs increased from 2013-2015.

By using the market concentration calculation method (CR4) and Herfindall Index, the level of business competition among CPO-producing companies shows a low level of competition.

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