A Study about Indonesia’s Crude Coconut Oil as Export Commodity

Widya Astuti¹; Arie Kusuma Paksi²

¹ Master of International Relations, Universitas Muhammadiyah Yogyakarta, Indonesia
² Lecturer of Master of International Relations, Universitas Muhammadiyah Yogyakarta, Indonesia

http://dx.doi.org/10.18415/ijmmu.v9i9.4142

Abstract

Coconut as one of the most consumed commodities in the global market is considered an important commodity in international trade. In Asia and European Union, coconut is processed in various forms, one of which is known as crude coconut oil (CCO). Although its commodity prices are considered low in international trade, the demand for CCO is relatively stable. Philippines is the current top exporter of CCO, followed by Indonesia, Sri Lanka and Papua new guinea, while the Netherlands is the current top importer of CCO followed by Malaysia, the United States and Germany. Therefore, this market presents an opportunity for Indonesia to develop their crude coconut oil production. Therefore, we would like to share the results of our qualitative study regarding this topic to enhance the knowledge about the conditions and prospects of this commodity and what barriers prevent Indonesia from developing their CCO market by using competitive advantage theory. The theory will be combined with CCO Indonesia as the case study. The results of this study we hope can be used as a reference to develop Indonesia's crude coconut oil exports in the international trade.

Keywords: International Trade; Commodity; Crude Coconut Oil (CCO); Indonesia

Introduction

Coconut is often neglected by people as an export commodity, in spite of their trade value, coconut can be processed into food raw materials for consumption and fulfillment of industrial needs. one of the coconut products is processed into crude coconut oil (CCO). CCO is crude coconut oil obtained from copra (dried coconut meat) (Pangestu et al., 2022). The world demand of coconut oil or Coconut Crude Oil (CCO) was 2.18 million tons per year in 2014(Ganda Sukmaya, 2017). Crude coconut oil imports are dominated by the Netherlands, the United States of America, Malaysia, and Germany, which occupy the position of the top four largest CCO importers in the world(ITC Trade map, 2021). while the world average per capita consumption of coconut oil was estimated at 457 kg per 1000 persons(Markets, 2022). Therefore, this market presents an opportunity for Indonesia to develop their crude coconut oil production.

Indonesia is one of the countries that should capitalize this opportunity to develop their crude coconut oil to entering international market. Coconut is included in large plantations in Indonesia with a plant area of 167.7 thousand ha in 2016-2021. Indonesia was able to produce 160.7 thousand tons of
coconut in 2016-2017 (Badan Pusat Statistik, 2021b). Indonesia able to exports crude coconut oil in Netherlands, the United States of America, Malaysia, and Germany. Indonesia as one of the largest producers of crude coconut oil must pay more attention to the right market opportunities of the destination countries for crude coconut oil exports (Pangestu et al., 2022). The development of CCO export volume in Indonesia decreased in 2015, 2016 and 2017, but in 2018 it showed a significant increase in export volume by 54 percent (Pangestu et al., 2022). If Indonesia intent to capitalize on this sector, Indonesia can play a bigger role in the international market.

Indonesia is an agricultural country that is able to produce agricultural products of export value, one of which is coconut. The process of processing coconut commodities that are commonly produced by processing farmers is copra products. Copra products are raw materials for coconut oil processing plants in the form of Crude Coconut Oil (CCO) which can be processed into higher quality products such as refinery oil, bleaching and deodorize (RBD) (Ridwan & Nugroho, 2013). The high potential use of CCO will certainly be very promising and able to increase the market, especially in industrialized countries.

Indonesia has the potential to develop CCO exports to international markets and export destination countries (Yulhar & Darwanto, 2019).

CCO is one of the alternatives to vegetable oil producers that are environmentally friendly and do not compete too much as a staple food ingredient (Ganda Sukmaya, 2017). Indonesia exports CCO to importing countries in the form of semifinished goods as raw materials for other high-value derivative goods. Therefore, the demand for CCO is inseparable from the demand for derivative products made from coconut oil. The export destination country for CCO products is the Netherlands (Informasi & Bisnis, 2019). This can be seen in the growth in demand for Indonesian crude coconut oil (CCO) by the Netherlands. CCO Indonesia is one of the potential export products in Indonesia (Aulia et al., 2020). The development of Indonesia's average crude coconut oil export volume from 2009 to 2018 in seven destination countries shows that the Netherlands is an export destination country that has the largest percentage compared to other countries of 37 percent (Pangestu et al., 2022). While other countries that are the destination countries for exports of Indonesian CCO products include Malaysia at 28 percent, the United States at 16 percent, China at 11 percent, Ukraine at 3 percent, Thailand at 1 percent, India at 1 percent, and the rest are exported spread to several other parts of the world (Pangestu et al., 2022).

Traditional markets are Indonesia's partner countries such as the United States (US) and Western Europe which have had strong economic cooperation relations for a long time (Sabaruddin, 2017). This includes economic relations, where trade and investment are very important dimensions (Irawan & Kertasasmita, 2015). The Netherlands is the gateway country for various products to Europe (Informasi Kegiatan PPEJP, 2021). The development of specialization means also the development of trade, since not all the resources used to produce goods and services can be obtained domestically, as a result of which trade between countries will increase rapidly (Muhdar, 2018). countries that are not capable of self-producing can import from other countries (Eksekutif, n.d.). One of Indonesia's agricultural commodities that has the potential in the international market is CCO (Nurhayati et al., 2019). CCO products in importing countries are used as raw materials for the food and non-food industries. The food industry that uses CCO, one of which is coconut cooking oil, while the non-food industry uses CCO as a raw material, namely cosmetics, soap, shampoo, cream and others. The increasing demand for these products will result in the industry increasing its output so that CCO imports are greater (Darusman et al., 2013).

Literature Review

In this paper, the researcher uses several literatures as a reference in getting a new perspective. Among these articles are, first; Imanuel do Rosário Ximenes and Rita Nurmalina and Amzul Rifin with the title “Demand Analysis of Indonesia’s Coconut Crude Oil in Germany” (do Rosário Ximenes et al., 2021) This research examines despite Indonesia being the world's largest coconut producing country, the competitive position of coconut crude oil (CCO) is still weak in the international market. Indonesia
determine a potential market that plays a significant role in the coconut oil industry. This study using the LA/AIDS model to analyze the Indonesian competitive position in Germany. The results of this research are that Indonesia had a strong market position.

The second research entitled “Analysis of Indonesia's Coconut Crude Oil Demand in the International Market” by syahrul ganda sukmaya (Ganda Sukmaya, 2017). This research examines information about The world demand of coconut oil or Coconut Crude Oil (CCO) was 2.18 million tons per year in 2014. This study using AIDS (Almost Ideal Demand System) and Revealed Comparative Advantage (RCA) to analyze the market demand of crude coconut oil. This study used data of Indonesian crude coconut oil exports and other exporting countries in international market from 1984 to 2015. The result of this research showed that Indonesian coconut crude oil commodities has a comparative advantage in international market

The third research entitled “Competitiveness and Export Similarity of Indonesia’s Coconut Oil” by Anisa Nurina Aulia, Nur Chasanah, Agus Subhan Prasetyo, Ara Nugrahayu Nalawati (Aulia et al., 2020). This study examines Coconut oil is one of the vegetable oils that became potential export product in Indonesia. The purpose of this research are knowing the position of crude coconut oil with HS Code 151311 and its derivative with HS Code 151319 compared to the competitors during 2001 to 2017. This study using the Revealed Comparative Advantage (RCA), Acceleration Ratio (AR), Trade Specialization Index (ISP) and Export Similarity Index (ESI). The results of this research show that Indonesia has high competitiveness.

**Research Question**

There is a great deal of research on crude coconut oil in Indonesia. Several researchers conducted research on the demand for Indonesian crude coconut oil in Germany. There are some who write about the demand for Indonesian crude coconut oil in the international market. Some also research on the competitiveness and similarity of Indonesian raw coconut crude oil exports. From these studies, the authors are interested in examining how the development of Indonesian raw coconut crude oil as an export commodity. Given the current reality of crude coconut oil has many benefits both for consumption as a food ingredient and as a fulfillment of industrial needs. Whether Indonesia's crude coconut oil will remain an export commodity and still have the competitiveness of other countries. This research question will be discussed in the discussion session in the next section.

This paper will try to figure the Indonesia’s crude coconut oil as export commodity in general using the case of Indonesia in developing the crude coconut oil HS code 151311 by analyzing the competitiveness of Indonesia. From this research, we hope that our conclusion could become a further reference and recommendation for the development of crude coconut oil in Indonesia. The success of the efforts could be measured by using certain parameters such as the increase of production in this sector, and the increase of amount and value of crude coconut oil export from Indonesia to other country.

**Indonesia Crude Coconut Oil Competitiveness**

Before entering international crude coconut oil market, we must analyze the competitiveness of Indonesia in term of crude coconut oil commodity first. By analyzing five competitive advantage indicators of Indonesia to enter the coconut crude oil market in international trade we could conclude what sector must fixed or further enhanced by government or other stakeholders.

The first factor to considered is competitor countries, this factor account for all countries that competing in the commodity market. Competing country is all country that exporting crude coconut oil to the international market. In line with that description we will then look at the biggest exporter and nearest competitor by geographical position for Indonesia crude coconut oil trade.
The international crude coconut oil market is now controlled by Philippines with $986,056 export value on 2021. Indonesia followed Philippines with value export around $420,279 on the same year (ITC Trade map, 2021). The countries with the highest volumes of coconut oil consumption in 2018 were the U.S (507K tonnes), Indonesia (443K tonnes) and India (385K tonnes), with a combined 38% share of global consumption (Markets, 2022). With the high rate of consumption, Indonesia still managed to expand their production to international market. The condition of Asian countries is slightly different than Western countries (Ichwanda et al., 2019). Asian countries such as Philippines, Indonesia is also among the largest producer of crude coconut oil in the world. On the other hand western countries they still struggled to fulfill their domestic market demand. They still import a lot of crude coconut oil from other countries in order to fill their deficit. The countries that still import crude coconut oil is Netherlands, followed by Malaysia, United States of America, and Germany.

However, some countries in Asia are already able to expand their production to the international market. Based on the chart shown in figure 1, Philippines is the number one rival of Indonesia to export crude coconut oil. Philippines that already able to export crude coconut oil 657,705 tons on 2021 than Indonesia export 278,799 tons of crude coconut oil on the same year. However, if that number compared to other exporter countries such as Sri Lanka and Papua New Guinea their export is still far behind.
The second factor, namely consumer focused on how the condition of Crude coconut oil consumption both locally and globally. Based on the chart shown in figure 2, list of importers of crude coconut oil is Netherlands, followed by Malaysia, united states of America, and Germany. Countries that import a commodity have several reasons, one of which is the fulfillment of the consumption needs of its people or for the fulfillment of industrial needs. Consumption of crude coconut oil in 2021 by netherland is 336,818 tons, followed by Malaysia 215,267 tons, united states of America 176,325 tons and Germany 129,591 tons (ITC Trade map, 2021). In Indonesia, consumption of crude coconut oil is around 443K tonnes on 2018.

The positive trend of Indonesia's crude coconut oil exports, and the increase in world crude coconut oil consumption shows that the market potential is still high, making the international market will be dominated by countries that have competitiveness (Pangestu et al., 2022). Vegetable oils derivatives are an indispensable commodity in the world food oil trade. Demand for vegetable oils in the world continued to rise gradually. Recently, coconut crude oil was one of the vegetable oils that dominated the world's food oil based on health issues (Ximenes et al., 2022). Coconut crude oil also can be used as a raw material for the food and pharmaceutical industry (Ximenes et al., 2022). In Indonesia, crude coconut oil competes with palm oil, which has a greater demand. However, crude coconut oil also has its own advantages because the price is relatively cheap when compared to the price of other vegetable oil derivatives.

**Figure 3. production Sub-sektor Perkebunan (Estate Crops Sub-sector) coconut**

**Source : Statistical Yearbook of Indonesia 2021 (Badan Pusat Statistik, 2021a)**

The third factor is production power, this factor is about the power of production sector in one country (Ichwanda et al., 2019). Indonesia is the world's largest coconut producer compared to the Philippines and India (Pangestu et al., 2022). Coconut can be processed into food ingredients and meet...
A Study about Indonesia's Crude Coconut Oil as Export Commodity

Indonesian Crude Coconut Oil is obtained from copra dried coconut meat(Pangestu et al., 2022). Crude coconut oil is derived from Animal/vegetable fats and oils. This commodity is the most exported commodities throughout 2020 Animal/vegetable fats and oils US$ 20.72 billion(Lidya Julita Sembiring, 2021). Agricultural export activities that have been Indonesia's leading product and a challenge for Indonesia to produce more competitive goods(Hastarini Dwi Atmanti, 2017). Crude coconut oil is Indonesia's leading export product and is the second-largest export in the world(Pangestu et al., 2022). The increase in world consumption of crude palm oil is an opportunity for Indonesia to increase exports of crude coconut oil(Ximenes et al., 2022). Indonesia's contribution reached 31 percent or 18.98 million tons of the total world coconut production(Pangestu et al., 2022). Indonesia is the world's second largest producer of coconut oil in 2018 with a production of 1,005,000 tons with a contribution of Indonesian coconut oil production to the world of 27 percent(Pangestu et al., 2022). Indonesia is the world's second largest coconut producing country in the world, Indonesia is able to export coconuts From the total value of world coconut exports in 2019 which was US$ 11.6 billion, Indonesia controls US$ 2.17 billion (HIPKI, 2021).

Crude Coconut Oil is obtained from copra dried coconut meat(Pangestu et al., 2022). Crude coconut oil is a derivative of Animal/vegetable fats and oils. This commodity is the most exported commodities throughout 2020 Animal/vegetable fats and oils US$ 20.72 billion(Lidya Julita Sembiring, 2021). Agricultural export activities that have been Indonesia's leading product and a challenge for Indonesia to produce more competitive goods(Hastarini Dwi Atmanti, 2017). Crude coconut oil is Indonesia's leading export product and is the second-largest export in the world(Pangestu et al., 2022). The increase in world consumption of crude palm oil is an opportunity for Indonesia to increase exports of crude coconut oil(Ximenes et al., 2022). Indonesia's contribution reached 31 percent or 18.98 million tons of the total world coconut production(Pangestu et al., 2022). Indonesia is the world's second largest producer of coconut oil in 2018 with a production of 1,005,000 tons with a contribution of Indonesian coconut oil production to the world of 27 percent(Pangestu et al., 2022). The export volume of Indonesian crude coconut oil showed a positive trend of 4.2 percent, although there was a decline in 2017, but rose again in 2018 (Pangestu et al., 2022). Crude Coconut Oil production in 2009 to 2018 tends to fluctuate with an average growth of 0.09 percent(Pangestu et al., 2022). The production problem faced by the small coconut oil industry is the price of raw materials for fresh coconut meat which is quite volatile. When the price of fresh coconut meat rises, the price of coconut oil increases(Ir. Sere Saghranie Daulay, 2015). As the largest coconut producer, Indonesia has an opportunity to increase its export in the world market, Indonesia has become the largest coconut-producing country globally, with an average of 18.3 million tons per year(FAOSTAT, 2021). Indonesia requires obtaining a policy that can benefit both coconut farmers and industries in trade flows(Ximenes et al., 2022). The low income of coconut farmers and the coconut industry is caused by the low supply of industrial raw materials, monoculture planting systems, inefficient supply chains, price fluctuations, limited product diversification, and low quality (Alouw & Wulandari, 2020)

**Figure 4. List of exporters for the selected product 151311 crude coconut oil 2017-2021**


The last factor is new competitor, this factor focuses on the coming threat from the emerging of another competitor besides the existing competitor that have already been analyzed (Ichwanda et al.,
2019). However, the new competitor in crude coconut oil trade is the old countries who hold a small portion in crude coconut oil trade and started to develop crude coconut oil industries as its export commodity. The example of the new competitor is Sri Lanka and Papua New Guinea. Sri Lanka makes coconut and processed products such as Crude Coconut Oil a superior export product (Pangestu et al., 2022). Sri Lanka currently tried to develop their crude coconut oil production to enter international market. On the other side, Papua New Guinea replacing Malaysia's position as the four largest exporting countries of crude coconut oil in the world.

**Research Analysis**

The competitive advantage of Indonesian crude coconut oil has the opportunity to compete in the international market. Indonesia takes advantage of the geographical situation that is able to produce coconuts in a large number of times. Indonesia is able to become the largest coconut producing country in the world. Despite Indonesia's export ranking in the world which occupies the second position after the Philippines, Indonesia still has a competitive advantage to develop crude coconut oil as an export commodity. This can be seen in the total exports carried out by Indonesia. Crude coconut oil is included in the first position in Indonesia's Animal/vegetable fats and oils derivatives whose export value is the largest in 2021.

In order to answer the question of this research, we use competitive advantage as the basic theory. Competitive advantage examines the efforts to seek competitive positions that are advantageous in an industry and a fundamental arena where competition will take place (Michael E. Porter, 1990). Indonesian crude coconut oil has competitive advantage. Which in Indonesia develop crude coconut oil as export commodity in international market. Competitive advantage basically grows from the value or benefits that can be created by a company or country for its buyers that are more than the costs that must be incurred by companies or countries in creating it (Michael E. Porter, 1990). Indonesia is able to produce coconut in large quantities. Although domestic coconut consumption is high, Indonesia is still able to export coconut to several Asian and Europe countries.

In this paper the author uses competitive advantage strategy as a basic framework in conducting a competitive advantage analysis of the trade of Indonesia’s crude coconut oil in international market. There are five points emphasized by Porter in his theory of competitive advantage. strategy that includes the country’s ability to compete in international trade, assesses five factors that determine each other’s competition, including: Competitor countries, consumers, producers, substitution products, and new competitors (Ichwanda et al., 2019). The structure of competition that is created causes the state to be able to use its strategy so that sustainability in the international trade system is maintained.

International relations have always tended to be something of an internal-(or at least multi-) discipline, encompassing elements of geography, economics, history and politics in particular (Jill Steans & Lloyd Pettiford, 2009). International relations refers to the practice of politics, the world economy, and so on. Economic relations have been globalized in the sense that when there is an economic recession in a country then the depression can spread throughout the world (Jill Steans & Lloyd Pettiford, 2009). International relations with respect to countries and the way they relate to each other there are difficulties to provide justification in an effort to make firm distinctions between international, regional, and national. And prefer to use freer terms such as "world" or "global" politics (Jill Steans & Lloyd Pettiford, 2009) Sources of capital for developing countries include national savings. Foreign investment, trade and foreign aid.(Olton, 1999).International trade can be defined as trade activities carried out by residents of a country with residents of other countries on the basis of mutual agreement(Ekananda, 2014). International trade can be defined as trading activities carried out by residents of a country with residents of other countries based on mutual agreements(Pangestu et al., 2022). International Trade is trade carried out by residents of a country with residents of other countries on the basis of mutual agreement.
Conclusion

Based on the results and discussion in the research, we can conclude that; crude coconut oil are one of the export commodities from plantations in Indonesia. The export of crude coconut oil is influenced by the world's need for crude coconut oil that continues to increase every year. Crude coconut oil Indonesia analyzed as having better competitive advantage over other countries in Asia and Europe. It is clear that crude coconut oil has big value and opportunity as highlighted by competitive advantage theory. As one of the biggest export markets potential in Asian and Europe countries especially in netherland, crude coconut oil can be one of the source for economic development in Indonesia. Now it is time to government, people, and other actor to see and realize the opportunity of crude coconut oil to become the export commodities in Indonesia.

Realizing this potential, a more excessive effort is needed to maximize the potential of the crude coconut oil itself. However, a lot of researches need to be conducted, especially in order to set the standard and improving the quality of the crude coconut oil itself. Another factor which is still need to be considered is the competitor countries, as they already have established market, and have fulfilled the demand from the customers for a long time ago hence they have a better institution and regulation. While there are obstacles toward the objectives, as long as the consumers and the producers of crude coconut oil still shows significant demand, there is potential for the market to grow. Another problem may arise if the quality of the product itself is not controlled; this can be prevented by correctly implementing the content of value chain into the production steps and phases. By ensuring the quality of the product, the realization of crude coconut oil as an export commodity from Indonesia to Asia market and Europe is both viable and achievable. Crude coconut oil is commodity ranked 1st as a commodity with a big export in 2021. Indonesian crude coconut oil has competitiveness in international trade, also the trade between countries in the export and import of crude coconut oil. Indonesian crude coconut oil has a competitive advantage because export activities are growing every year.

References


Badan Pusat Statistik. (2021a). Statistical Yearbook of Indonesia 2021. https://www.bps.go.id/publication/download.html?nrbfvefe=OTM4MzE2NTc0Yzc4NzcyZjI3ZTltNDC3&xznna=HR0cHM6Ly93d3cuYnBzLmdvLmlkL3B1YmxpY2FsOaW9uLzIwMjEvMDIvMjYvOTM4MzE2NTc0Yzc4NzcyZjI3ZTltNDctN0YXRpc3RpcyVmbvbVzaWEtMjAyMS5odG1s&twoadfnoarfeauf=MjAyMi0wOS0

Badan Pusat Statistik. (2021b). Statistik Indonesia 2021. https://www.bps.go.id/publication/download.html?nrbfvefe=OTM4MzE2NTc0Yzc4NzcyZjI3ZTltNDC3&xznna=HR0cHM6Ly93d3cuYnBzLmdvLmlkL3B1YmxpY2FsOaW9uLzIwMjEvMDIvMjYvOTM4MzE2NTc0Yzc4NzcyZjI3ZTltNDctN0YXRpc3RpcyVmbvbVzaWEtMjAyMS5odG1s&twoadfnoarfeauf=MjAyMi0wOS0


Eksekutif, R. (n.d.). *Produk Potensial Untuk Pasar Ekspor Terpilih* :


**Copyrights**

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).