

COMPETITIVENESS ANALYSIS OF INDONESIAN CINNAMON EXPORTS IN THE WORLD MARKET

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ABSTRACT

Cinnamon is one of the leading plantation commodities that is most widely exported among other types of plantation products. Since the 1990s, Cinnamon has been in demand not only by the domestic market but also the world market so that it has become a potential plantation export commodity for Indonesia. This study aims to analyze the comparative and competitive advantages of Indonesian cinnamon exports in the world market, as well as the development and projection of Indonesian cinnamon exports in the world market. The study was conducted from January to March 2022. The research method uses a descriptive quantitative method with a Secondary Data Analysis (SDA) approach. The type of data used in this study is secondary data in the form of a time series in the form of data on Indonesian cinnamon exports to the world market for the period 2011 - 2020 which comes from various sources. The data analysis method uses exponential trend analysis to answer the development of Indonesian cinnamon exports and projections in the world market, the Revealed Comparative Advantages (RCA) analysis to analyze the comparative advantages of Indonesian cinnamon exports, as well as the Export Product Dynamic (EPD) method and the Trade Specialization Index (ITS) are used to determine the competitive advantage and performance of a commodity. The results showed that the competitiveness of Indonesian cinnamon exports for export destination countries of the United States, the Netherlands, Vietnam, Brazil, and Thailand had a strong competitiveness, indicated by the RCA value of 19.82. Export Product Dynamic (EPD) that often appears during the period 2011 - 2020 in the five export destination countries is rising star, then retreat, falling star, and the least appearing is lost opportunity. The results of the ITS analysis with a positive value of 0.92 show that Indonesia has a tendency to be a net exporter country. Cinnamon exports to the world market in 2011-2020 had an increasing trend every year and are projected to increase for 2021-2025.

Keywords: *cinnamon, competitiveness, EPD, ITS, RCA*

BACKGROUND

Indonesia as an agricultural country relies on the agricultural sector as the largest contributor to state income among other sectors, with the plantation subsector contributing the most with a total of 38.45% to Gross Domestic Product from 2014-2019 (Badan Pusat Statistik, 2020). The data shows that Indonesia's plantation subsector is considered capable of contributing income to Indonesia in the export-import market for plantation commodities with other countries. One of the main commodities for Indonesian plantations that has considerable potential in export is Cinnamon. Indonesia's contribution in supplying the world market cinnamon needs was 26.6% in 2018. The average production of Indonesian Cinnamon itself is 92,353 tons with an average export on the world market of 47,550 tons over the last 10 years (BPS, 2020). The main result of Cinnamon is in the form of bark which can be used as a spice for flavoring food, twigs and leaves which are widely used for essential

oils and oleoresins in the pharmaceutical industry, cosmetics, foods, beverages, and so on (Iswarini and Sutarmo, 2013).

Indonesia is rich in plantation potential with Cinnamon as one of the commodities that has strategic potential in developing the national economy. Indonesia's cinnamon production volume in 2014 was 91,400 tons with a land area of 109,600 hectares (BPS, 2020). Indonesia's cinnamon production volume is relatively increasing every year, but its export volume tends to stagnate at 40,000-50,000 tons. Even so, the export value of Indonesian Cinnamon on the world market in the last 10 years has a performance that tends to increase. According to BPS (2020) the FOB value for Cinnamon has increased several times as was the case in 2016 from 94,155 US\$ to 148,076 US\$ in 2017 but often also decreased. The decrease in Indonesia's cinnamon export volume was shown in 2018 by 41,380 tons to 36,765 tons in 2019. This raises questions about the actual competitiveness of Indonesia's cinnamon exports in the world market when compared to other exporting countries as well as trends and projections of the development of Indonesian cinnamon exports in the world market.

RESEARCH METHODS

Data analysis method used in this study is a quantitative method which includes an exponential trend analysis tool to analyze the development trend of Indonesian cinnamon exports in the global market for the period 2011 - 2020 and projections of Forecasting Indonesian cinnamon exports in the world market for the next 5 years. The Revealed Comparative Advantages (RCA) is a tool to analyze the comparative advantages of Indonesian cinnamon exports in the world market. Export Product Dynamics (EPD) was used to analyze the competitive advantages of Indonesian cinnamon exports, as well as the Merchant Specialization Index (ITS) to analyze competitive advantages and the development stage of Indonesian cinnamon exports.

Revealed Comparative Advantages (RCA)

The concept of Revealed Comparative Advantages (RCA) analysis is to produce an overview of the export performance of a product from a country measured by calculating the share of the export value of that product to a country's total exports compared to the share of the value of the product in international trade which shows the competitiveness of a country (Utami, 2017).

$$RCA_{ik} = \frac{X_{ij}/X_{it}}{X_{wj}/X_{wt}} \quad (\text{Samah, 2018})$$

Information:

- X_{ik} : Export value of Cinnamon from Indonesia (tons)
- X_i : Total export value from Indonesia (ton)
- X_{wk} : World export value of cinnamon commodity (tons)
- X_{wt} : Total export value of world cinnamon (tons)

If the RCA value of commodity j in country i is greater than one (>1), it indicates that the country has a comparative advantage for that commodity in international trade. Conversely, if the RCA value is less than one (<1), then the country i has a smaller comparative advantage for the commodity in international trade (Purnamasari, 2014). The RCA value that is smaller than 1 or close to 0 then indicates that the country has a weak competitiveness in the commodity compared to other countries (Hardiansyah et al., 2015).

Export Product Dynamic (EPD)

Export Product Dynamics (EPD) analysis is one of the indicators of measuring competitiveness by measuring the market position of a country for certain market goals as well as the rapid growth of products or goods in the flow of export trade in a country (Pradipta and Firdaus, 2014). This method can measure the dynamics of a commodity product in the international trade market. Based on the position of market competitiveness, EPD appraisal is divided into 4 categories (quadrants) namely rising star, falling star, lost opportunity, and retreat (Pradipta and Firdaus, 2014). The rising star category means that the position of Indonesia's cinnamon market share has increased and the demand for Cinnamon in the world is increasing, falling star is interpreted as an increase in the share of exports in the destination country but in the global market the condition is a decrease in the share of exports or is not dynamic, lost opportunity is a condition of a decrease in market share in domestic products while the global market share has increased, and retreat is the position of domestic market share not in demand by the global market and at the same time exports of products to destination countries have also decreased.

The results of the cinnamon competitiveness analysis using EPD will be in one of the four quadrants. The position of commodities is influenced by the attractiveness of the market and the strength of the commodity business. With the competitiveness matrix using EPD, it can be seen the competitive position of Indonesian cinnamon exports in the international trade market.

Table 1. Competitiveness Position Matrix with EPD Method

Share of Indonesian Cinnamon Exports in Destination Countries (X)	Export Share of Indonesian Products in Export Destination Countries (Y)	
	Rising (+)	Falling (-)
Rising (Competitive) (+)	Rising Star	Falling Star
Falling (Uncompetitive) (-)	Lost Opportunity	Retreat

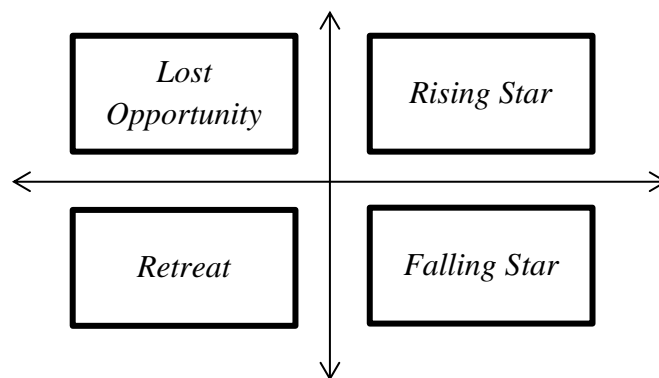


Illustration 1. Market Appeal and Business Strength in EPD

Export Product Dynamics (EPD) can be calculated using the following formula (Nurhayati, 2020).

$$X = \frac{\frac{X_{jt}}{X_{wt}} \times 100\% - \frac{X_{jt-1}}{X_{wt-1}} \times 100\%}{T}$$

$$Y = \frac{\frac{\sum X_{ajt}}{\sum X_{awt}} \times 100\% - \frac{\sum X_{ajt-1}}{\sum X_{awt-1}} \times 100\%}{T}$$

Information:

- X_{jt} : Export value of Indonesian Cinnamon to country j in year t
 X_{jt-1} : Export value of Indonesian Cinnamon to country j in year t-1
 X_{wt-1} : Export value of world Cinnamon in t-1 year
 $\sum X_{ajt}$: Total value of exports of Indonesian products to country j in year t
 $\sum X_{awt}$: Total value of exports of all world products in the year t
 $\sum X_{ajt-1}$: Total value of exports of Indonesian products to country j in the year t-1
 $\sum X_{awt-1}$: Total value of exports of all world products in the t-1 year
t : T-th year
t-1 : Previous year
T : Number of years of analysis
Y Axis : Export share of products in export destination countries

Indices Trading Specialization (ITS)

ITS is an assessment used to analyze the competitive advantage, position and stages of development of a country's export commodity so that it can be seen whether the country is classified as an exporter or importer. The ITS formula is as follows :

$$ITS = \frac{X_{ij} - M_{ij}}{X_{ij} + M_{ij}} \text{ (Tambunan dan Tulus, 2003).}$$

Information:

- X_{ij} : The export value of cinnamon commodities by the country i.
 M_{ij} : The value of imports of Cinnamon commodities by country i.

The measurement of the value of ITS is positive ($0 \geq 1$), then the country tends to be classified as an exporter. A negative ITS value ($-1 \leq 0$), can be interpreted that the country tends to be classified as an importer of a commodity or it can be interpreted as having weak competitiveness (Ariesha et al., 2019). The value of ITSs is also used to identify the growth rate of a commodity in international trade. ITS measurement will identify the growth rate of a product or item in trade into 5 stages as follows:

1. Recognition stage, if the ITS value is between -1 to -0.50. The introduction stage indicates that the competitiveness of a country is low and tends to be classified as an importer. This stage is shown that when the forerunner country carries out the export of products and the latecomer country carries out imports from the country.
2. Import substitution stage, if the ITS value is between -0.50 to 0.00. This stage occurs because the non-achievement of economies of scale in a country is due to the low level of production compared to the demand for the commodity.
3. Export expansion stage, if the ITS value is between 0.01 to 0.80. This stage the domestic supply of products is higher than its domestic demand so that the exporting country can start to increase export volumes and increase the scale of production.
4. Maturation/ Maturation Stage, if the ITS value is between 0.81 to 1.00. This stage shows that a country at the stage of export maturity is a country and has begun to apply quality and technological standards in indicating the level of competitiveness of the country. (Ministry of Commerce, 2012).
5. Re-import stage, if the ITS value again decreases from 1.00 to 0.00. This stage shows that the competitiveness of a country for a product is weak where the level of domestic production

decreases and cannot meet the need for products in the domestic market. The state in this case its competitiveness is weak, it is inferior to other countries in the same commodity (Tupamahu, 2015).

Exponential Growth Analysis

Trends are a picture of long-term data behavior, both declining, increasing and fixed (Sugiarti, 2020). An exponential trend is a trend whose rank or exponent comes from its time. Exponential growth trends need to be tested stationary. Stationarity testing is carried out graphical analysis with the help of Minitab software where to see the results of the Time Series Plot. The shape of the stationary data pattern is indicated by the direction of the chart that tends to go up or down and there is no visible trend. A non-stationary data pattern indicates that there is a trend that tends to be up or down. This trend has a tendency towards data changes increasing exponentially with the following model:

$$Y_t = \beta_0 + (1 + \beta_1)^t \text{ or } Y_t = \beta_0 e^{\beta_1 t} \text{ (Pasinggi, et al., 2020)}$$

Information:

Y_t : time series data in period t

t : time (year)

β_0, β_1 : Constant

RESULT AND DISCUSSION

Development of Cinnamon Exports

Cinnamon is one of the leading spice commodities that are most exported after pepper and ginger. Indonesia itself became one of the 5 largest exporter countries in 2020, shown an export volume of 37,207 tons with an export value of US\$ 151,295,000 (FAO, 2020). With the volume and value of these exports, Indonesia ranks fourth below other exporting countries, namely China, Vietnam, Sri Lanka and still in charge of the Netherlands in fifth place. China became a major cinnamon exporter country in 2020 with a total export volume of 86,549 tons and an export value of US\$ 292,855,000, china hereby becomes the country with the highest export value in 2020 (Trademap, 2022). Based on Trademap data (2021), during the 2011-2020 period, the development of Indonesia's Cinnamon (*Cinnamom burmanii*) exports showed an increase in export value with an average export growth of 13.73% per year. The average export volume of Indonesian Cinnamon during 2011-2020 was 46,648 tons with an average export value of US\$ 106,322,000.

The high export value of Cinnamon shows that the Indonesian cinnamon market is still in demand from foreign consumers which affects the contribution of Gross Domestic Product (GDP) and boosts the country's economy. This is in accordance with the opinion of Humaira and Rochdiani (2021) who stated that from 2002 to 2016 Indonesia has exported Cinnamon to 29 countries on an ongoing basis, the market that dominates Indonesian Cinnamon, namely the United States, Turkey, Canada, the Netherlands, Germany, Malaysia, and the United Arab Emirates. The existence of a cinnamon export market plays a role in contributing foreign exchange to the country, prospering farmers, and meeting the world's needs for Cinnamon.



Illustration 2. Development of Indonesian Cinnamon Export Volume 2011-2020.

Source: Ministry of Agriculture (2017)

Data on the volume and value of Indonesian cinnamon exports to the world market showed the highest value in 2014 with an export volume of 58,314 kg and an export value of US\$ 107,110,000. The growth of Indonesia's cinnamon export volume was shown in 2013 with a percentage increase of 30%. The high volume of Indonesian cinnamon exports in 2013 was shown by an increase in export volume from 40,403 kg to 52,507 kg in 2014. The increase in Indonesia's cinnamon export volume in 2014 was influenced by an increase in spice consumption in imported countries. This is in accordance with the opinion of Asrini et al. (2013) in 2013 a significant increase in the volume of cinnamon exports and was the highest development during 2000-2017. This is influenced by the increasing demand for spices such as Cinnamon, pepper, vanilla, ginger and others in the international market quite well, the growth of world spice consumption reaches 10.2% every year. Another factor influencing the increase in cinnamon export volume is land area. According to data from the Ministry of Agriculture (2017) there was an increase in land area from 2012 to 2013 reaching 3.6% to 109,645 m².

The development of production and land area is a support as well as capital for the development of Indonesian cinnamon exports. The increase in export volumes is also influenced by the exchange rate which is an important component in international trade. According to Asrini et al. (2021) the rupiah exchange rate against the dollar in 2013 showed a value of Rp 12,189/US\$ and continued to weaken until it reached a value of Rp 13,548/US\$ in 2017. A high exchange rate is a good opportunity to export, if the exchange rate depreciates, exporters will aggressively increase exports.

Volume and value of Indonesia's cinnamon exports during the period 2011 to 2020 were shown to decrease in 2016 by -11.15% from the previous year. According to the Database of the Ministry of Agriculture (2016), the decrease in cinnamon export volume was due to a decrease in harvested area in 2016 from 109,595 m² to 98,502 m² or by 10% in the previous year. The problem of the easy rise and fall of Indonesian cinnamon plantation land is caused by instability / shocks in cinnamon prices in the domestic and world markets. According to Nurhayani and Rosmeli (2019) stated that the low price of Cinnamon has caused many farmers to switch to crops that harvest faster or diversify their land, for example coffee and “palawija” crops.

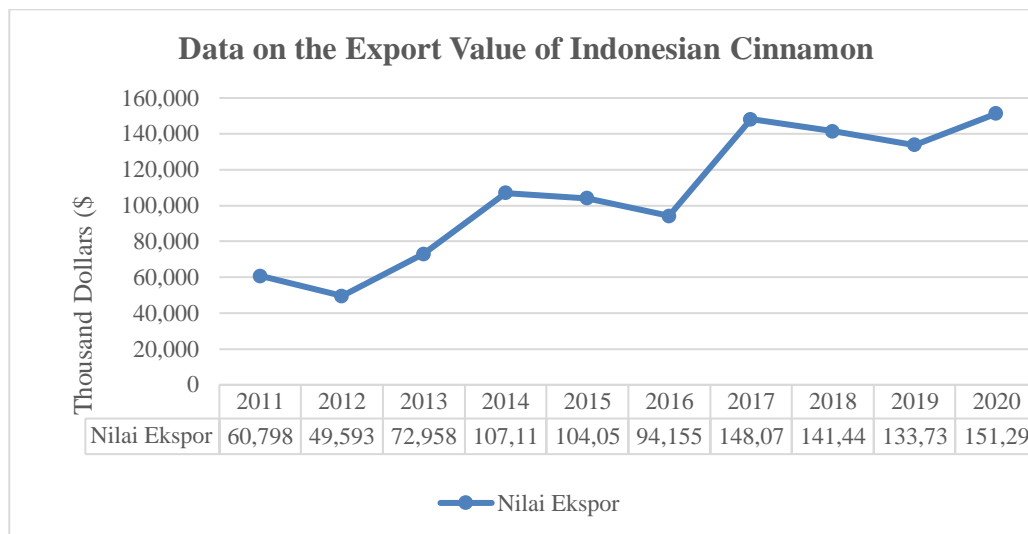


Illustration 3. Development of Indonesian Cinnamon Export Value 2011-2020

The export value of Indonesian Cinnamon shows an increasing trend from 2011 to 2020. Indonesia has the highest cinnamon export value in 2020 at US\$ 151,295,000, but this is not in line with the increase in export volume. This is due to the increase in the export price of Cinnamon where with the increase in prices, the costs incurred by the importing country become higher. According to nurhayani and Rosmeli's statement (2019), the increase in cinnamon prices started from 2013 with good quality cinnamon, which is Rp 17,000/kg. In 2016 the price of Cinnamon reached Rp 24,000/kg and in 2017 the price of Cinnamon reached Rp 32,000/kg, until it continued to increase to Rp 40,000/kg in mid-2018. Nurhayati (2020) stated that the increase in export prices made the costs incurred by the destination country higher, this resulted in a decrease in demand for Indonesian cinnamon exports.

The increase in the price of Indonesian Cinnamon, which was affected by the dollar exchange rate, also caused the volume of cinnamon exports from 2011-2020 to decrease, but the export value increased periodically from year to year. This decrease in export volume has an impact on competing countries that will be more competitive in filling demand in the importing country's market at competitive prices, as a result of which Indonesia's cinnamon market share will decrease. The solution that can be done by the government is to maintain price stability in order to increase export receipts of cinnamon commodities.

The value of Indonesia's cinnamon exports had decreased significantly in 2012 with a percentage of -18.42% from the previous year. The decline in the value of cinnamon exports is in line with the decrease in the volume of Indonesian cinnamon exports to the world market due to the decrease in the area of harvested areas in the country. According to Asrini et al. (2021) the decline in cinnamon production has occurred since 2008 and the lowest development occurred in 2012, the decline in acreage and the low selling price and income of farmers are the main problem. This condition causes farmers to only harvest when cinnamon prices begin to improve and when the opposite situation, farmers will delay harvesting cinnamon, thus affecting the volume of cinnamon exports. In the 2013 period, the development of Indonesian cinnamon exports began to progress, in terms of export prices of Indonesian Cinnamon reached Rp 53,939 / kg in 2017.

The increase in Indonesian cinnamon prices was also influenced by the Geographical Indication certification for Kerinci cinnamon from the European Union and France. This certification explains that Kerinci cinnamon as the center of Indonesian cinnamon production has internationally recognized quality. According to Asrini et al. (2021) Indonesian Cinnamon with Kerinci as its production center is recognized as having the best quality in the world based on research reports by

French and American scientists. Fierce competition in gaining market share between exporting countries is an important concern for destination countries in maintaining the quality and quantity of goods entering their countries. According to Annisa et al. (2021) who stated that the United States implements the COOL policy or country of origin labeling, which is a regulation that requires exporting countries to label products "product of" or "made in" regulated by the United States Department of Agriculture (USDA). the existence of a cinnamon quality certificate that has been recognized by the world, the export price of Indonesian Cinnamon has increased in the international trade market.

Comparative Competitiveness Analysis of Indonesian Cinnamon

The comparative competitiveness of Indonesian cinnamon commodities in the world market can be measured using the Revealed Comparative Advantage (RCA) analysis method. The RCA analysis is measured based on the value of Indonesia's cinnamon exports to importing countries compared to the value of world cinnamon exports to importing countries. The main importing countries of Indonesian Cinnamon are the United States, the Netherlands, Vietnam, Brazil, and Thailand. Indonesia's RCA value will be compared with other Cinnamon-exporting competitors, such as China, Vietnam, Sri Lanka, and the Netherlands. Based on the results of the study, the results of the RCA analysis of cinnamon exporter countries were obtained in Table 2.

Table 2. RCA Value of Exporting Countries in the World Market

Years	Revealed Comparative Advantage Value				
	Indonesia	China	Vietnam	Sri Lanka	Netherlands
2011	16,00	1,92	20,52	647,48	1,02
2012	14,67	1,60	16,56	782,98	1,08
2013	19,57	1,48	18,77	651,21	1,18
2014	24,32	1,34	21,00	467,97	1,06
2015	23,43	1,54	14,50	427,84	1,02
2016	20,52	1,36	13,57	475,21	1,46
2017	23,29	1,28	12,73	457,89	1,19
2018	20,82	1,44	14,60	420,00	1,09
2019	19,87	1,62	16,23	366,06	1,00
2020	15,70	1,92	14,34	342,47	0,77
Average	19,82	1,55	16,28	503,93	1,09

Source: International Trade Center (Processed), 2022

The study results showed that the RCA value of Indonesian Cinnamon on the world market for the 2011-2020 period had a value of more than one (>1) with an average RCA value of 19.82. The value of more than one RCA (>1) means that Indonesia, as a cinnamon exporter, has comparative competitiveness, where the higher RCA value indicates the magnitude of the country's competitiveness. According to Narulita et al. (2014) who state that a country has an RCA value greater than one (>1), it can be said that the country has a comparative advantage and is competitive over the commodity. RCA value less than one (<1) indicates the country suffered a comparative loss and was weakly competitive.

Research data shows that the RCA value of Indonesian Cinnamon shows fluctuates numbers from year to year. The average RCA value of Indonesian Cinnamon over the past ten years shows a value of 19.82, which means that the international trade market has a comparative advantage and is

strongly competitive. The highest Indonesian RCA value was shown in 2014 at 24.32 and in 2015 at 23.53 from 2011 – 2020. In 2014-2018 the RCA value was greater than 20 shows an improvement in the quality and price of Indonesian Cinnamon in the world market. According to Asrini et al. (2021), in 2014, the price of Cinnamon was Rp. 22,902 / kg and continued to increase until it reached Rp. 53,393 / kg in 2017, with an average growth of 38.58% per year.

Geographical Indication Certification by the European Union and America affects the increase in prices and the guaranteed quality of Indonesian Cinnamon. Indonesia's RCA value for the last three years in 2018, 2019, and 2020, has decreased by an average of 12% every year. This is due to the decline in Indonesia's cinnamon export volume over the past three years, with an average of 9.4% every year. When there is a decline, competing countries will compete to meet the demand of the destination country so that Indonesia's market share will decrease. The decline in export volume is not in line with the increasing value of Indonesia's cinnamon exports over the past five years.

Fluctuations in the volume and value of exports are caused by changes in the price of Indonesian Cinnamon from year to year. According to Nurhayati and Mubarokah (2014) the increase in cinnamon export prices every year causes the growth rate of export volumes to be slower than the growth rate of export value. Indonesia's cinnamon international trade market competitors are China, Vietnam, Sri Lanka, and Vietnam. The results of the RCA value analysis in the period 2011 - 2020 in Table 2 show that Indonesia is in the 2nd position among other Cinnamon exporting countries. Sri Lanka, as the country that occupies the first position, has the highest average RCA value compared to Indonesia in the second position. Vietnam is in the third position and followed by China and the Netherlands in the fourth and last position.

Sri Lanka occupies the first position with a much greater RCA value than other countries at 503.93. Sri Lanka's high cinnamon RCA shows that Sri Lanka holds a comparative advantage and has been strongly competitive over the past ten years in the cinnamon market, which is its main export commodity. Sri Lanka important history in developdevelopingso it has ear, so According to Bawappa et al. (2005), Sri Lanka's Ministry of Agriculture Exports explained that in 2009, the total area of land cultivated for Cinnamon was 29,415 ha. Some 93,767 families with about 150,000 workers are actively involved in cinnamon cultivation and are already part of the lifestyle of the people in Sri Lanka. Sri Lankan cinnamon is globally known as Ceylon Cinnamon/ True Cinnamon or the highest quality native cinnamon grown only in Sri Lanka, Madagascar, and Seychelles.

Ceylon Cinnamon, or Cinnamon native to Sri Lankais differente from other exporting countries, which is generally called cassia cinnamon. Sri Lankan cinnamon has a smooth and thin texture and forms many layers when rolled. Ceylon cinnamon in Sri Lanka has a distinctive taste that is slightly sweet and soft, so it is very suitable to be used as a dessert and spice mixture. According to FAOSTAT (2018) Sri Lanka itself politicizes the export market of ceylon cinnamon with a percentage of almost 90% in the international market. The historical superiority of the excellent quality of cinnamon and the market share of ceylon cinnamon is a strong reason Sri Lanka has a higher RCA value than other exporting countries.

Indonesia itself is in second place with an average value of 19.82 in the last ten years. This indicates that the development of Indonesian Cinnamon in the international market is going well and is strongly competitive. The high value of Indonesia's RCA in cinnamon exports over the past ten years is supported by comparative advantages such as land area, labor, production volume, and export volume. This is in accordance with the opinion of Mubarokah and Nurhayati (2020) in 2014 was the year when the development of Indonesian cinnamon exports was at its peak. This is indicated by its production volume reaching 91,400 tons and its export volume of 58,314 tons and the land area reaching 109,645 m².

Unlike Sri Lankan cinnamon, Indonesian Cinnamon is known as cassia cinnamon or Java cinnamon. Cassia has a stronger flavor and a rougher texture than ceylon cinnamon from Sri Lanka.

The difference in quality with ceylon cinnamon does not make cassia from Indonesia, not in demand in the international market. With a lower selling price and high quantity of Sri Lankan cinnamon, cassia cinnamon is in great demand in the world market, especially the American and European markets, which are slowly replacing Sri Lanka as the main exporter of ceylon cinnamon. The differences between ceylon cinnamon and cassia cinnamon can be seen in Table 3.

Table 3. Differences between *ceylon cinnamon* and *cassia cinnamon*

	<i>Ceylon cinnamon</i>	<i>Cassia cinnamon</i>
Plant name	<i>Cinnamomun zeylanicum</i>	<i>Cinnamomum aromaticum</i> ; <i>Cinnamomum cassia</i>
Other names	Cinnamon, true Cinnamon, Mexican Cinnamon	Kayu manis Cina, Tung Hing
Country of origin	Sri Lanka	Cina, Indonesia, Vietnam
Taste	Light, delicate, and sweet taste aroma	Strong, tangy, and very spicy taste
Coumarin content	0,0004%	5%
Effects on Health	Generally safe	Known causes of liver and kidney disease
Price	Relatively expensive	Relatively inexpensive

Source: Piyasiri and Wijeratne (2016)

Vietnam occupies the third position with an average RCA value of 16.28, this makes Vietnam a competitor to Indonesia as an exporter of Cinnamon in the ASEAN region. According to Senaratne and Pathirana (2021) Cinnamon from Vietnam has the name Saigon Cinnamon which is still one type with cassia but the processing method is different. Vietnam in 2017 produced Saigon cinnamon of 29,388 tons with a total export of 13,834 tons. The main market destinations of Vietnam's cinnamon exports are the United States and several European destination countries.

China became the fourth-placed country with an average RCA value of 1.55 over the past 10 years, although its RCA value was not as large as other countries China continued to improve the quality and quantity of its cinnamon exports so that it ranked first as a cinnamon exporter. Trade Map data (2021) shows cinnamon exports with a value of US\$ 292,855,000 in 2020, an increase of 80.68% from the previous year. Cinnamon produced by China is the same as cassia cinnamon produced by Indonesia and Vietnam called Chinese Cinnamon. Sa'diya and Darwanto (2020) stated that the development of China's cinnamon exports initially still did not focus on the international trade market because it still had to meet domestic cinnamon demand, whose consumption level was still very high, for example in 2008, 2010 and 2012, it showed that domestic consumption of Cinnamon in China was in order, namely 35%, 75%, and 45%, over time China then began to improve and increase the productivity of Cinnamon. Sa'diyah and Darwanto (2020) added that an increase in domestic cinnamon consumption in a country can reduce its competitive performance if the country does not increase production. Therefore, China must increase production by increasing its productivity to meet domestic needs and needs in the international market which tend to increase every year.

The Netherlands became the fifth-placed country with an average RCA score of 1.09. The Netherlands RCA value indicates that it is quite competitive because it is still above the value of one (>1). Based on Trademap (2021) the Netherlands itself is a country that imports and exports cinnamon on the world market, this is due to the limited agricultural land owned by the Netherlands. The Netherlands itself is one of the main importers of Cinnamon from Indonesia after the United States. According to Yuwono et al (2016) a country will position itself to export certain commodities when it has a comparative advantage over certain commodities/ goods. On the contrary, a country will

choose to import a commodity /product when the country does not have a comparative advantage. The Netherlands, in its cinnamon trading activities, imports a lot from Indonesia and Vietnam, which are then exported back to destination countries in European countries such as Germany, Austria, France, Belgium, and others countries.

Competitiveness Analysis and Market Position of Indonesian Cinnamon

The competitiveness of Indonesian cinnamon commodities in the world market can be measured using the Export Product Dynamic (EPD) analysis method. This method measures the export market position of Indonesian cinnamon commodities in the main destination markets studied, namely America, the Netherlands, Vietnam, Brazil, and Thailand. The market position is determined based on the calculation results on the X axis using data on the export value of Indonesian Cinnamon to the main importing countries against the value of world cinnamon exports. The calculation of the Y axis based on the total value of Indonesia's exports to importing countries against the total value of world exports. The results of the analysis of the competitiveness of Cinnamon will be in one of the four quadrants. The market position depends on the market's attractiveness and the commodity's strength. Based on the study results, the EPD competitiveness position results were obtained as in Table 4.

Table 4. Competitive Position of Indonesian Cinnamon EPD to Importing Countries

Year	Competitive Position of Export Product Dynamic (EPD)				
	USA	Netherlands	Vietnam	Brazil	Thailand
2011	Retreat	Rising Star	Lost Opportunity	Falling Star	Lost Opportunity
2012	Retreat	Retreat	Retreat	Falling Star	Rising Star
2013	Rising Star	Falling Star	Rising Star	Retreat	Falling Star
2014	Rising Star	Falling Star	Rising Star	Falling Star	Retreat
2015	Lost Opportunity	Retreat	Lost Opportunity	Falling Star	Rising Star
2016	Lost Opportunity	Retreat	Rising Star	Falling Star	Lost Opportunity
2017	Falling Star	Rising Star	Rising Star	Falling Star	Rising Star
2018	Retreat	Retreat	Rising Star	Retreat	Retreat
2019	Retreat	Retreat	Lost Opportunity	Falling Star	Retreat
2020	Lost Opportunity	Rising Star	Rising Star	Lost Opportunity	Falling Star

Source: International Trade Center (Processed), 2022.

Based on the results of the EPD analysis, it is known that the competitive position of the Indonesian cinnamon market for export destinations of America, the Netherlands, Vietnam, Brazil, and Thailand in the period 2011 - 2020 is in different positions. The competitive position that often appears in the five main importing countries is rising star, then retreat, falling star and the least appearing is lost opportunity. According to Nugraheni et al. (2021) stated that the rising star market position is the most ideal position to get because it has a market share and a share of fast-growing products. Lost opportunity is unwanted a market position because this market position shows a decrease in market share in dynamic products. Falling Star is a market position that is less profitable but still better than lost opportunities because its market share continues to increase. While retreat

itself is a market position that is not good and vice versa is desirable if its movement in the future leads to dynamic products, conditions can still be expected.

According to Trade Map data (2013), the United States, as Indonesia's main cinnamon trading partner, showed a market share of 46% of Indonesia's total cinnamon exports in 2013. This made Indonesia's cinnamon market position become a Rising Star in 2013 and 2014. However, over the past six years the volume of wood exports to the American market has shown a decrease of 3.65% per year. This condition makes it difficult for Indonesia to regain the Rising Star position even though it is seen from the value of its exports, which increase yearly. The U.S. cinnamon market is still dominated by Indonesia, with a share of almost over 50% every year, indicating that Indonesia has a competitive advantage. This is an opportunity for Indonesia to increase the quantity and quality of Cinnamon in order to get a Rising Star position in the following years.

In the last ten years the market share of the X-axis and the Y-axis shows the average value of falling stars, meaning that the market share of Indonesian cinnamon products for the Netherlands market is negative, indicating a lack of competitiveness competitively. The growth in the share of exports in the Netherlands market, which retreat positions have dominated over the past ten years, is due to the improvement of regional economic recessions of European countries affected by the United States economic crisis in 2008 as well as economic slowdowns in European countries. This is in accordance with the opinion of BAPPENAS (2015), which states that the improvement of the regional economic recession due to the global financial crisis in 2008 and European countries are not spared from being affected by the slow pace. In addition, the economic slowdown in European countries and the European Union in 2015 was due to the negative trade value of European regional countries. This has led to tougher competition between exporting countries due to the minus of Indonesia's export market share for the European market, one of which is the Netherlands market. The Netherlands market competitor for cinnamon commodities in Vietnam. In the last ten years the Netherlands has imported a lot from both countries. In 2020 Indonesia again obtained the Rising Star position, meaning that Indonesia's total exports and cinnamon exports are of positive value. This is a good opportunity for Indonesia to increase its cinnamon exports in the following years.

Indonesia's relationship with Vietnam in cinnamon export-import shows that the two countries are cooperating in improving quality and quantity so that each other's products can develop for the better. This is in accordance with the opinion of Annisa et al. (2021), who stated that the form of Bilateral economic cooperation between Indonesia and other importing countries is expected to help increase the share of Indonesian cinnamon exports to the world market. According to Anggasari and Mulyo (2011), countries in ASEAN have the same geographical location, so it is possible to have similar natural resources as well. This similarity makes countries in ASEAN conduct trade in search of added value in the differences in Geographical Indication products, for example, Indonesian Cinnamon is known as Java's cassia, and from Vietnam, it is known as Saigon cassia with a different processing process. This is why in the last ten years the competitive position of Indonesian Cinnamon in the Vietnamese market has mostly received a Rising Star position.

The competitive position of Indonesian Cinnamon in the Brazilian market is still in an average falling star position or has the potential to be developed. Trade Map data (2021) shows that in the last ten years Indonesia has supplied Cinnamon to Brazil, and in 2017, Vietnam began to export Cinnamon as a competitor to the Brazilian cinnamon market. Hayakawa et al. (2017) stated that the development of greater market potential is still constrained by factors such as the development of the economic levels of the two countries, exchange rate fluctuations, regional proximity, and language differences. The countries that are the main target market for Indonesian Cinnamon are Thailand, in addition to America and Europe. This is in accordance with the opinion of Permadi et al. (2021), which states that the largest export destination country for Kerinci cinnamon is the United States,

which Europe, Thailand, and India follow. Indonesia's export products include cinnamon bark, essential oils, and ground cinnamon.

Specialization Analysis of Indonesian Cinnamon Exports

Trade Specialization Index (ITS) is an analytical tool to determine the position or stages of development of a product. It describes Indonesia's position as an exporter or importer of Cinnamon in the world market. Based on the study's results, its values were obtained as in Table 5.

Table 5. ITS Value of Cinnamon Exporter Countries in the World.

Year	ITS Value				
	Indonesia	China	Vietnam	Sri Lanka	Netherlands
2011	0,93	0,98	0,95	0,99	0,12
2012	0,93	0,98	0,95	0,99	0,13
2013	0,92	0,99	0,92	0,99	0,17
2014	0,99	0,98	0,91	0,98	-0,16
2015	0,93	0,97	0,94	1,00	-0,06
2016	0,91	0,97	0,91	1,00	0,27
2017	0,96	0,98	0,78	0,99	0,02
2018	0,95	0,98	0,77	1,00	0,00
2019	0,84	0,98	0,83	1,00	0,07
2020	0,82	0,98	0,78	1,00	-0,04
Average	0,92	0,98	0,87	0,99	0,05
Interpretation	Maturation	Maturation	Maturation	Maturation	Export Expansion Stage

Source: International Trade Center (Processed), 2022.

The results of the ITS value analysis showed that during the period 2011 - 2020, the five countries received positive values, so it could be interpreted that Indonesia, China, Vietnam, Sri Lanka, and the Netherlands were cinnamon exporter countries. According to Darman (2013), if ITS shows figures from 0 to 1, the commodity are said to have strong competitiveness, and the country tends to be an exporter because its domestic supply is greater than domestic demand. Indonesia, over the last ten years has received an average ITS value of 0.92, meaning that Indonesia has high competitiveness as a cinnamon exporter country in the international market.

Indonesia, during the period 2011 - 2020, received a Maturation position with its value close to the one shown in 2014 and 2018. The increase in the value of ITS Indonesia in 2014 was supported by the increasing export volume and selling price of Indonesian Cinnamon in the world market. However, the value of ITS has decreased in the last three years until it touched the lowest point of ITS Indonesia, which is 0.82 in 2020, which means that Indonesia is back in the import stage position. The decline in its value is in line with the decline in Indonesia's export volume which reduces the market share of Cinnamon in the world market. According to Sa'diyah and Darwanto (2020) the reason why Indonesia is at the stage of re-importing cinnamon trade is that Indonesia is still importing Cinnamon from other producing countries aiming to improve the quality of Indonesian Cinnamon for export. Even though it had experienced fluctuations in the value of ITS, overall Indonesia was still included in the maturation stage position where Indonesia's exports of Cinnamon in the world market have increased and are competitive and tend not to import.

Trends and Projections of Indonesian Cinnamon

The results of the trend analysis and projections of the export value of Indonesian Cinnamon in the period 2011 – 2020 are shown in Illustration 4.

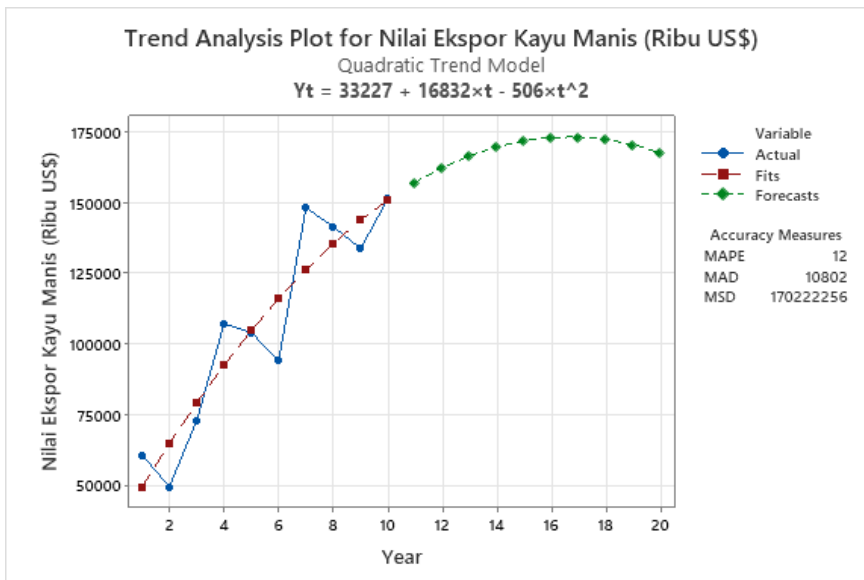


Illustration 4. Trends and Forecasting the Export Value of Indonesian Cinnamon

Based on the trend analysis results using the quadratic model in illustration 4, the export value of Indonesian Cinnamon in the period 2011 – 2020 showed an increase in trend or positive. This explains that the export value of Indonesian Cinnamon in the world market has increased yearly. This is in accordance with the opinion of Nurhayati (2020), who stated that the total export of Indonesian Cinnamon in the international trade market during the period 2007 - 2016 tended to increase, with the total export volume growing by an average of 4.04%, while the total export value grew by an average of 11.63% each year. According to Nurhayani and Rosmeli (2019), the increase in the export value of Indonesian Cinnamon is also supported by the Geographical Indication certification, which increases the selling value of Cinnamon in the world market. The increase in the selling value of Indonesian Cinnamon is expected to attract farmers to plant Cinnamon to increase the volume of cinnamon exports which has the potential to bring foreign exchange to the country and welfare for farmers.

Table 6. Projected Export Value of Indonesian Cinnamon 2021 – 2025.

Year	Forecast	Growth
	--- thousand US\$ ---	--- % ---
2021	151,153	-
2022	162,238	7.33
2023	166,530	2.65
2024	169,701	1.90
2025	171,859	1.27

Source: Primary Data (Processed), 2022

Based on the results of the analysis of Indonesian cinnamon projections using the quadratic method in Table 6. It can be known that the projected export value of Indonesian Cinnamon for the period 2021 to 2025 shows a positive trend growth. The projected curve of Indonesia's cinnamon export value in 2022 shows a growth of 7.33% and is predicted to touch the export value of US\$

162,238,000. In 2024 the export value of Indonesian Cinnamon is predicted to increase by US\$ 171,859,000 with an average growth of 3.29% annually. The results of the projection analysis explain the picture of the value of Indonesia's cinnamon exports in the future. This is in accordance with the opinion of Sa'diah and Tamami (2020) who state that projection is an application of a previously developed model. The model will be tested first on projection activities to determine whether the model used is appropriate.

The value of cinnamon exports, projected to increase for the next 5 years, is not in line with the projected volume of Indonesian cinnamon exports, which is projected to decline. The rising price of Cinnamon at the world level and the weakening rupiah exchange rate against the dollar are the main reasons why the value of cinnamon exports is projected to increase for the next five years although it is not in line with the projected increase in volume. This is an important concern for the government to maintain the stability of cinnamon exports so that the share of exports that have been running well is maintained for the following years. This projection can help the government and cinnamon producers and entrepreneurs as a reference in the strategic development of Indonesian cinnamon export commodities in the world market. Aldillah (2015) stated that by knowing the position of export commodities in the international market, the government can anticipate what policies should be taken to support national economic development and improve the welfare of farmers.

CONCLUSION AND SUGGESTION

The conclusion that can be taken from the research on the Competitiveness Analysis of Indonesian Cinnamon Exports in the World Market is that the results of the study show that the comparative competitiveness of Indonesian Cinnamon compared to other exporting countries has strong competitiveness, shown by an RCA value of 19.82. The competitive competitiveness position (EPD) that often appears during the period 2011 - 2020 in the five export destination countries is rising star, then retreat, falling star, and the least appearing is lost opportunity. The competitive position of Indonesian Cinnamon is at the stage of export maturation, with its analysis with a positive value of 0.92 showing that Indonesia has a tendency as a net exporter country. Cinnamon exports to the world market in 2011-2020 have an increasing trend every year and are projected to increase for 2021-2025.

Indonesia's cinnamon commodity has abundant domestic production and potential to be in the world export market. Indonesian Cinnamon needs to be improved in quality according to export standards so that it can strengthen the competitiveness of the Indonesian cinnamon trade in the world market. The comparative advantage of Indonesian Cinnamon to remain superior can be done by increasing domestic production by reducing land conversion, increasing plantation land area and productivity of Indonesian Cinnamon. Indonesia as a net exporter of Cinnamon should reduce imports and further maximize domestic production in order to be able to seize the world cinnamon market share beating its main competitors Sri Lanka.

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