

Indonesian Cinnamon Competitiveness and Competitor Countries in International Market

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ABSTRACT

Indonesia is the largest cinnamon producing country in the international market. The presence of competing countries causes competition for completed cinnamon demand in the international market. International trade requires that each country has specialization and the ability to be able to compete for existing markets. This study analyzes the competitiveness of Indonesia's cinnamon exports and the competitors (China, Vietnam, Sri Lanka, and Madagascar) by looking at comparative and competitive advantages along with factors that can influence them. The analysis period used in this study is from 2000 to 2017. Competitiveness analysis is measured by using the Trade Specialization Index (TSI) and Export Competitive Index (XCI) analysis methods, while the analysis of factors that can affect competitiveness performance is analyzed using the panel data regression method. The results of this study indicated that Indonesia and the competitors have comparative advantages and tend to be cinnamon exporting countries in the International Market, besides that Indonesia and competitors (China, Vietnam, and Madagascar) have competitive advantages and cinnamon exports of these countries increase from the previous year, so that the country was able to compete for cinnamon exports on the International Market. Factors that can affect the performance of the export competitiveness of cinnamon in Indonesia and competitors are productivity, market share, export prices, and domestic consumption.

Keywords: Cinnamon, Competitiveness, Export, International Market

INTRODUCTION

Cinnamon is one of Indonesia's leading spices which has great potential for export in the international market. The availability of natural resources such as land area, a climate that is in accordance with the conditions for growing cinnamon, and followed by abundant human resources are Indonesia's potential to increase exports (Ferry, 2013). Availability of land area for Indonesian cinnamon has increased every year. The growth rate of Indonesia's cinnamon land area during the 2000-2017 period increased by 3.05% (FAOSTAT, 2019). The land area of Indonesian cinnamon in 2000 was 66,000 ha, and continued to increase until 2017 reaching 105,530 ha. Based on data FAOSTAT (2019), Indonesia is a country that has the largest land area for cinnamon in the international market. The land area that continues to

increase has a positive impact on Indonesia to be able to continue to produce cinnamon in a sustainable manner (Pradipta & Firdaus, 2014). The growth rate of Indonesia's cinnamon production during the 2000-2017 period increased by 5.09% (FAOSTAT, 2019). The availability of abundant land areas makes Indonesia one of the countries with the highest cinnamon production in the world compared to other major producing countries, namely China, Vietnam, Sri Lanka, and Madagascar (FAOSTAT, 2019). The growth of Indonesian cinnamon production, which tends to increase every year, is in line with the increasing demand for Indonesian cinnamon in the international market. The rate of demand for Indonesian cinnamon in the international market during the 2000-2017 period increased by 5% (UNComtrade, 2019). This shows that Indonesian cinnamon still has a prospective market in the international market. The demand for Indonesian cinnamon which tends to increase in the international market is due to the use of processed cinnamon. The processed product of cinnamon is not only used for food flavoring ingredients, but cinnamon can be processed into essential oils to be used in the industrial sector, namely as an ingredient in cosmetics, perfume, and as medicine, which is a special attraction for importing countries (Hermawan, 2015). The existence of competing countries results in competition to meet the demand for cinnamon in the international market. Therefore, in international trade, every country must have specialization and also the ability to be able to compete for existing markets (Bustami & Hidayat, 2013).

Research on the export competitiveness of cinnamon in particular in the international market has not been widely found. Research conducted by Nurhayati (2018) described the analysis of the competitiveness of Indonesia's leading spices in ten main destination countries (Malaysia, UAE, Canada, Turkey, the Netherlands, Germany, Brazil, USA, Dominica, and Algeria). Nurhayati (2018) states that the RCA value of Indonesian cinnamon in the ten main destination countries was competitive, whereas based on the EPD analysis, Indonesian cinnamon commodity exports were in a rising star position in the markets of Malaysia, Canada, Turkey, the Netherlands, Brazil, the United States and the Dominican Republic. On the contrary, the markets of the United Arab Emirates and Algeria are in a falling star position, and the German market is in a lost opportunity position. Research by Anggrasari & Mulyo (2019) used the Intra Industry Trade (IIT) method to see whether the trade in Indonesian spice commodities in the international market is partially interindustry. Anggrasari & Mulyo (2019) stated that in 2002-2016 Indonesian cinnamon had an IIT index which was still relatively low in the international market so that the Indonesian cinnamon trade was inter-industry and only relied on comparative advantage.

In this study, a novelty measurement of the export competitiveness of Indonesian cinnamon and competing countries was carried out based on the Trade Specialization Index (TSI) analysis method, the Export Competitive Index (XCI), and the panel data regression method that had not been used in previous studies. The Trade Specialization Index (TSI) analysis is used to measure competitiveness based on comparative advantage, the Export Competitive Index (XCI) is used to measure competitiveness based on competitive advantage, and panel data regression is used to determine the factors that affect the performance of the

competitiveness of cinnamon exports. Analysis of the factors that can affect the performance of competitiveness needs to be done because the competitiveness of a traded commodity from time to time may change, such as at certain times it can have strong competitiveness, but at other times it can change and is not competitive. There are two kinds of factors that can affect the export competitiveness of a commodity, namely factors from the demand side and factors from the supply side. The demand factor consists of income, tariffs, and the tastes of the world community or destination countries, while the supply factor is influenced by the domestic industry in terms of providing capital, human resources, and technology (Tambunan, 2004).

Iskandar *et al.*, (2012) stated that the factors that can affect the performance of the competitiveness of Indonesian cinnamon in the American market include export volume and world cinnamon prices. This study explains that the export volume and world cinnamon prices have a positive effect on the performance of Indonesia's cinnamon export competitiveness in the American market. This shows that the higher the volume of Indonesian cinnamon exports and the higher the world price of cinnamon will have an impact on improving the competitiveness performance of Indonesian cinnamon in the American market. In this study, the variables used in the panel data regression model are productivity, market share, export prices and domestic consumption. The research objective was to determine the competitiveness of Indonesian cinnamon in the international market based on its comparative and competitive advantages, as well as to find out what factors can affect the export competitiveness performance of Indonesian cinnamon and competing countries in the international market. This research contributes to complementing the results of previous research on the export of Indonesian cinnamon in the international market, beside that the results of this study also provide benefits in policy formation, which can be taken into consideration in formulating factors that can increase the competitiveness of Indonesian cinnamon export commodities. This can be used as information in consideration of decision making regarding business strategies and provide an overview of the prospects for Indonesian cinnamon commodity.

RESEARCH METHOD

The basic method used in this research is descriptive method. The type of data used in this research is secondary data and quantitative data. The data used is in the form of time series data. Secondary data can be obtained from the Food and Agriculture Organization Statistics Division (FAOSTAT), and the United Nations Commodity of Trade (UN COMTRADE), as well as trademarks for the 18-year period (2000-2017). Harmonized System or HS trade code of cinnamon observed in this study is (0906). The HS trade code is the numbering on each item which is formed with the aim of facilitating trade transactions on the international market. The analytical method used is as follows:

Competitiveness Performance Analysis

TSI is one of the competitiveness methods used to see if a country tends to be an exporter or importer of a commodity being traded and the export stage of a traded commodity based on its comparative advantage. Mathematically, TSI can be formulated as follows:

$$TSI = \frac{X_i^k - M_i^k}{X_i^k + M_i^k}$$

Note:

- X_i^k : Export value of commodity k (cinnamon) country i
 M_i^k : Import value of commodity k (cinnamon) country i

The TSI has a value ranging from -1 to +1. If the value of $TSI > 0$, then the commodity concerned has strong competitiveness or in other words a country tends to be the exporter of the commodity, if the TSI value < 0 means that the commodity concerned has low competitiveness or in other words a country tends to be the importer of the commodity (Ikasari & Ngatindriatun, 2016).

TSI can be used to identify the growth rate of a commodity in the international market, which can be grouped into five stages, namely the introduction stage ($-1 < TSI \leq -0.5$), the import substitution stage ($-0.5 < TSI \leq 0$), the expansion stage export ($0 < TSI \leq 0.8$), the independence stage ($TSI = 1$), and the Re-import stage ($0.8 > TSI \leq 0$). The export competitive index is used to identify the success of export production in competition in the international market for a country based on a country's competitive advantage (Rochmat *et al.*, 2017). Mathematically, XCI can be formulated as follows:

$$XC_i^k = (X_i^k / X_w^k)_t / (X_i^k / X_w^k)_{t-1}$$

Note:

- X_i^k : Export value of commodity k (cinnamon) country i
 X_w^k : Export value of commodity k (cinnamon) in the world
 t : Current year
 t-1 : The year before

The criteria used are as follows:

$XC > 1$, indicates that the export of commodity (k) from country (i) has increased from the previous year, meaning that the country is able to compete for commodity exports (k) in the international market.

$XC \leq 1$, indicating that the export of commodity (k) from country (i) has not increased and even decreased from the previous year, meaning that the country is unable to compete for commodity exports (k) in the international market.

Factor Analysis

Analysis of the factors that influence the performance of cinnamon trade in international markets using panel data regression analysis. Panel data regression has data characteristics that are cross section and time series. Panel data is considered capable of overcoming the intercorrelation between the independent variables which in turn can lead to inaccurate data estimates so that the panel data method is more appropriate to use (Ajija *et al.*, 2011). The crosssection data used in this study were five major cinnamon producing countries in the international market (Indonesia, China, Vietnam, Sri Lanka, and Madagascar), while the time series data used were 2000-2017 data. The panel regression model used is as follows:

$$\ln NE_i^t = \alpha + \beta_1 \ln Pro_i^t + \beta_2 \ln PP_i^t + \beta_3 \ln HE_i^t + \beta_4 \ln KD_i^t + e$$

Note:

- $\ln NE_i^t$: The export value of cinnamon country i in year t
- α : Interception
- $\beta_1 - \beta_4$: Regression coefficient
- $\ln Pro_i^t$: Productivity of cinnamon country i in year t
- $\ln PP_i^t$: The market share of cinnamon country i in year t
- $\ln HE_i^t$: The export price of cinnamon country i in year t
- $\ln KD_i^t$: The domestic consumption of cinnamon country i in year t
- e : Error term

In this study, the best model was selected from three possible models in the panel data regression analysis. These models include the common effect, fixed effect, and random effect. Generally, three tests are used, namely the Chow, Hausman, and Breusch-Pagan tests in selecting the best model (Ajija *et al.*, 2011). This test is done by comparing the results of one model with another model after regression.

RESULT AND DISCUSSIONS

Export competitiveness is the ability of a commodity to enter a foreign market and the ability to survive in that market. TSI is used to determine the tendency of a country as an exporter or importer country and to determine the stages of development of the cinnamon commodity trade in the international market. Comparison of the development of Indonesian cinnamon commodity TSI and its competitors in the international market can be seen in Table 1.

Based on the results of the analysis over a period of 18 years, from 2000 to 2017, the average TSI value of Indonesian cinnamon tends to be positive, indicating that Indonesia is a net exporter country in the cinnamon trade in the international market (Aprilia *et al.*, 2013). The TSI value of Indonesian cinnamon, which tends to be positive and close to 1, shows that the supply of Indonesian cinnamon is greater than the demand for cinnamon in Indonesia, so that Indonesia tends to export. The development of Indonesian cinnamon commodity exports in the international market from 2000-2017 has fluctuated every year even though it tends to be an exporter country. In 2000-2003 Indonesia was at the stage of expanding exports, which means that Indonesia has reached an abundant production stage so that it began to develop cinnamon exports in the international market.

Based on table 1, the value of Indonesia's TSI in 2004 was 1, which means that in that year Indonesia had reached the stage of independence. The independence stage is the stage where the Indonesian cinnamon commodity has experienced technological standardization. However, even so in 2005-2017 the TSI value of Indonesian cinnamon actually decreased so that Indonesia was at the stage of importing again. At the stage of independence or maturity, the TSI value can decrease between 1 and 0, because these product industries begin to reduce their exports because they gradually fail to compete with industrial newcomers from other countries in the international market, but in the domestic market the production is still more than by request. The decline in the value of Indonesian cinnamon TSI in the international

market, which is decreasing at the re-import stage, is because the average rate of increase in imports of Indonesian cinnamon each year is greater than the rate of increase in exports. In addition, the reason why Indonesia is at the stage of re-importing in the cinnamon trade is because Indonesia is still importing cinnamon from other producing countries which aims to improve the quality of Indonesian cinnamon to be exported.

TABLE 1. DEVELOPMENT OF TSI IN INDONESIAN AND MAJOR CINNAMON PRODUCING COUNTRIES IN THE INTERNATIONAL MARKET, 2000-2017

Development of TSI Cinnamon					
Year	Indonesia	China	Vietnam	Sri Lanka	Madagascar
2000	0.95	0.99	1.00	1.00	1.00
2001	0.88	0.99	1.00	1.00	1.00
2002	0.92	1.00	1.00	1.00	1.00
2003	0.99	1.00	0.99	0.99	0.97
2004	1.00	1.00	0.99	1.00	1.00
2005	0.93	0.99	0.96	1.00	1.00
2006	0.96	0.99	0.99	0.99	1.00
2007	0.92	0.98	0.96	0.99	0.99
2008	0.95	0.97	0.93	0.99	1.00
2009	0.84	0.99	0.92	0.98	1.00
2010	0.93	0.99	0.89	1.00	1.00
2011	0.93	0.98	0.93	0.99	1.00
2012	0.93	0.98	0.95	0.99	1.00
2013	0.92	0.99	0.92	1.00	1.00
2014	0.99	0.98	0.91	0.98	1.00
2015	0.93	0.97	0.94	1.00	1.00
2016	0.91	0.97	0.91	1.00	1.00
2017	0.96	0.98	0.78	0.99	1.00
Average	0.94	0.98	0.94	0.99	1.00

Source: Secondary Data Analysis (UNComtrade, 2019)

Indonesia's position, which tends to be a cinnamon exporter in the international market, also does not make Indonesia a leading country in exporting cinnamon in the international market. Based on the results of the TSI calculation analysis, the average TSI calculation for Indonesian cinnamon and its competing countries shows that the five main cinnamon producing countries in the international market have a tendency to become cinnamon exporters and are at the stage of re-importing (Sri Lanka, China, Indonesia and Vietnam.), while Madagascar is already at a stage of independence. Madagascar can be in an independent stage because it is able to increase cinnamon exports and reduce cinnamon imports from 2008-2017 so that it has a TSI value equal to 1. This is indicated by the average growth rate of Madagascar cinnamon imports is smaller than Indonesia and its main competitor countries other.

Export Competitiveness Index (XCI) analysis is used to see whether the Indonesian cinnamon commodity and competing countries have the ability to compete based on their

competitive advantage. The competitive advantage of a country can only be built through continuous innovation. Continuous innovation can be done by utilizing technology, entrepreneurship, increasing productivity, and providing skilled labor (Salvatore, 2014). Table 2 shows the XCI development of Indonesian cinnamon and its competitors in the international market.

TABLE 2. DEVELOPMENT OF XCI IN INDONESIA AND MAJOR CINNAMON PRODUCING COUNTRIES IN THE INTERNATIONAL MARKET, 2000-2017

Development of XCI Cinnamon					
Year	Indonesia	China	Vietnam	Sri Lanka	Madagascar
2000	0.9	0.77	1.34	1.03	0.86
2001	0.82	1.37	1.01	0.89	1.10
2002	1.07	1.06	0.95	0.96	0.95
2003	1.05	0.8	0.92	1.11	0.90
2004	1.16	1.15	1.26	0.86	1.05
2005	0.83	0.85	0.97	1.17	0.72
2006	1.00	1.01	1.38	0.91	1.36
2007	1.21	0.94	0.98	0.99	2.78
2008	1.01	0.85	1.06	1.10	1.04
2009	0.81	1.28	1.27	0.85	1.05
2010	1.34	0.97	1.09	0.95	1.11
2011	0.92	1.06	0.92	1.07	0.63
2012	0.86	0.9	0.95	1.13	0.87
2013	1.25	0.97	1.27	0.86	1.26
2014	1.20	0.97	1.28	0.81	1.27
2015	0.94	1.28	0.85	0.97	1.2
2016	0.87	0.85	1.05	1.16	0.94
2017	1.47	1.12	1.26	1.19	1.47
Average	1.04	1.01	1.10	1.0	1.14

Source: Secondary Data Analysis (UNComtrade, 2019)

The XCI development of Indonesia's cinnamon export trade for 18 years (2000-2017) has fluctuated, but tends to increase every year. The average XCI value of Indonesian cinnamon from 2000-2017 has a value greater than 1, which means that Indonesia's cinnamon commodity exports have increased from the previous year and can compete in the international market (Hidayati & Suhartini, 2018). The trend of increasing competitiveness is in line with developments in the export value and export volume of Indonesian cinnamon, which also continues to increase every year in the international market. Although Indonesia is able to compete in the international market, Indonesia's XCI value is not in the highest position when compared to competing countries. This happens because Indonesia is still unable to maintain a consistent increase in exporting cinnamon in the international market. Based on the results of the XCI analysis, the XCI mean value of cinnamon was obtained from the largest order, namely Madagascar (1.14), Vietnam (1.10), Indonesia (1.04), China (1.01),

and Sri Lanka (1.00). Madagascar has an XCI average value of more than 1 because the average export volume growth rate and the export value growth rate of Madagascar cinnamon are greater than Indonesia, China, Vietnam, and Sri Lanka.

China has an XCI value of (1.01), which means that China's cinnamon exports have increased from the previous year and are able to compete in the international market. However, the value of China's XCI when compared to Indonesia, Vietnam and Madagascar still has very little chance of being competitive. This is because the growth rate of cinnamon consumption in China also continues to increase every year. In 2008, 2010, and 2012 there was a drastic decline in export volume due to an increase in domestic cinnamon consumption in China, namely 35%, 75%, and 45%. This also happened to Sri Lanka, which has an XCI value of 1, which means that the export of cinnamon in Sri Lanka did not increase and even decreased from the previous year, so that Sri Lanka was unable to compete in the export of cinnamon in the international market. This occurs due to a decrease in export volume as a result of an increase in domestic cinnamon consumption in Sri Lanka by 61% in 2010 and 52% in 2014. An increase in domestic cinnamon consumption in a country can reduce the country's competitiveness performance if the country does not increase production. Therefore, China and Sri Lanka must increase production by increasing their productivity in order to meet domestic needs and needs in the international market which tend to increase.

With changes in the performance of the competitiveness of Indonesian cinnamon and competing countries from year to year, it is necessary to know what factors affect the performance of the export competitiveness of Indonesian cinnamon and competing countries in the international market. The dependent variable used is the export value of cinnamon from Indonesia and competitors, while the independent variables used are productivity, market share, export price, and domestic consumption of cinnamon from each country in Indonesia, and competitors. In panel data regression, the best model is chosen to be used, namely the common effect, fix effect, or random effect models.

TABLE 3. CHOW TEST RESULTS

Test Summary	Prob F	Result	Decision
Chow	0.0000	H_0 rejected	<i>Fixed Effect</i>

Source: Secondary Data Analysis (2019).

Based on the results of the Chow test in table 3, the probability value F is 0.0000, so the probability value $< \alpha$ (0.05) and H_0 is rejected so that the selected model is a fixed effect model rather than a common effect model. After it is known that the best model chosen is the fixed effect model, the next test is carried out, namely the Hausman test.

TABLE 4. HAUSMAN TEST RESULTS

Test Summary	Prob	Result	Decision
Hausman	0.0000	H_0 rejected	<i>Fixed Effect</i>

Source: Secondary Data Analysis (2019).

The Hausman test results obtained a probability value of 0.0000, then the probability value $< \alpha$ (0.05) and H_0 is rejected, so the model chosen is the fixed effect model rather than the random effect model. The fixed effect model was chosen by using these two approaches, so testing the model with the Lagrange multiplier can be ignored. Based on the best model selection test, it can be concluded that a more appropriate model is used to explain the effect

of productivity, market share, export price, and domestic consumption on the performance of Indonesia's cinnamon export competitiveness and competitors is the fixed effect model. Table 5 shows the results of panel data regression with a fixed effect model.

TABLE 5. ANALYSIS RESULTS OF FACTORS AFFECTING THE COMPETITIVENESS PERFORMANCE OF CINNAMON IN INDONESIA AND MAJOR PRODUCING COUNTRIES IN THE INTERNATIONAL MARKET 2000-2017.

Variable	Coefficient	Std. Error	Prob.
C	6.705086***	0.471143	0.0000
Ln Productivity	0.556858**	0.214502	0.0112
Ln Market share	1.254767***	0.092185	0.0000
Ln Export price	1.063756***	0.074539	0.0000
Ln Domestic consumption	-0.051744***	0.016271	0.0021
R ²	0.982789		
Adjusted R ²	0.981089		
Prob (F-statistic)	0.000000		

Source: Secondary Data Analysis (2019)

Notes:

*) significant at alpha 90% ($\alpha = 0,1$)

**) significant at alpha 95% ($\alpha = 0,05$)

***) significant at alpha 99% ($\alpha = 0,01$)

^{ns}) Non significant

The value of Adjusted R² shows the accuracy or goodness of fit of the model used. The greater the R² value (close to 100 percent), the better the regression model. The estimation results of panel data regression with fixed effects resulted in an Adjusted R² value of 0.9810 which means, 98.10% of the variation in the dependent variable (the export value of the main cinnamon exporting country on the international market) can be explained by the independent variables used in the model (productivity, share market, export prices, and domestic consumption), while the remaining 1.9% is explained by other variables outside the model that are not included in this study. Based on the results of the panel data regression analysis of the fixed effect model, the probability value of F is 0.0000, so based on the F test, productivity, market share, export prices, and domestic consumption together have an effect on the performance of the competitiveness of cinnamon in the main exporter of cinnamon in the international market.

Based on the results of panel data regression analysis in Table 5, it can be seen that the constant value has an effect on the level of 99% with a regression coefficient of 6.7051, which means that the minimum export value of the main cinnamon producing countries in the international market when the independent variables in the regression model are considered fixed or zero is 6.7051% or equal to 816,55 US \$.

Productivity

Cinnamon productivity has a positive and significant impact on the export value of cinnamon in the main cinnamon producing country in the international market. It means that every one percent increase in the productivity of cinnamon in the main cinnamon producing country in the international market will increase 0.55% of the export value of

cinnamon in that country. Productivity is the ability of a land to produce certain crops under certain land cultivation conditions (Nurmala *et al.*, 2011). Productivity describes the achievement of targets in the form of crop production related to quality and quantity.

When productivity increases, product availability will also increase. The increase in productivity explains the increasing number of cinnamon production in certain unit per unit of land availability for the main cinnamon producing countries in the international market. The greater the production that can be produced, the more it can meet the availability of cinnamon to meet domestic and international market needs. The abundance of cinnamon production in Indonesia, China, Vietnam, Sri Lanka and Madagascar can certainly have an impact on the progress of cinnamon exports in these countries. The resulting cinnamon production can support the country to continue to export to meet the demand for cinnamon in the international market, so that productivity will affect the performance of cinnamon exports in the international market. Productivity can be used as a yardstick to measure the effectiveness of cultivation in utilizing the available land. Ashari *et al* (2015) states that productivity can have a positive effect on the export performance of Indonesian mangosteen fruit.

Market Share

The market share of cinnamon has a positive and significant impact on the export value of cinnamon in the main cinnamon producing countries in the international market, which means that every one percent increase in the market share of cinnamon in the main cinnamon producing countries in the international market will increase 1.25% of the export value of cinnamon in the country. Market share is the total demand for an item in an area (Widyaningtyas & Widodo, 2016). Market share shows how big the market can be controlled by the exporting countries in the international market. The greater the market share of a country means the greater the reach of the market that can be controlled by an exporting country.

The greater share of the cinnamon market in Indonesia, China, Vietnam, Sri Lanka and Madagascar shows that these countries can meet the demand for cinnamon in the international market, thereby increasing the value of their exports. Purnamasari *et al* (2014) states that the higher the level of a country's market share, the more competitive it is because of the larger share of the market that country can control. In addition, it also explains that the wider market share controlled by an exporting country will enable the industry to maintain and increase the competitiveness in facing its competitors (Wijayanti *et al.*, 2011).

Export Price

The export price of cinnamon has a positive and significant effect on the export value of the main cinnamon producing countries in the international market. Every one percent increase in export price will increase 1.06% of the export value of cinnamon in that country. This is not in accordance with the research hypothesis which states that export prices will have a negative effect on the competitiveness performance of the main cinnamon producing countries in the international market. Gul *et al* (2013) states that if there is an increase in the

price of an item, the demand for that item will decrease and consumers will switch to other goods with a much cheaper price. A decrease in demand in the destination country will certainly affect the performance of competitiveness, because there will be a decrease in export volume and export value. However, in this study, the results showed that the higher the price of cinnamon in Indonesia, China, Vietnam, Sri Lanka and Madagascar, the higher the competitiveness of those countries. This can happen because the export price or selling price can describe the quality of a commodity to be exported. Muharami & Novianti (2018) state that the export price of a good describes the quality of the product to be sold, an increase in the export price will encourage the export value of a commodity so that it can increase in the international market followed by an increase in quality. In addition, an increase in the export price of cinnamon from major producing countries can have a positive effect on the performance of competitiveness because the largest importer of cinnamon in the world is the US, which does not have a comparative advantage in producing cinnamon and requires quality products from exporting countries.

Domestic Consumption

The domestic consumption of cinnamon has a negative effect on the export value of the main cinnamon producing countries in the international market, which means that every 1 % decrease in the domestic consumption of cinnamon in the main cinnamon producing countries will increase 0.05 % the export value of cinnamon in that country. The decline in domestic consumption shows that domestic demand for cinnamon is smaller than foreign demand, so that the country tends to be an exporter country. Ashari *et al* (2015) states that the lower domestic consumption while domestic production continues to increase, a country will increase its competitiveness because the country will tend to export to the international market. If domestic consumption in the main cinnamon producing countries increases, these countries need to increase their production maximally in order to meet the demands of the domestic market and the international market. Efforts to increase production can be done by increasing productivity, expanding the area of land and optimizing land, and increasing the management skills of cinnamon farmers (Sujaya *et al.*, 2018).

Based on the regression analysis of panel data, the main factor affecting the performance of Indonesia's cinnamon export competitiveness and competing countries is market share. Market share has the highest coefficient value, which means that this variable has a greater influence on the export competitiveness performance of the main cinnamon producing countries. Indonesia and its competitors must continue to increase their share of the export market for cinnamon in the international market if they are to continue to compete in the international market. The greater the market share or market reach, the more competitive the country will be, and that country can get the cinnamon market share in the international market.

CONCLUSIONS

The performance of Indonesia's cinnamon export trade shows that Indonesia and its main competitor countries have comparative competitiveness and tend to be the exporters of cinnamon in the international market. Based on the competitive advantage of Indonesia and the main competing countries, except Sri Lanka, they have a competitive edge. The factors that influence the performance of the export competitiveness of Indonesian cinnamon and competing countries are productivity, market share, export prices, and domestic consumption. Productivity, market share, and export prices have a positive effect, while domestic consumption has a negative effect on the export competitiveness performance of Indonesian cinnamon and its main competitors.

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