

The Competitiveness Analysis of Indonesian Cocoa Beans Export in the World Market

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Abstract: Cocoa is an important agricultural commodity in the world economy. Indonesia is the third largest producer of cocoa beans after Ivory Coast and Ghana. Previous research demonstrated that cocoa had many opportunities for market expansion of Indonesian cocoa exports in the world market. Competitiveness analysis as a basic for improvement of commodity market expansion. The objective of this study was to analyze the competitiveness and factors affecting of Indonesian cocoa beans export based on its market share. Data used in this study were secondary data from 1996-2015 for comparison of Indonesian cocoa as the one of major exporter, Comparative Export Performance (CEP), Market share Index (MSI), Export Product Dynamics (EPD), and VECM (Vector Error Correction Model) were calculated. The result showed that as the main exporting country, Indonesian cocoa had comparative advantage in recent years. While MSI analysis showed that Indonesia had the lowest one among them. Indonesia should have to face a strong competition among Ivory Coast and Ghana, caused by they face a same market in Netherlands, USA, Malaysia, and Germany. Based on EPD analysis, Indonesian cocoa had good dynamic performance in Malaysia, China, and Singapore market. These results suggested that to increase competitiveness, some policies are required to maintain availability through increasing production and price so that it can also increase demand and export

Keywords: Cocoa, Competitiveness, Export Market, Factors affecting

INTRODUCTION

In the current era of globalization, where an increasingly integrated world economy, as has been implied from the implementation of free trade. Freedom of trade creates opportunities to open new markets for the producer countries which have important commodity in world trade [1]. This potential can be utilized mainly for Indonesia in expanding their market especially for export commodity. Cocoa beans is one of the main export commodity in Indonesia. The growth of the cocoa economy today can be increased from year to year [2].

The bulk of output from cocoa beans is concentrated in West Africa (approximately 70%), Asia (17%) also Central and South America (13%). Indonesia is the third largest exporter in the world market with 15 percent of the total exports of cocoa beans, after Ivory Coast with 39 percent and Ghana with 22 percent [3]. In 2014, ICCO (International Cocoa Organization) stated that world cocoa beans production reached 3.6 million ton meanwhile consumption reached 3.993 million therefore deficit will occur. The deficit is predicted to occur on coming more years.

In 2013-2015, the total exports of cocoa beans showed an increasing value, despite in 2010-2012 had decreased [4]. An increasing trend of Indonesian cocoa exports gave opportunities to increase its market. Changes in the international environment, especially in the trading system with the liberalization of the economy led to competition including cocoa market becomes more severe. In conditions of free trade, countries that have a comparative advantage and a higher competitive advantage will have a greater ability to exist, even penetration and international market share.

Indonesia necessary readiness to face competition in the world market. One of strategy to face competition through improving the competitive advantage of Indonesia cocoa beans. If a country is able to improve its competitiveness, the opportunity to increase both international and domestic market will be more. Conversely, when the country can improve its competitiveness then the country will be urged by competitor countries [5].

International competitiveness, within the context of trade in goods and services, refers to a nation securing and maintaining a trade advantage of the world [6]. Various countries involved in international trade continues to improve the competitiveness of their products more efficient products and greater market share in the international market [7]. Commodities have high competitiveness means having the opportunity to expand market share in the international market [7,5]. Based on the former researches conducted by Hanani *et al.* [8] and Zhao *et al.* [9]; indicated that competitive conditions and economic performance of agricultural commodities have an impact on improving the competitiveness of each country.

Several research has been conducted on cocoa beans and cocoa products competitiveness such as Widodo [10], Is [11], Rahmanu [12] and Lubis and Nuryanti [13]. Cocoa had many opportunities for market expansion of Indonesian cocoa exports in the world market [14]. Demand for cocoa beans in the world market will continue to increase until 2020 [15]. Therefore the competitiveness analysis of Indonesian cocoa beans export will be an important information especially in determining marketing strategy. To promote sustainability of the national cocoa tough in the future, it is necessary to research and development activities that can generate strategies to achieve cocoa agribusiness competitiveness in the domestic market and in the world market also to know factors affecting for increase export market[6]. Factors affecting of Indonesian cocoa beans export market very important to be the most dominant factor as a benchmark in increasing market share.

This study aims to know the competitiveness of Indonesian cocoa in comparison with other producing countries and estimate factors affecting of export market. This research is important because information regarding the competitiveness of Indonesia cocoa can indicate the position of Indonesian cocoa in the world market compared with competitor countries. In addition, competitiveness of Indonesia's competitor will also be considered. With these information, marketing strategy will be constructed in order to complete with the other cocoa beans exporting countries. In this research also wanted to know variety of potential market that has a chance to increase of Indonesian cocoa exports. It is expected competitive position related information is a reference point for Indonesia in choosing a target market.

MATERIAL AND METHODS

To measure the competitiveness of cocoa beans export, standard Comparative Export Performance (CEP), Market Share Index (MSI), and Export Product Dynamics (EPD) are estimated. Data for these has been

extracted from official website of Food and Agriculture (FAO) and UN Comtrade from 1996 to 2015. Products used in the estimation of this model is cocoa and cocoa preparations (Harmonized System code 18). 4 digit HS Code of Cocoa beans, whole or broken, raw or roasted is 1801.

1. Comparative Export Performance (CEP)

The comparative advantage explained how trade could benefit nations through more efficient use of the world's resource base (land, labor, capital inputs) when that trade is totally unrestricted. So-called comparative advantage mean that one country had less comparative cost for a certain quality of the same product than another country, and then we called the country had comparative advantage in the product.

This approach is a modification of the RCA. This approach is to measure a country's export specialization towards a commodity in the world market is totally without seeing comparisons from other countries [16]. It is based on export shares and therefore allows for a comparison of findings between two indices. The formula we use to measure the CEP index is given by [6]:

$$CEP = \ln \frac{X_i / X_{it}}{W_{wa} / X_{wt}}$$

Information:

- X_i = export value of cocoa beans country i
- X_{it} = total export value in world market
- W_{wa} = total world export value t
- X_{wt} = total export value all commodity in world market
- i = Country
- W = World Market

The results of these indicators show that if the value of $CEP > 1$, its means that country a has a comparative advantage against the other countries. For the CEP calculations, besides Indonesia four other countries will also be calculated : Ivory Coast, Ghana, Nigeria and Cameroon which represents the largest cocoa beans exporting countries in 2012.

2. Market Share Index (MSI)

Market Share defined as the ownership percentage of the market. The market share is an indicator to see the commodity competitiveness level of a country. An increase or decrease in market share will show the competitive level of a commodity in the market based on a percentage of the commodity market share by a country. The market share can be formulated mathematically as the following equation:

$$MSI = \left(\frac{QX_{it}}{QX_{Wit}} \right)$$

Information:

MSI = Market share of cocoa beans country i in world market (percentage)

QXit = Value export commodity country i in world market at year t (ton)

QXWit = Value import of cocoa beans in destination country at year t(ton)

i = Country

t = the period of analysis

MSI is the relative percentage of imports from several countries in more specific sectors with values ranging from 0-100. If a country does not have the quantity of exports in these products then rated 0, but its value will reach 100 if only the state is the sole exporter of a product. The higher MSI reflects the growing market dominated parts of the country. MSI calculations in this study focused on largest cocoa importing countries in the world market are Netherlands, United States, Malaysia, Germany [2].

3. Export Product Dynamics (EPD) Analysis

Export Product Dynamics (EPD) Approach is used to identify competitive advantages or competitiveness of a commodity and also to find a commodity with a dynamic performance or not. This indicator measured the market positioning of the products based on certain destination country. An EPD matrix consists of market attractiveness and business strength information. Market appeal is calculated based on the growth of demand for a product in a certain destination, where the information business strength is measured by growth from market share of a country. The combination of market attractiveness and business strength of product character position in question into four categories. The fourth category is the "Rising Star", "Falling Star", "Lost Opportunity" and "Retreat". EPD method consists of a matrix that puts the products in question into four categories (Table 1).

Table 1. Competitiveness Matrix from EPD Method

Share of Country's Export in World Trade (x)	Share of Product in World Trade (y)	
	Rising (Dynamic)	Falling (Stagnant)
Rising (Competitive)	Rising Star	Falling Star
Falling (Non-Competitive)	Lost Opportunity	Retreat

Source: Adapted from Estherhuizen (2006).

The position of lost opportunity market share is the least favorable market condition or competitiveness of a country because in this position there is a decrease of market share in the domestic product, while the export market share in the destination country has increased [17].

If Indonesia's cocoa beans exports are in the rising star, the export of Indonesia cocoa beans is in the highest market position because in this position Indonesia's cocoa beans exports have increased and the market share (demand) of cocoa beans exports in the International market is increasing. Other unexpected market positions by a country are the falling star because in this position there is an increase in market share even if it does not happen in continuous product or goods (dynamic) in the global market. Retreat is a condition which the product or goods of a country is no longer wanted by the market share.

Information :

- The x-axis represents an increase of export market share in a particular world trade country.
- The y axis represents an increase in market share of certain world trade .

The formula used in the calculation of this EPD, including:

The x-axis:

The growing power of the business or so-called the export markets i:

$$\frac{\sum_{t=1}^t \left(\frac{X_{ij}}{W_{ij}}\right)_t \times 100\% - \sum_{t=1}^t \left(\frac{X_{ij}}{W_{ij}}\right)_{t-1} \times 100\%}{T}$$

The y-axis :

Growth market appeal, or so-called market share of the product:

$$\frac{\sum_{t=1}^t \left(\frac{X_t}{W_t}\right) \times 100\% - \sum_{t=1}^t \left(\frac{X_t}{W_t}\right)_{t-1} \times 100\%}{T}$$

Where:

Xi: The export value of product i from Indonesia to country j

Xt: The total value of Indonesia exports to importing country

Wi: The import value of product i (importing countries) from world

Wt: The total import value all product (importing countries) from world

The countries examined in the analysis of EPD is Indonesia cocoa importing countries with the largest export value. The selection of the research object is based on research objectives to determine the position of competitiveness in countries that import cocoa beans from Indonesia, so it can be used as a reference for developing export in certain destination countries.

Countries that are used as objects of study are Netherlands, USA, Germany, Malaysia, China, Singapore, and Japan.

4. VECM Analysis

VAR was developed by an econometric expert, Christopher A. Sims (1980), as an alternative approach to modeling the multiple equation model with the consideration of minimizing the theory approach aimed at capturing the economic phenomenon well [22]. Sims argues that if there is a simultaneous relationship between the observed variables, then those variables should be treated equally so that no endogenous and exogenous variables are present [23].

Theoretically, market share variables, export volume, domestic price, exchange rate, world price, and world cocoa availability have relationship so that the six variables are endogenous variable, which can then be analyzed by using VECM (restricted VAR) method. This research only focus to know the factors affecting of export market share with the equation as follows:

$$X_{1,t} = a_{1,0} + \sum_{i=1}^k a_{1,i} X_{1,t-i} + \sum_{i=1}^k b_{1,i} X_{2,t-i} + \sum_{i=1}^k c_{1,i} X_{3,t-i} + \sum_{i=1}^k d_{1,i} X_{4,t-i} + \mu_{1,t}$$

Where,

- X1 = Market share export (%)
- X2 = Export Volume (tonnes/year)
- X3 = Domestic Price (Rp/Kg)
- X4 = Real Exchange rate (Rp/US\$)
- X5 = World cocoa Stock (tonnes/year)
- X6 = World Price (US\$/ Kg)

To know the estimation for future use variance decomposition. Analysis of Variance Decomposition (VD) or known as forecast error variance decomposition is an analysis tool on the VAR/VECM model that will provide information about the proportion of the shock effect movement on one variable against other variables at this time and the future period. It is useful for predicting the percentage contribution of variants of each variable due to changes in a particular variable.

RESULTS AND DISCUSSION

1. Comparative Export Performance (CEP)

Analysis

The first analysis is used the comparative export performance (CEP), the index indicated that Indonesian cocoa beans had comparative advantage shown by the CEP value more than 1 (Figure 1). The highest values was achieved in 2010 with the CEP index of 3.25 meanwhile decreased from 2011-2012 to 2.55 and 2.59 respectively caused by the decrease in cocoa beans export significantly. The decline in CEP value is also due to the increase in export value of Indonesian cocoa beans relatively slower than the increase in export value of world cocoa beans. The results and phenomenon are supported by other papers, which noticed that with implementation of export tax, cocoa export product composition shift from cocoa beans to processed cocoa products which in 2009 composition of cocoa beans by 75%, has been reduced in 2011 to 51% [18]. On the other hand, Indonesia’s cocoa export growth is lower than the growth of cocoa world demand which is mainly caused by the decrease of competitiveness. During 1996-2015 the average CEP index is 2,84.

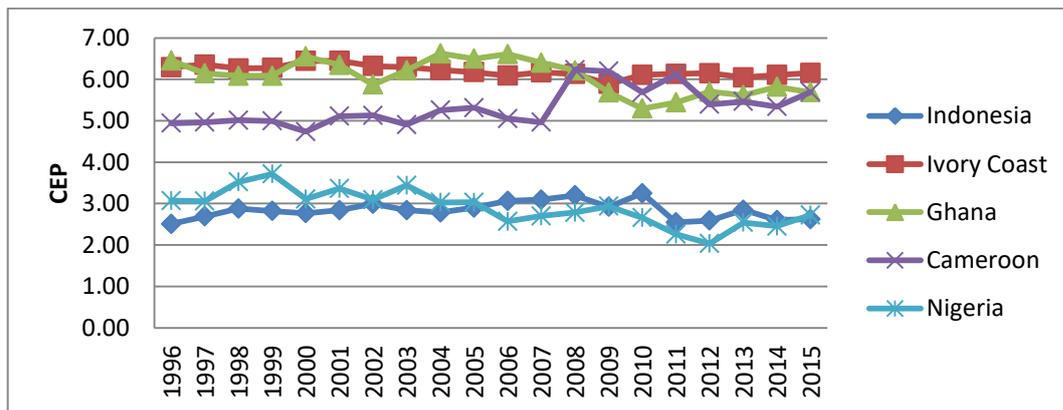


Fig-1: CEP index in the Main Cocoa Beans Exporter Countries, 1996-2015

Source : Based on data from FAOSTAT, ITC (Calculated).

Compared with the other main exporter countries, Indonesia’s CEP is smaller. During the period 1996-2015, Ivory Coast, Ghana, Cameroon, and Nigeria average CEP reached 6.20, 6.07, 5.32, and 2.91 respectively. This is in accordance with research from

Rifin [19] which stated that Indonesia had comparative advantage on producing cocoa beans but the other countries, Ivory Coast, Ghana, and Nigeria, had also comparative advantage in producing cocoa beans and their RCA index is several times higher than Indonesia.

When compared to the other two main exporters, the comparative advantage of Indonesia cocoa beans exports is far below from Ivory Coast and Ghana. Both countries are the main producers of cocoa beans contributing to the production of cocoa beans more than 50% in the world. In addition, cocoa beans of these countries have been through fermentation so that the price is higher than other countries [8].

The high CEP index for Ivory Coast, Ghana, Cameroon, and Nigeria also can be caused by the fact that cocoa beans as the main and largest export commodity compared to other commodities of these countries. Indonesia itself had many other export commodities. Cocoa export commodities over the past ten years accounted for an average of about 1.04 percent of total national exports [8].

2. Market Share Index Analysis

The second analysis is used market share index approach. In this approach the competitive level of a

commodity is reflected in the market share, therefore if a country with a high export market share can be considered to have a high degree of competitiveness in certain commodities. This analysis to know about the position of Indonesian cocoa beans in the some major importing countries such as Netherlands (Figure 2), Germany (Figure 3), USA (Figure 4), and Malaysia (Figure 5). The results will be used as a benchmark to determine the potential market for Indonesia to improve its export performance through increasing market share.

Netherlands is one of the countries in Europe, where Europe is one of the largest cocoa consuming countries. Indonesia had the lowest position compared to its competitor countries (Figure 2). During 1996-2015, Indonesia's average contributed only 0.61% on the Netherlands market, while Ivory Coast's average contributed of 46.70%. Furthermore, Ghana had an average contribution of 22.04%, Cameroon of 20.20%, while Nigeria at 10.45%.

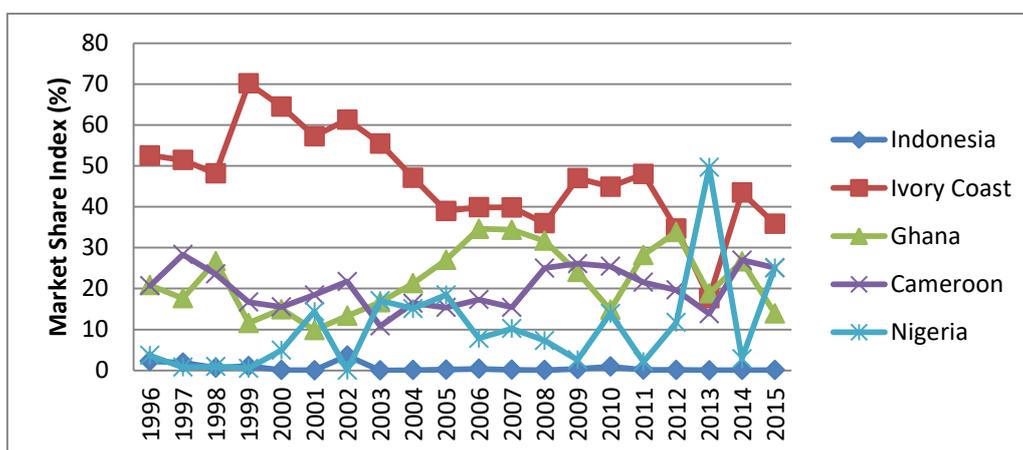


Fig- 2: Market Share Index Based on Netherlands Market
 Source : Based on data from FAOSTAT, ITC (Calculated).

Although it showed a fluctuating trend in all cocoa exporting countries, but Indonesia export value is not able to defeat the export value in other competitor countries. This has an impact on Indonesia's market share position is the lowest compared to its competitors. When viewed also on the development of export position based on market share value in other European countries is Germany showed that Indonesia still had a very low market share contribution in the Germany market but better than in the Netherlands market (Figure 3). During 1996-2015, Ivory Coast contributed 57.95%, while Indonesia contributed only 4.21% of the total market share percentage.

This phenomenon is also explained by other report which Ministry of Agriculture [20] noticed that although as the 3rd largest cocoa producer in the world, but Indonesia's export trade to EU market only occupies the 6th position with a share of only 2.46% or far below . Its production capability is about 1/6 of the world's total production. Indonesia's main competitor countries in the EU market are Ivory Coast, Ghana, Nigeria, Cameroon which have preference for import duties because they are incorporated in Africa, Carribean, Pacific (ACP) Countries.

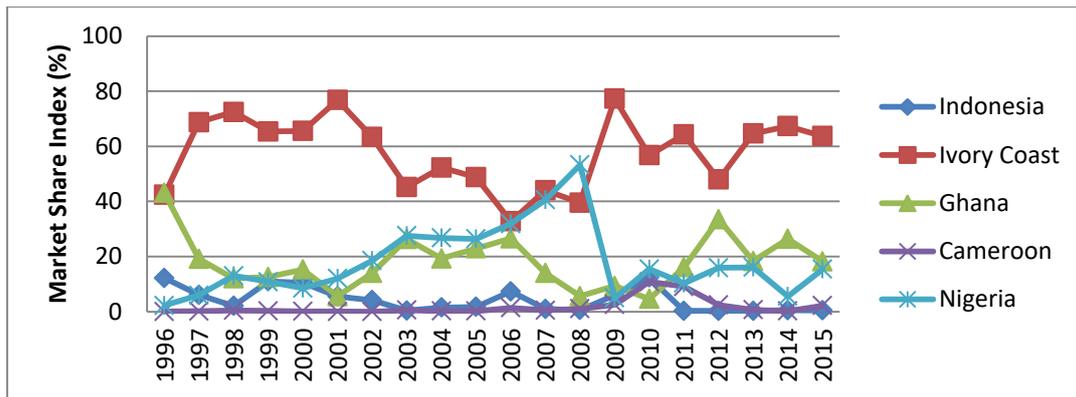


Fig-3. Market Share Index Based on Germany Market
 Source : Based on data from FAOSTAT, ITC (Calculated).

In the case of the problem, Indonesian cocoa beans discriminated by cocoa importing countries such as the European Union which charges a high tariff on cocoa from Indonesia, so that the import duty becomes a burden for Indonesia in increasing its exports. The different case of the EU treatment of cocoa from Africa such as Ivory Coast and Ghana are subject to import duty of 0% [21].

In the USA market, Indonesia had a better condition than Ghana despite a shift in competition

position by 2015 (Figure 4). During 2006-2015, the average percentage of market share contribution in the United States is still dominated by the Ivory Coast with a value of 57.15%, while Indonesia is 18.85%, Ghana is 10.4% and Cameroon is 10.66%. Moreover, in 2009, there was a phenomenon whereby Indonesia, Ghana, Cameroon and Nigeria had a very low market share value with a contribution percentage below 10%, while Ivory Coast had a market contribution of almost 90% in the same period.

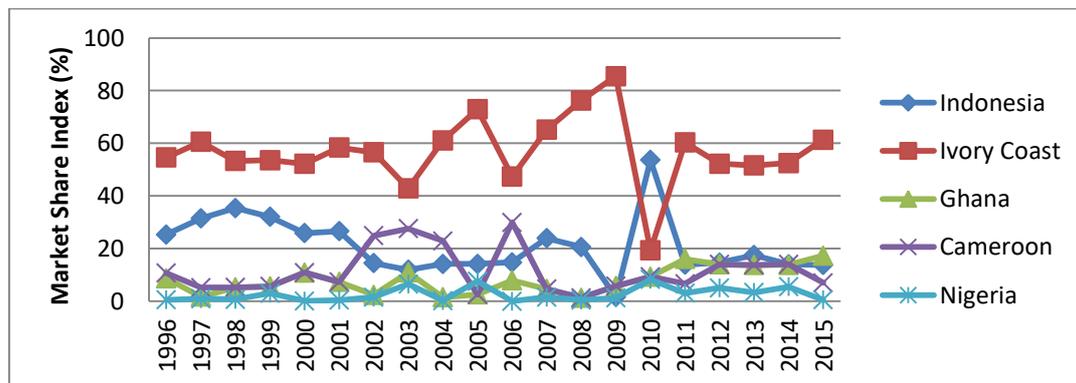


Fig-4: Market Share Index Based on USA Market
 Source : Based on data from FAOSTAT, ITC (Calculated).

Previous report [19] stated that the growth of the United States economy showed a negative number in 2009 when the global economic crisis caused a decline in the import of cocoa beans from Indonesia. The United States chose to import cocoa beans from Ivory Coast during an economic crisis because the United States considered the quality of cocoa beans from Ivory Coast, which would have implications for the processing of quality chocolates and with these qualities would provide high value selling for American chocolate. This is allegedly will be able to repair the economic crisis of the country [5].

On the other hand, the development of Indonesia market share in the Malaysia market showed a fluctuating trend and tends to increase in the period 1996-2010 (Figure 5). Malaysia is one of largest importing country for Indonesian cocoa beans. In 2011-2015, the market share of Indonesian cocoa had decreased significantly, although in 2013 had increased. In 2014-2015, the export market share of Indonesian cocoa beans smaller than Ghana and Ivory Coast. During 1996-2015, Indonesia contributed an average of 64.18%, then Ghana contributed 20.10%; Ivory Coast at 10.27%; while Cameroon and Nigeria only contribute an average of below 4%.

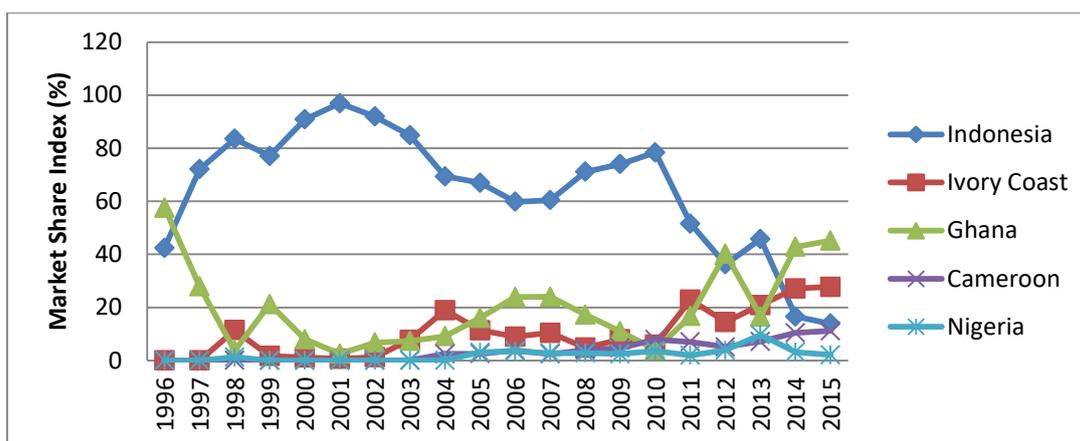


Fig-5: Market Share Index Based on Malaysia Market
 Source : Based on data from FAOSTAT , ITC (Calculated).

This phenomenon occurs because Indonesia is the largest exporter of cocoa beans in Southeast Asia, even in the last five years, Indonesia cocoa beans export accounted more than 94% export volume of ASEAN cocoa beans. The distance between Indonesia and Malaysia also be consider for Malaysia demand [12].

3. Indonesian Cocoa Beans Export Product Dynamic (EPD) Analysis

The third analysis is used Export Product Dynamics (EPD) approach. Development of competitiveness is important to improve the penetration of Indonesian cocoa in export markets, in terms both of deepening and market expansion. This method is used to capture the general picture of a trade where it can be seen the dynamism level of export growth on a certain period which will be grouped into 4 indicators: Rising

star, Falling star, Lost opportunity and Retreat. The competitive advantage of Indonesian cocoa commodities in export destination countries based on the EPD estimates is shown in Table 2.

Indonesian cocoa had competitive advantage in ASEAN market that is in Malaysia and Singapore market because showing market position is in Rising Star. As well as China also in the Rising Star position. This position indicated that cocoa had good performance, its mean cocoa commodity has fast growth and Indonesia gained additional market share from cocoa commodity in Singapore, Malaysia and China market. This showed that Indonesia's ability to fulfil the needs of imported cocoa commodities is in a dynamic position. Such market conditions must be maintained by Indonesia.

Table 2: Estimated EPD (Export Product Dynamics) Results of Indonesia Cocoa Beans in 1996-2015

Countries	Growth of export market (X) (%)	Growth of product market share (Y) (%)	Market position
Malaysia	16.55	58.54	Rising Star
Singapore	134.92	1.86	Rising Star
USA	254.40	-0.66	Falling Star
Netherlands	513.55	-0.41	Falling Star
Germany	105.09	-0.98	Falling Star
China	74.14	5109.82	Rising Star
Japan	27.37	-1.04	Falling Star

Source : Based on data from UN Comtrade

The competitiveness position of cocoa commodities in the Netherlands and Germany (EU), USA, and Japan is in the Falling Star quadrant, which indicated that cocoa commodity in the market had a competitive advantage, but the demand for cocoa market share decreased. This indicated that the cocoa commodity in the market is not dynamic, and this condition becomes unfavorable for Indonesia. So it takes market intelligence to see the market tastes of consumers in the Netherlands and

Germany (EU), USA, and Japan to increase market demand.

In this study explained that the ability of cocoa beans in responding to changes in market demand is very responsive for the ASEAN market and also China, while for the EU and US market is considered less responsive. This condition becomes very ironic, because the US market absorbs 81.2% export of Indonesia cocoa

beans in 2010 and USA became Indonesia's trading partner and is the second largest export destination of cocoa beans after Malaysia [5]. On the other hand, Indonesia's cocoa beans experienced very rapid growth in the China market, where in 2010 China only absorbed cocoa beans export by 3.6%.

The development of Indonesian cocoa beans share in the EU market is allegedly due to the discriminatory treatment of the EU against Indonesia cocoa beans. According to Oktriando [21] the Indonesia government is trying to find a solution to the problem of discrimination so that Indonesian cocoa can still be exported abroad, especially to the European Union with the minimum tariff burden. The International Cocoa

Organization (ICCO) is considered one of the ways that can provide solutions to the problems faced by Indonesia. The Government of Indonesia formulated a policy of joining ICCO membership. Through ICCO Indonesia can lobby the European Union to reduce the import duties of Indonesian cocoa even to the 0% tariff though. To officially join ICCO, Indonesia ratified the International Cocoa Agreement (ICA) in 2012.

4. VECM (Vector Error Correction Model) estimation Result

To identify the factors affecting of export market share of Indonesian cocoa beans, VECM analysis was performed. As shown by Table 3,

Table 3. Factors Effecting of Indonesian Cocoa Beans

<i>Short Term</i>		
Variable	Coefficient	p-value
MSI_d1_d1 (t-1)	1.043*	0.000
Domestic_Price_d1_d1 (t-1)	0.138	0.872
Export Vol_Ind_d1_d1 (t-1)	0.027*	0.066
Real_Exchange_rate_d1_d1(t-1)	0.054	0.921
World_Price_d1_d1 (t-1)	-0.056*	0.079
World_Stock_d1_d1 (t-1)	0.174	0.796
<i>Long Term</i>		
Variable	Coefficient	p-value
MSI_d1_d1 (t-1)	1.000*	0.000
Domestic_Price_d1_d1 (t-1)	-1.692*	0.000
Export Vol_Ind_d1_d1 (t-1)	1.328*	0.000
Real_Exchange_rate_d1_d1(t-1)	-0.212*	0.005
World_Price_d1_d1 (t-1)	0.204*	0.000
World_Stock_d1_d1 (t-1)	-4.873*	0.000

Description: (*) significant at the level of 10%

The short-run equation in the analysis of cocoa beans export market share showed that there are three variables that significantly affect the market share of cocoa beans, namely market share (MSI) in first lag, Export Volume (Export_Ind_d1_d1) in first lag, and World_Price_d1_d1 in first lag. The coefficient of Export volume is 0.027. Its means that if the export volume of cocoa beans in the first lag increased by one percent then the current cocoa beans export market share will also increase by 0.027 percent. World price had negatively affect, its means that if the world price of cocoa beans in the first lag increased by one percent then the current market share of cocoa beans will decrease. In the long term it can be seen that all variables such as Domestic Price, Export volume, Real Exchange rate, World price, and World cocoa stock significantly affect to market share of cocoa beans (MSI). Domestic price, real exchange rate, and world cocoa stock had negatively affect, while export volume and world price had positevely affect for Indonesian cocoa beans. Export volume variable is influence significantly against export market share in the short

and long term. This had implications from the phenomenon of Indonesian cocoa beans production which had increased tendency. The production of Indonesian cocoa beans is not all used for domestic consumption but is mostly exported to other countries. The number of Indonesian cocoa beans that have a rising trend makes export offerings also increase. The increase was followed by an increase in export volume of cocoa beans, so that the export market share of cocoa beans tended to increase as well.

Based on Variance Decomposition analysis, the contribution of variable shocks in the system to changes in certain variables can be known. In other words, FEVD explained the proportion of other variables in explaining the variability of the major endogenous variables of the study. In relation to FEVD, this study will discuss how the contribution of various variables contained in the research scope of cocoa beans export market share. Time period used in explaining this FEVD is 30 periods.

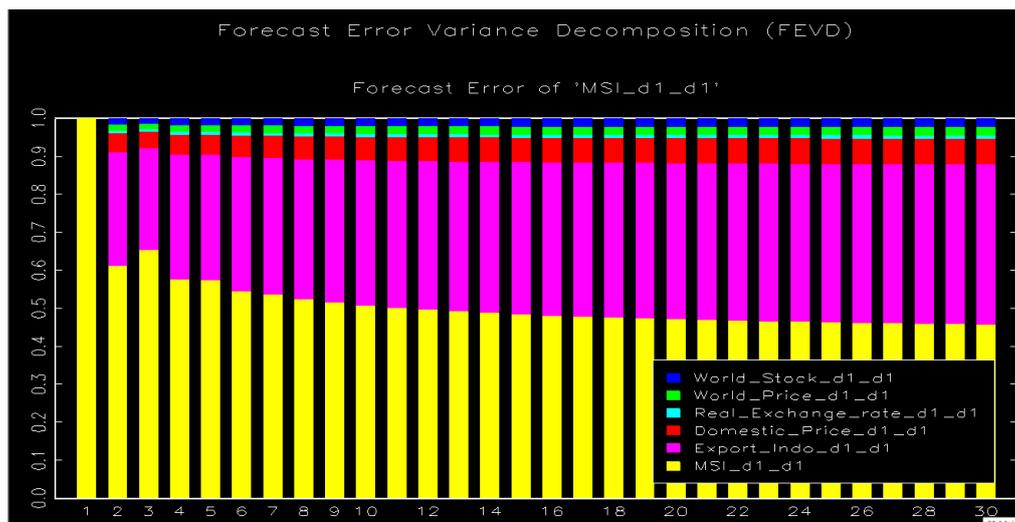


Fig-6: Forecasting Error Variance Decomposition Result

The result of the decomposition analysis showed that the fluctuation in the export market share of Indonesian cocoa beans during the next 30 periods. In the first period, fluctuations in the export market share were explained by the share of the export market itself by 100 percent. In the second period, the export market share of cocoa beans is explained by the export market share of cocoa beans by 61.00 percent, the export volume of cocoa beans by 30.00 percent, the domestic price of 5.00 percent, the real exchange rate of 1.00 percent, the world price of 2.00 percent, and world cocoa stock of 2.00 percent. Furthermore, the export market share of Indonesia cocoa beans is also strongly influenced by the export volume as a dominant influence variable. Domestic price, exchange rate, world price, world cocoa stock also affect to cocoa beans market share.

CONCLUSION

Based on comparative export performance (CEP) analysis showed that Indonesian cocoa had a comparative advantage on cocoa beans export but the other exporter countries, Ivory Coast, Ghana, Cameroon and Nigeria, had also comparative advantage in exporting cocoa beans and their CEP index are several times higher than Indonesia. From concept of market share, Indonesian cocoa had a competitive advantage in Malaysia and USA markets. Based on the Export Product Dynamics analysis showed that cocoa competitive position in the EU market (Netherlands and Germany market), USA market and also Japan are in Falling Star position, while cocoa performance in Malaysia, Singapore, and China markets are in Rising Star position. Factors that significantly influence to cocoa beans export market share are domestic price, real exchange rate, and world cocoa stock have negatively affect, while export volume and world price

have positively affect to export market share of Indonesian cocoa beans. This is also supported by the result of FEVD which stated that market share of cocoa beans variable are strongly influenced other than by the variable it self is also influenced by domestic price, export volume, real exchange rate, world price and world cocoa stock.

Indonesia is faced with low competitiveness compared to its competitor countries. The decline in competitiveness is related to the decline in export value of Indonesian cocoa beans, and also the declining trend of Indonesia's competitiveness due to the increase of export value of Indonesia cocoa beans relatively slower compared to the export value of world cocoa beans. So that some policies are required to maintain availability through increasing production and increasing price. In order to increase cocoa production and prices, there needs to be increased supervision on the policy of technology implementation such as Gernas (National Movement) of Cocoa. With appropriate control of Gernas technology program it is expected that the production and quality of cocoa will increase so that it can also increase the price, demand and export.

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