



ORIGINAL RESEARCH PAPER

Economics

INTRA INDUSTRY TRADE IN INDONESIA: CASE OF THE TEXTILE AND TEXTILE PRODUCT INDUSTRY

KEY WORDS: Export, Import, Intra industry, Textile

Revinda Yonita Permata Sari

Department of Economics and Development Studies, Faculty of Economics and Business, University of Jember Jl.

Lilis Yuliati, Siti Komariya*

Department of Economics and Development Studies, Faculty of Economics and Business, University of Jember Jl. *Corresponding Author

ABSTRACT

This study aims to see the intra-industry intensity of trade, especially in the textile goods sector between Indonesia and China. The result shows that Intra-textile textile trade intensity between Indonesia and China, from 2000-2013 based on the ISIC 321 category (textile industry) obtained by Indonesia and China intra-industry trade, with index value 53.9%. Suggestion to the The government is expected to be able to boost the performance of exports and consumption of the domestic community, because so far Indonesia's economic growth has been driven more by the performance of exports and household consumption which is still quite strong; Policies regarding investment licensing must be further simplified and there is a guarantee of the availability of energy supplies for the textile industry machinery. The government must also try to increase investment in the textile industry sector especially to modernize old or worn machines so that the textile industry can expand production.

INTRODUCTION

Global dynamics and developments especially in the trade sector are rapidly progressing and contributing to a country's economic growth. The high intensity of globalization has had an impact on increasing trade activities to the world market. The increasing mobility of goods and services especially for the world's largest trading partners between America and China requires various policy frameworks as a form of management and protection. So in this case, the role of the trade sector is one of the important priorities in advancing and improving the economy of a country (Dinovta, 2009). International trade carried out by a country is basically based on various backgrounds. This happens because of the theory of *comparative advantage* and *absolute advantage* in the Ricardian model (Kihc, 2002). In this model the economic element is prioritized to achieve a production efficiency in producing goods and services (Yuliati, 2007: 1). In addition, geographical factors are different in each country which results in the state not being able to produce certain goods that require collaboration and cooperation with other countries. So that these differences will be obtained *from trade gains*.

Several steps and efforts have been made to achieve a level of efficiency and effectiveness in international trade activities. One of them is through economic integration of countries within the scope of regionalist, either a free trade agreement, customs union (*custom union*) or a higher level of integration. Forms of trade agreements between countries as a form of regional cooperation are also carried out as stated in Mercury, NAFTA, *South Asian Free Trade Area* (SAFTA), ASEAN, *Central American Free Trade Area* (CAFTA), *Caribbean Community* (CARICOM) and so on. Regional trade agreements formed are part of the establishment of *free trade areas*(FTA). One of the implementations of Indonesia's policy strategy with its largest trading partners such as China (China) is contained in the *China-ASEAN Free Trade Area* (CAFTA). Within the framework of the CAFTA agreement, countries that are members of mutual agreements provide *preferential treatment* in three sectors including goods, services and investment. This aims to accelerate the flow of goods, services and investment among member countries so that a free trade area can be formed. *Preferential treatment* is special treatment that is more profitable than treatment given to other non-member trading partner countries in general. In agreement in the goods sector, the main component is the *preferential tariff* (Setiawan, 2012: 2).

An empirical study from Turkey conducted by Kilavuz et al. (2013) in his study concluded that the trade value of intra-industrial countries tended to have lower quality but had high intra-industrial values. Meanwhile Ito and Umemoto (2004) conducted a study on the automotive industry and automobile parts in

ASEAN-4 countries. The results show that the main source of intra-industry trade growth is driven by market size, the difference in decreasing market size and the increase in the size of the automotive industry itself. Another empirical study highlighting the intra-industry trade index was carried out by Thu, et al (2015). In its analysis shows that trade in ASEAN + 3 has experienced a significant increase over the past decade. However, global fluctuations also impacted a decline in the growth rate in 2010 and the proportion of intra-regional trade also declined in 2014. Meanwhile, the intra-industry trade index showed a relatively high number in most ASEAN + 3 countries, especially in manufacturing, equipment transportation, and food drinks. So that it can be concluded that the complexity of intra-regional trade performance is also inseparable from various aspects both internally and externally.

The form of intra-industry cooperation is also reflected in the formation of CAFTA and the work of the inter-nation between Indonesia and China as its biggest trading partners. Indonesia's trade and economic cooperation with China CAFTA has major implications for the domestic industry. CAFTA first surfaced at the 7th ASEAN Summit in Bandar Seri Begawan, Brunei Darussalam in November 2001 with several fundamental objectives. These objectives include strengthening and enhancing the economic, trade and investment cooperation of both parties, liberalizing trade in goods, services and investment, seeking new areas and developing economic cooperation that is mutually beneficial to both parties and facilitates more effective economic integration with ASEAN countries . During 1987, the dominance of Indonesia's export and import trade, which was dominated by oil and gas commodities, is currently experiencing a shift which is dominated by the non-oil and gas industry sector. This shift occurred after the government issued a series of policies and deregulations in the field of exports and imports, allowing producers to increase exports and imports. The non-oil and gas export commodity whose rapid growth rate is a commodity produced by the manufacturing (manufacturing) sector. At present Indonesia has 10 main export main products which can contribute around 50% of Indonesia's total non-oil and gas exports. Included in the top 5 categories of Indonesia's mainstay export products include Textile and Textile Products (TPT), electronics, rubber and rubber products, palm oil and forest products. Other products are footwear, automotive, shrimp, cocoa and coffee (Mutakin, Salam, and Driyo, 2008). The performance of Indonesia's export and import during the entry into CAFTA tends to be more volatile as seen from the movement of import exports in the Indonesian textile and textile products industry in Figure 1.

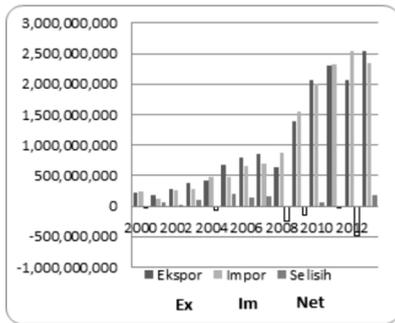


Figure 1.1 Developments of the Value of Exports and Imports of Textile and Textile Products (TPT) for 2010-2013, (Source: BPS, 2015, processed)

Based on the above data it can be concluded that the CAFTA agreement brought Indonesia's economy tended to be unstable, this was seen from the ups and downs of the level of surplus that Indonesia had achieved. With the blow of the CAFTA agreement, it has pushed more Chinese products into Indonesia. With the CAFTA agreement, the prices of imported goods from China tend to be cheaper compared to domestic goods. This is one of the losses received by Indonesia so that Indonesia's trade balance in China is getting deficit every year. If Indonesian industries often experience deficits, this means a decline in production due to reduced income, this will impact on the reduction of labor and the worst impact of the industry will go bankrupt and eventually the industry will be closed. This cycle not only affects government revenues but as a whole also affects Indonesia's economic stability which leads to Indonesia's instability. So from the above phenomenon and empirical explanation, this study aims to determine the intensity of trade, especially in the textile and textile products (TPT) industry between Indonesia and China.

METHODOLOGY

This research used secondary data and in the form of data time series that can be obtained from the literature study of Bank Indonesia, the Central Statistics Agency (BPS). Data period in this study is during the period 2000-2013. This analysis will be applied to the textile and textile product export-import product group based on the International Standard Industrial Classification (ISIC) 321 which will be converted into Standard International Trade Classification (SITC) 651, 659, 845, 846. The research method used is a calculation method made by Grubel and Lloyd (1975) to calculate the index of intra-textile trade in Indonesia with China. Based on the level of SITC (Standard International Trade Classification) 3 digits using the following formula:

$$IIT = 1 - \frac{x_j - M_j}{x_j + M_j} \times 100\% \tag{3.1}$$

where:

IIT_j: index of Intra-industry trade in industry j

x_j: value of exports from industry j

M_j: import value from industry j

Based on the above equation, the vertical lines in the numerator in formula (3.1) show that the value is absolute numbers (always positive). While the Grubel-Lloyd index value will vary from 0-1 or 0% - 100%, with the following explanation:

- a. if the index value = 0, it means what happens in the industry j is only inter-industry trade.
- b. if the index value is = 1, it means that in industry j is just intra-industry trade (perfect intra-industry trade).

The Grubel-Lloyd Index is said to be high if the value is greater than 40%, meaning that the trade that occurs is Intra-industry trade. Vice versa, if the Grubel-Lloyd index is less than or equal to 40%, then the trade that occurs is Intra-industry trade.

This research is a study of Intra-industry trade, so data based on the SITC classification are then converted into the industrial code classification of ISIC 321 (textile industry). In discussing these issues, the intensity of Intra-industry trade will be analyzed based on SITC and ISIC classification with the adoption of the analysis

method Grubel-Lloyd Index. The following below are data on the development of export and import values of the textile industry in the period 2000-2013 based on the classification of SITC 651, 659, 845, 846 used in the study.

Table 1. Operational definitions of variables

| Variable | Unit | Description |
|--------------------------------|--------------------|---|
| Eksports | US dollar per year | It is goods sold to residents of other countries, coupled with the hosted services to residents of the country in the form of transport by ship |
| Imports | US dollar per year | It is goods purchased from overseas, accompanied by procedures that accompany |
| the Intra-industry trade index | index | the export value of an industry from a country that is precisely balanced by the same import of industries from other countries (in this case the textile industry and textile products). The index value of Intra-industrytrade ranges from zero to one (0-1 or 0% - 100%). The Intra-industrytrade index = 0 means that only Intra-industrytrade occurs. Conversely, if the intra-industry trade index = 1 means that only Intra-industrytrade occurs between countries involved in trade |

RESULTS OF ANALYSIS AND DISCUSSION

Analysis of the intensity of textile trade between Indonesia and China in 2000-2013 was carried out by using two standards namely the *Standard International Trade Classification* three digit (SITC) (651,659,845 and 846) and *International Standard Industrial Classification* (ISIC) which were then analyzed by using the method *Grubel-Lloyd Index* (GL-Index). Based on the results of data analysis using the SITC standard shows that in the period 2000-2013 the textile commodity with the SITC 845 standard has the longest intra-trade trade intensity, namely ten years of research while the remaining three years the commodity with the SITC 845 standard is in the Inter-Industry category. As shown in Table 4.1. in Table 4.1 also shows that commodities with SITC 651 and SITC 846 standards have the same intensity i.e. four years of research are in the category of Intra-Industry and Nine years of research in the category of Inter-Industry. While other commodities, namely the SITC 659 commodity in the study period, have a two-year Intra-Industry trade index, which means that in the period of research Indonesia and China continue to trade, but traded commodities are not included in the category of Intra-Industry trade.

Table 2 The Indonesia-China intra-textile trade index with the three-digit SITC classification

| No. | SITC | Total IIT * |
|-------|------|-------------|
| 1 | 651 | 4 |
| 2 | 659 | 2 |
| 3 | 845 | 10 |
| 4 | 846 | 4 |
| Total | | 20 |

* = Number of IITs in the period 2000-2013 (unit of year)

Source: secondary data processed

Based on Table 4.1 it can be concluded that in the period 2000-2013, all commodities with SITC standards have a trade intensity of 40% with a total GL-Index value of 20 IIT, which means 40% of trade carried out by Indonesia and China in the period 2000-2013 in the Intra-Industry category, while 60% of trade is carried out by Indonesia and China in the Inter-Industry category. Based on the results of the analysis in Table 4.1 it can be concluded that the overall trade in the textile industry between Indonesia and China in the period 2000-2013 was Inter-industrial trade. This is in accordance with the GL-Index calculation guidelines which say that an Industrial trade can be said to be Intra-Industry if it has an IIT value of 40% more (40 <), whereas if the IIT value is equal to or less than 40% then the industrial trade is included in Inter-Industry

trade category. The results of this study are consistent with the research conducted by Yuliati (2007) and Suryaningsih (2012) who say that the IIT value of the GL-Index which is below or equal to 40% is Inter-Industry trade. On the other hand, the results of analysis using the ISIC 321 standard show different results as shown in Table 4.2.

Table 3 Index of intra-industry trade between Indonesia and China textile with ISIC classification 321 in 2000-2013

| Year | IIT * | Year | IIT* |
|------|--------------------|------|--------------------|
| 2000 | 11.78754542 | 2007 | 88.4018143 |
| 2001 | 19.76006494 | 2008 | 18.55464637 |
| 2002 | 16.58678478 | 2009 | 60.34567049 |
| 2003 | 8.714465175 | 2010 | 86.03284537 |
| 2004 | 82.46776292 | 2011 | 87.08567855 |
| 2005 | 21.69848606 | 2012 | 56.35451884 |
| 2006 | 27.72722938 | 2013 | 54.62446536 |

* = IIT value in units of %,

Bold = Intra-Industry

Unbold = Inter-Industry Trade

Source: processed secondary data

Based on the GL-Index analysis of commodities classified as 321 shown in Table 4.2 shows that in 2000 -2013 textile industry trade between Indonesia and China has an Intra-Industry index for seven years, namely in 2004, 2007, 2009, 2010, 2011, 2012, and 2013 with each percentage of IIT values different as shown in Table 4.2. Of the seven years of trade included in the Intra-Industry category, 2007 had the largest percentage IIT value of 88.40% while the smallest Intra-Industry value occurred in 2013 with an IIT value of 54.62%. Then seven other years of textile industry trade between Indonesia and China are included in the category of Inter-Industry. This shows that overall the textile industry trade between Indonesia and China has two categories, namely Intra-Industry and Inter-Industry, this is indicated by each category having a percentage of 50% (seven years).

Export-import activities have a very important role in driving economic growth of a country, besides that export-import activities also have an important role in maintaining the stability of the country's economy (Ministry of Trade of the Republic of Indonesia, 2016; Research and Development Center for Foreign Trade, Republic of Indonesia, 2009). The condition of the past few years has been a trade war between China and America, which has had a significant impact on trade partner countries, one of which is Indonesia (Bank Indonesia, 2016). China is one of Indonesia's main trading partner countries, one of the main trade commodities between China and Indonesia, namely textile industry commodities. On the other hand, the textile industry is one of the commodities that has a major contribution in generating foreign exchange and is also a contributor to economic growth in terms of non-oil and gas exports (Bank Indonesia, 2016; Ministry of Trade of the Republic of Indonesia, 2016). Data from the Indonesian economic report shows that the export value of the textile industry in 2000-2013 is higher than its import value, this indicates that the international trade in the textile industry is worth a surplus, but it is not owned by all export commodities from textile products, this is appropriate with the results of data analysis showing that textile commodities with the SITC 845 category are included in the Intra-Industry category within ten years of the study. While industrial commodities in the SITC 846, 651 and 659 categories were dominated by Inter-Industry trade. The Ministry of Commerce in 2016 revealed that the export products of the textile industry were dominated by apparel and yarn products.

On the other hand, the size of exports carried out was influenced by several factors both internal and external. Some internal factors are product quality, technology used, capital level which will also have an impact on the price of goods and various other factors. Whereas external factors, namely market demand, in this case, are the demand for exports of textile products in China, which will affect the amount and value of Indonesian exports. In addition, the increasing level of competition between the TPT industry products also affects the demand for Indonesian exports. On the other

hand, the economic conditions of trade destination countries also affected the demand for textile exports in the textile industry (Bank Indonesia, 2016). The increasing competitiveness of textile products in several textile manufacturing countries such as Bangladesh and India also affected the number of textile products exports, making trade relations between Indonesia and China in the textile industry products dominated by Inter-Industry relations as shown in the results of analysis with SITC standards and ISIC (Agarwal, Kaur, & De, 2017; Bank Indonesia, 2016). This shows that there are other potential commodities that can be increased in maintaining and improving trade relations between Indonesia and China to increase the surplus value of Indonesia's trade balance. In addition, the lack of intensity of the textile industry trade activities between Indonesia and China is also caused by the potential of other countries which are also one of the main destination countries for export of textile products such as America and Japan (Ministry of Trade of the Republic of Indonesia, 2014; Research Center for Foreign Trade, Ministry of Trade Republic of Indonesia, 2009). On the other hand, business actors with the government must also increase the competitiveness of the textile industry by finding market shares that still have considerable opportunities and potential to be entered (Ministry of Trade of the Republic of Indonesia, 2014; Ministry of Trade of the Republic of Indonesia, 2016), this is due the market share that China has entered is impossible for Indonesia to enter, on the other hand, the market share of Bangladesh and India has also entered quite a lot, so the Indonesian PTP industry must choose other market segments that have great potential to improve the competitiveness of textile products Indonesia.

CONCLUSION

Based on the results of data analysis and discussion some conclusions were obtained, namely: Intra-textile textile trade intensity between Indonesia and China, from 2000-2013 based on the ISIC 321 category (textile industry) obtained by Indonesia and China intra-industry trade, because the overall intra-industry trade index is 53.9%. Suggestion to the The government is expected to be able to boost the performance of exports and consumption of the domestic community, because so far Indonesia's economic growth has been driven more by the performance of exports and household consumption which is still quite strong; Policies regarding investment licensing must be further simplified and there is a guarantee of the availability of energy supplies for the textile industry machinery. The government must also try to increase investment in the textile industry sector especially to modernize old or worn machines so that the textile industry can expand production.

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