



NEW UPDATE OF COMPARATIVE ADVANTAGE AND EXPORT GROWTH OF ASEAN COUNTRIES: THE CASE OF ASEAN TEXTILE INDUSTRY

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Abstract

The problem in this study is based on the phenomenon of the increase of international trade trend of intra-ASEAN' TTP (Textiles and Textile Products) products, while competitiveness and export growth show a decline. This is inseparable from the market access to each country, which can open opportunities and add value for the countries to develop textile products. The purpose of this study was to obtain empirical evidence and the results of the latest studies regarding market access conditions, trade competitiveness, and the development of exports of textile products during the 2015 - 2020 period as well. The method used is descriptive-quantitative which includes the Revealed Comparative Advantage Index (RCA) and Constant Market Share Index (CMS). The findings show that the market access of ASEAN countries is quite high, while the competitiveness shows an unsatisfactory development trend. ASEAN countries have an RCA value <1 , and the export growth trend as well does not look good, reflected in the negative CMS value. This research can make a major contribution to decision-makers to increase competitiveness through



market access, export excellence and growth, expanding regional cooperation, using products with lower categories but needed by the market, and improving better competitiveness.

Keywords: Constant Market Share, Market Access, Revealed Comparative Advantages, Competitiveness, Export Growth, ASEAN TTP

INTRODUCTION

The Textile Industry of Textile Products (TTP) is one of the sectors that receive priority for the development of Intra-ASEAN priority sectors. This sector is considered important because it can meet the needs of clothing, especially in ASEAN countries. The textile industry sector also has promising market prospects in the ASEAN market. Because of its huge numbers of the area and the population, ASEAN is able to make its market get higher with Gross Domestic Product (GDP per capita) on average per capita reaching US \$ 13,472.8 (ASEAN, 2020). The total value of international trade among ASEAN countries seems to increase as well as the growth of intra-ASEAN exports and imports from 2015 to 2020 although the difference in the total value of imports and exports is not quite significant (Esmatzada et al., 2019); (Ramdan et al., 2020). These export and import trends can be seen in Figure 1 below.

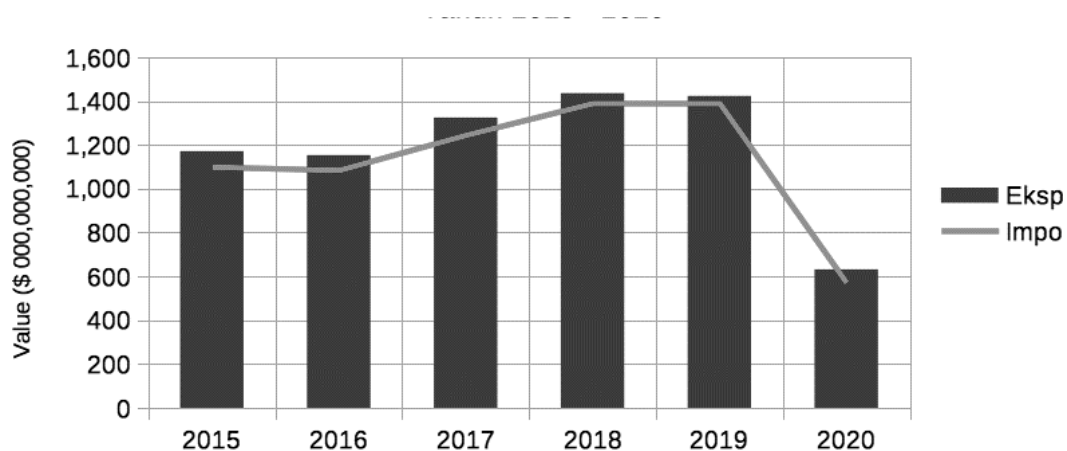


Figure 1. Export-and-Import Commodity Data Trends of ASEAN Countries

Source: (Authors Calculation, 2020), Data 2020 Term I.

Meanwhile, the textile and apparel industry in ASEAN countries plays an important role because ASEAN is a world-famous producer and exporter of textiles. The success of this industry cannot be separated from the cooperation of the ASEAN Free Trade Agreement

(AFTA) countries and regional incorporation efforts which make a major contribution to the progress of the industry (Hamid & Aslam, 2017).

The textile and clothing industry are unique because it involves the production of value-added textiles and clothing in many stages of production. Its production stages require different factors of endowment, technology, and support systems. ASEAN countries have long history in the process of trade liberalization through AFTA (Okabe & Urata, 2014). Since the AFTA was signed in 1993 and finally the ASEAN Economic Community was established in 2015, efforts have been made to integrate the industry. The efforts were focused to remove non-tariff barriers. During the 2015-2020 period, ASEAN has exported its 5 leading textile products.

Table 1. Data for ASEAN Countries' 5 TTP Export Products

Product Category (HS)	Products	Export Value (\$, 000,000,000)
#60	Knitted Fabrics	5.70
#64	Footwear, Jugs, and Articles	5.69
#54	Synthetic Film or Art	4.41
#61	Clothing and Accessories	3.85
#55	Synthetic Fiber or Article	3.82

Source: Authors' Compilation, 2020

Table 1 above shows the types of TTP leading products in ASEAN countries. The products categorized as HS #60, #64, #54, #61, and #55 are the highest export values by ASEAN countries. Meanwhile, the export value of textile products from ASEAN countries shows that the highest percentage of exports is held by Vietnam (31%), followed by Thailand (25%), Singapore (15%), and Indonesia (14%), and other countries (0% -12%). This can be seen in Table 2.

Table 2. Exports of TTP Products (HS #50-#64) in ASEAN Countries (2015-2020 in US\$ 000)

Types of Products (HS)	Cambodia	Laos	Myanmar	Malaysia	Thailand	Brunei	Philippine	Vietnam	Singapore	Indonesia
#50- #64	744	70	574	4.459.978	9.253.359	8	250	11.160.344	5.751.334	5.160.453
%	0,0021	0,0002	0,0016	12,4625	25,8567	0,0000	0,0007	31,1854	16,0710	14,4199

Source: Authors' Compilation, 2020

The ASEAN textile and textile products (TTP) industry consists of the production of natural yarns and also synthetic yarns and fabrics, produced in an ASEAN country and then sent to other ASEAN countries to be made into the final products and the integration in the global supply chains as well (Siy & Carillo, 2007).

In term of level of incorporation, ASEAN has started the ASEAN Roadmap for Integration of Textiles and Apparel Products Sector (ARITAP). It also regulates the exclusion of intra-ASEAN trade tariffs for products on all sectors, as well as other measures to promote incorporation. The elimination of global quotas also has a greater impact on the level of product integration among ASEAN countries, compared to the elimination and reduction of tariffs mandated in ARITAP. The elimination of this quota is based on the WTO Agreement on Textiles and Apparel (ATC) of January 1, 2005 (Truett & Truett, 2016; Viswaprakash & Sentamilselvan, 2012). The level of supply chain integration also reflects the variation or uniqueness of each ASEAN economy. Cross-border integration is fostered by investment from fabric-producing countries in ASEAN to low-price clothing-producing countries such as Vietnam and Cambodia (Ariff & Hill, 2011).

The textile and clothing industries of ASEAN countries are currently facing stiff competition from China, Bangladesh, and India. Companies and factories operating in these countries indeed have the support of better value chain management. This means that ASEAN countries can lose money if the incorporation within ASEAN countries in terms of creating a value chain problems fail (Hamid & Aslam, 2017; Widodo, 2008). By studying the nature of competitiveness by product type among ASEAN countries more broadly, market access conditions consisting of tariffs and import regulations, export growth of each ASEAN countries, and understanding the profile of leading products and products with special categories will help to improve and enhance competitiveness among ASEAN countries (Ridwan et al., 2015).

Based on the initial study of ASEAN international trade, the trend of intra-ASEAN exports and imports shows an increase, yet from competitiveness and export growth factors, it shows the opposite condition. This is inseparable from factors such as ease of market access to each ASEAN country and opening opportunities and added value for ASEAN countries to develop their textile products, but there is a gap between the rules that apply within ASEAN where there is no uniformity of import regulation to each country. The enactment of free trade and the MEA should have an impact on changes in the structure of the textile market in ASEAN countries. Opportunities that arise will open the door for the export of textile products from ASEAN countries in the international market, especially intra-ASEAN with no trade quota restrictions. On the other hand, the elimination of quotas has led to an increasingly competitive climate in the textile trade of ASEAN countries due to the increasing number of new players

entering the international textile market and becoming a challenge for the textile industry of ASEAN countries. The trend of competition among ASEAN countries also shows a large gap where each player has an export advantage for certain product categories. These problems can be used as a positive signal as well as an indication for ASEAN countries to grow the competitiveness of their textile exports and the growth of their textile exports (Fuadi, 2018). Based on the identification of the problems mentioned above, the research problems can be formulated as follow as:

1. How is the market access for TTP commodities in ASEAN countries in the ASEAN region during the 2015-2020 period?
2. How is the trend of international trade competitiveness of ASEAN countries' textile commodities in the ASEAN region during the 2015-2020 period?
3. How is the export growth trend of ASEAN countries textile products influenced by the effects of commodity composition, commodity market distribution, and the competitiveness of ASEAN countries textile products during the 2015-2020 period?

The purpose of this research is to find out the market access for TTP commodities, trends in international trade competitiveness and trends in the export growth of textile products from ASEAN countries influenced by the effects of composition, distribution of commodity markets, and the competitiveness of textile products in ASEAN countries during the 2015-2020 period.

LITERATURE REVIEW

International Trade

International trade is something that is absolutely done by every country (Babcock et al., 2019). Nowadays, there is not a single country that is in a state of autarky -an isolated country- without economic relations with other countries. This is because no country can meet its needs independently (Gowland, 2010), as well as the capability of a country to produce goods or services. As an illustration, when a country wants to produce an item but the cost for producing it is way more expensive compared to buying the item from another country, it will prefer to buy it from other countries. International trade can only occur if the trade benefits each of the transacting parties (Babcock et al., 2019).

International trade is considered as an engine of growth of a country, especially in developing countries. This situation is due to the direction and composition of trade between several countries and affects the economic structure of a country. Countries do trades to gain from trade. According to Krugman & Obstfeld (1994), Feenstra (2010) the reasons international trade can contribute to trade gain are they are diverse from each other aiming to

achieve economies of scale in production, meaning that if each country only produces a certain number of goods, they can produce these goods on a larger scale and consequently more efficient than when it tries to produce all kinds of goods (Waugh, 2010). According to mercantilism, trade can be carried out by exporting as much as possible and suppressing imports as little as possible. This is the only way to become a rich country. Mercantilists assume that a rich country is a country that has the most reserves of gold and precious metals (Salvatore, 2012). In contrast to the mercantilist view, Adam Smith in Schumacher (2012) assumes that trade between two countries is caused by absolute advantage. If a country is more efficient in manufacturing a commodity than another country but it is less efficient at producing other goods than the other one, these two countries will benefit by specializing in producing goods that have an absolute benefit and exchange them for goods that have absolute losses (Salvatore, 2012).

TTP Commodity Trading Competitiveness

The concept of comparative advantage introduced by David Ricardo in his book “The Principles of Political Economy and Taxation” (2020). He states that a country can continue to trade even though one country does not have an unqualified benefit or in other words has an unqualified disadvantage compared to other countries in producing two goods. In the law of comparative advantage according to Moloji and Marwala (2020), there is an exclusion if the Domestic Exchange Base value of the two commodities is 1:1 (importing is the same as producing), then the trade will not happen. In general, David Ricardo (2020) bases his concept on several numbers of simplified assumptions that there are only two countries and two goods, trade is independent, there is perfect labor mobility within countries but no mobility between two countries, the manufacture cost is constant, there is no transportation costs and there is no change in technology. In international trade, various factors affect the export growth of a country such as market distribution, the composition of commodities, and competitiveness. The effects of each of these three factors can be measured how they affect the export growth of a country (Jamil, 2019).

The Theory of Revealed Comparative Advantage (RCA)

Comparative advantage is an important concept in the economic theory. The concept of comparative advantage can describe how trade between countries happen (Moloji & Marwala, 2020). With this concept, each country will be able to identify which direction to invest in and to which countries their trading commodities should be traded by considering their comparative advantage. In David Ricardo’s theory of comparative

advantage (2020), two countries will trade if the trade can benefit both parties. If a country can produce a commodity at the same price compared to buying it from another country, then trade between the two countries will not occur. One method that can be used to determine the comparative advantage of a country is the Revealed Comparative Advantage (RCA) (Balassa, 1965; French, 2017; Herciu, 2013; Laursen, 2015; Widodo, 2008, 2010).

The Theory of Constant Market Share (CMS)

In international trade, various factors affect the exports growth of a country. Those factors are market distribution, commodity composition, and competitiveness. One method to measure the effect of each factor on the exports growth of a country is the Constant Market Share Method (Ahmadi-Esfahani, 2006; Aisha Nuddin et al., 2018; Fagerberg & Sollie, 1985). The CMS method was original introduced by Tyszynski (1951) in his research on the analysis of changes in trade in manufactured commodities in 1899 – 1950. Two main reasons can change a country's market share, the first, relates to changes in the relative importance of product groups and the second, relates to changes in the share of individual product groups in a country (Tatarer, 2004).

Based on the method used by Tyszynski (1951), Leamer & Levinsohn (1995) developed the CMS method that the method has three assumptions consist of the effect of market distribution, and the effect of competitiveness. This approach uses the understanding that the export growth rate of a country can be larger, the same, or smaller than the world's average export growth rate (Tambunan, 2004). According to Widodo (2010), exports of a country can fall or rise rapidly due to the commodity exports may be relatively concentrated which causes demand to grow slowly.

The Research's State of the Art

The previous studies done by other researchers do not have any similarities with the current research topic. The previous studies mostly focused on one testing method, either the RCA method or the CMS method. Meanwhile this study combines two research methods, namely the RCA and CMS testing methods and coupled with the market access analysis to answer the research phenomena and the research problems. There is a gap between previous studies and this study which is the state of art and that is what makes this study unique and different and manifested in the research novelty.

Conceptual Framework

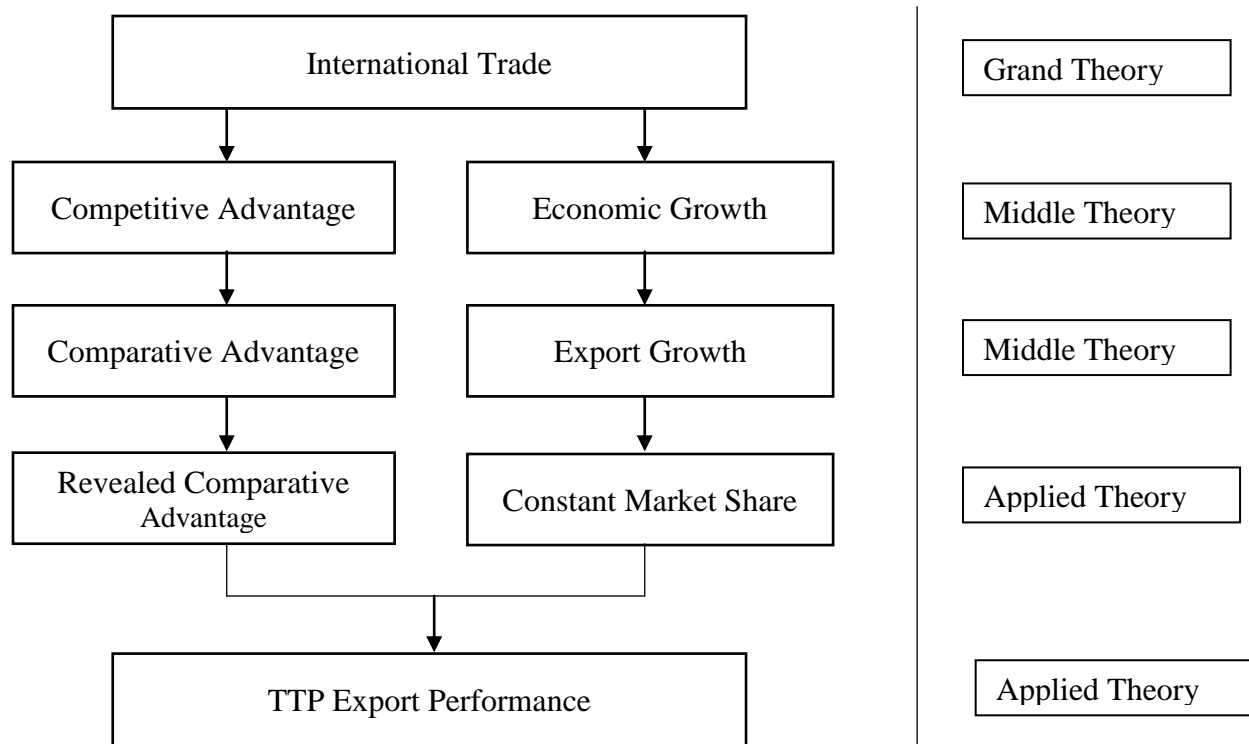


Figure 2. The Conceptual Framework

Studies related to Indonesia's international trade issues in the ASEAN region cannot be separated from the theory of international trade, where there are competitive and comparative advantages and the international trade is influenced by the export growth of each country. The measure of comparative advantage and export growth will describe the overall export performance, which is schematically shown in Figure 2 above.

RESEARCH METHODS

Research Design

This study was a descriptive, quantitative research. The descriptive design of this study aims to describe factors of market access, competitiveness, and export growth. A quantitative design is a scientific approach to managerial and economic decision which starts from data that is processed and manipulated into valuable information in decision making (Kuncoro, 2007).

Data Source and Method to Determine Data

This study used sources of information from the results of previous studies in the form of secondary data, namely the results of related researches. In this study, the data used was the

trade data of ASEAN countries in time series from 2015 to 2020. The data time series collected as continue analysis of previous research (before 2015) and to provide a new trend of market share data and comparative advantage data in order the decision marker got a new perspective. Time series data is data that is chronologically arranged according to time on a certain variable (Kuncoro, 2007).

Data Collecting Technique

The data collecting technique in this study is secondary data collection through literature review, websites, and scientific journals. In this study, the samples used were trade data recorded from 2015 to 2020 at the Ministry of Trade, official data from World Trade Organization and Agreement on Textiles and Apparel, and intra-ASEAN trade data.

Data Analysis Method

The analytical method used in this research consists of two methods, namely the RCA which aims to measure ASEAN countries' international trade competitiveness of TTP commodity in the ASEAN region, while the CMS is used to measure the export growth of TTP commodity from ASEAN countries which is influenced by the effects of commodity composition, distribution of commodity markets, and the competitiveness of TTP commodities during the 2015-2020 period.

The Revealed Comparative Advantage (RCA) Method

The right way to obtain indicators to determine the commodity competitiveness is by the RCA method. It is used to measure the export performance of a product from a country by calculating the share of a product in a country's total exports compared to the share of that product in the world trade. A country's RCA index value for a commodity is greater than 1 indicating that the competitiveness of that country's commodities has increased compared to the previous year. Conversely, if the RCA index value shows a value below 1, the competitiveness of the commodity from that country decreases (Balassa, 1965). The RCA mathematical formula is as follows:

$$RCA = \frac{(X_{ia}) / (TotalX_a)}{(X_{iw}) / (TotalX_w)}$$

Where:(1)

RCA = Revealed Comparative Advantage

X = Export or export value

i = Commodity type

- a = Country of origin (ASEAN countries)
 w = The world

Constant Market Share (CMS) Method

The CMS method is a method used to simplify a country's export growth into several determinants of the country's export growth. This method can also be used to decompose export growth of certain commodities from a country. In this study, the CMS method was used to decompose the growth of textile exports in ASEAN countries. In this method, there are three determinants of the export growth namely market distribution, commodity composition, and competitiveness effects. The CMS method is calculated using the following mathematical formula (Sa'idy, 2013):

$$X_{ij2} - X_{ij1} = mX_{ij1} + \{(mi - m)X_{ij1}\} + \{X_{ij2} - X_{ij1} - miX_{ij1}\}$$

Where:(2)

X_{ij1} : Country X's commodity exports to destination countries in year 1(t-1) (US\$)

X_{ij2} : Country X's commodity exports to destination countries in year t (t) (US\$)

m : Percentage of general imports growth in destination countries (%)

mi : Percentage of product import growth in destination countries (%)

RESULTS

This section discusses the context and research objectives in the form of objects and research locations related to the problem of the study, uncovers, and explains the results of the study, and then analyzes the results of the study used the approach described in the previous chapter. This section also presents the results of the market access analysis in each ASEAN country, comparative advantage, and export growth of TTP (Textiles and Textile Products) of ASEAN countries. The types of products analyzed were products with the HS2 category (codes: 50 - 64) which are categorized in Table 3 as follows:

Table 3. TTP Product Data based on the HS2 Code of ASEAN Countries

No	Kode HS	Description
1	HS #50	Silk
2	HS #51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric
3	HS #52	Cotton
4	HS #53	Other vegetable textile fibers; paper yarn and woven fabrics of paper yarn
5	HS #54	Man-made filaments; strip and the like of man-made textile materials
6	HS #55	Synthetic filament tow.

7	HS #56	Wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof
8	HS #57	Carpets and other textile floor coverings
9	HS #58	Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery
10	HS #59	Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable for industrial use
11	HS #60	Knitted or crocheted fabrics
12	HS #61	Articles of apparel and clothing accessories, knitted or crocheted goods
13	HS #62	Articles of apparel and clothing accessories, not knitted or crocheted
14	HS #63	Other made up textile articles; sets; worn clothing and worn textile articles; rags
15	HS #64	Footwear, gaiters and the like; parts of such articles

Table 3...

Source: Regulation of the Minister of Finance of the
Republic of Indonesia Number 6/Pmk.010/2017

Meanwhile, the results of the research show that products with HS #60, #64, #54, #61, and #55 categories are the leading textile products of ASEAN countries due to the largest number of exports in the last 5 years and they are products that are in great demand. This result is also the biggest challenge and opportunity for ASEAN countries which have the advantage to focus their products on the categories mentioned above to export to intra-ASEAN. A complete picture and export value of leading TTP products can be seen in Figure 3 below.

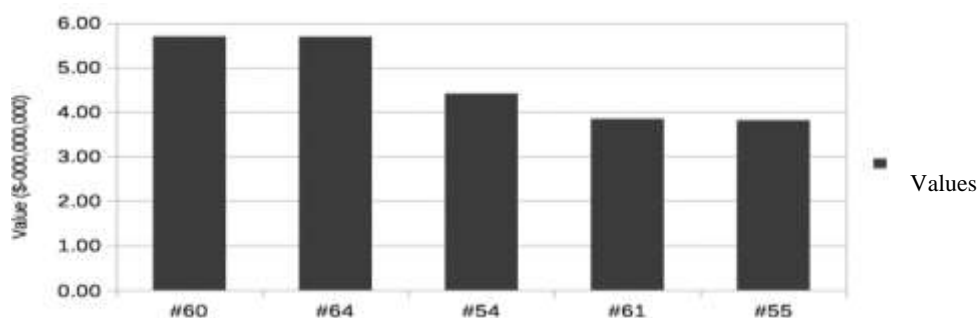


Figure 3. Leading TTP Commodities of ASEAN Countries

Note: #60: Knitted fabrics, #64: footwear, #54: synthetic materials,
#61: apparel, #55: synthetic fibers

ASEAN Country TTP Product Profile and Its Advantages

The description of the textile products of ASEAN countries as seen from Figure 3 above shows in general based on the category of quantities exported during 2015-2020. The detailed description of TTP products from ASEAN countries can be seen in Table 4.

Table 4. Profiles of TPT Export Commodities (HS2) of ASEAN Countries (US\$)

#HS2	Cambodia	Laos	Myanmar	Malaysia	Thailand	Brunei	Philippine	Vietnam	Singapore	Indonesia
50	14.550	591.595	5.490	2.373.102	2.530.557	2.208	18.925	37.200.158	20.189.335	2.151.755
51	77.928	0	192	21.650.648	4.568.725	0	200	7.707.333	11.394.190	711.849
52	2.283.786	610.732	6.756.594	387.306.289	930.304.300	52.095	5.471.910	792.950.973	132.069.900	409.624.973
53	1	459.217	194.222	2.203.881	2.578.920	3.463	1.502.188	9.097.647	4.381.806	5.542.591
54	2.777.113	99.092	3.535.127	404.330.264	1.397.122.384	10.749	2.950.012	1.246.256.638	299.858.537	1.057.734.309
55	21.515.488	973.117	8.823.760	345.747.991	1.753.176.087	19.806	8.791.075	448.920.967	390.290.631	837.156.450
56	1.710.385	86.409	1.897.829	412.450.831	1.203.673.871	176.622	31.810.682	450.084.599	259.301.417	199.313.222
57	5.519	175	218.363	29.025.376	159.676.163	208.188	161.566	8.604.942	33.991.970	73.503.360
58	1.867.188	165.695	578.519	45.039.547	329.422.759	39.164	34.249.896	239.176.091	88.837.705	115.206.518
59	1.286.064	138.814	60.721	168.210.665	255.248.774	88.792	12.608.940	624.043.106	417.977.208	102.666.137
60	91.101.410	319.776	1.015.023	739.853.104	1.357.306.493	95.886	947.759	2.811.272.709	383.767.479	312.191.217
61	403.152.110	13.641.815	112.209.108	615.433.802	354.168.178	1.222.391	26.108.606	836.559.476	1.010.296.334	475.817.988
62	94.043.203	4.041.395	357.938.562	350.574.474	423.892.780	2.701.486	18.704.924	692.930.195	1.044.417.926	654.480.444
63	19.852.750	757.068	39.021.467	495.719.376	561.000.266	2.136.544	88.653.831	496.759.081	319.274.336	188.130.562
64	104.197.783	48.299.776	41.969.074	440.058.178	518.689.016	1.105.646	18.198.248	2.458.780.551	1.335.284.753	726.222.076
Total	743.885.279	70.184.678	574.224.050	4.459.977.525	9.253.359.273	7.863.038	250.178.762	11.160.344.466	5.751.333.527	5.160.453.450
%	2%	0%	2%	12%	25%	0%	1%	30%	15%	14%

Table 4 shows that each country has its own advantages (in the highest number of exports in each category). Out of the 15 categories of HS2 textile products, Thailand has 6 leading products, namely HS2#54, #55, #56, #57, #58, and #63, while Vietnam has the same number of leading products category, which is HS2#50, #52, #53, #59, #60, and #64, followed by Singapore with 2 leading products, namely HS2#61 and #S62 and 1 leading product from Malaysia, namely HS2#51. From the table, it can also be seen the largest and the smallest numbers of exports of each country in each category. In total exports, products in the HS2#60 category (knitted or crocheted fabrics) are the most exported by ASEAN countries, while the HS2#51 category (wool, fine or coarse animal hair; horsehair yarn and woven fabrics) is the smallest number to export by ASEAN countries.

The Results of Market Access Analysis

The market access analysis is a requirement that must be met by exporters from ASEAN countries, which is indicated by the ability to meet the regulatory requirements set by each country and the value of import duties as part of protection against each country's industry. Based on observations and the analysis of market access data, it can be seen that certain countries have advantages over other countries (Table 5).

Table 5. Applied Tariff and Total Regulatory Data for ASEAN Countries

Product HS Code	Country	Applied Tariff			Trade Remedies	Total Regulatory Requirements	Preferential Regimes
		MFN	Preferential tariff for AANZFTA countries	Preferential tariff for ASEAN			
50 – 64	Singapore	0%	0%	0%	-	18	-
50 – 64	Malaysia	0%	20%	0%	-	17	-
50 – 64	Vietnam	0%	30%	0%	-	15	-
50 – 64	Cambodia	0%	15%	0%	-	0	-
50 – 64	Myanmar	3%	20%	0%	-	0	-
50 – 64	Thailand	0%	20%	0%	-	5	-
50 – 64	Brunei	0%	5%	0%	-	9	-
50 – 64	Indonesia	0%	25%	0%	-	46	-
50 – 64	Laos	0%	20%	0%	-	57	-
50 – 64	Philippine	0%	15%	0%	-	158	-

The Results of the Comparative Advantage Analysis

The comparative advantage of ASEAN countries is the ability of each country to produce textile products compared to other countries that have the same resources or a country which has an advantage in producing textile products compared to other countries. The competitiveness or comparative advantage of a country's textile products can be assessed from the RCA (Revealed Comparative) value. RCA value of a country's product >1 indicating leading or having competitiveness, if the value <1 indicates less leading or less competitive. The RCA value of a product is the ratio between exports of product X to exports of all commodities and imports of product X to imports of all commodities to that country.

Table 6. RCA Value Data for ASEAN Countries 2015-2020

No	1	2	3	4	5	6	7	8	9	10
Country	Cambodia	Vietnam	Thailand	Indonesia	Myanmar	Malaysia	Singapore	Philippine	Laos	Brunei
2015	4.61	1.91	0.73	0.78	0.38	0.34	0.26	0.10	0.15	0.03
2016	3.49	2.09	0.69	0.67	0.80	0.33	0.25	0.10	0.08	0.01
2017	3.12	2.19	0.71	0.56	0.38	0.32	0.24	0.10	0.12	0.03
2018	4.06	2.39	0.68	0.55	0.56	0.29	0.22	0.09	0.04	0.04
2019	3.44	2.72	0.71	0.52	0.85	0.33	0.23	0.08	0.16	0.01
2020	-	2.97	0.69	0.73	-	0.33	0.25	0.38	-	0.00
Average	3.74	2.38	0.70	0.63	0.59	0.32	0.24	0.14	0.11	0.02

The Results of Export Growth Analysis

The growth of TPT commodity exports from ASEAN countries can be seen from the value of CMS (Constant Market Share) which consists of composition, distribution, and competitiveness effects. The commodity composition effect shows that exports will only be concentrated in commodities whose demand tends to be elastic or inelastic to income. The market distribution effect explains that exports will tend to move towards markets that are growing faster or slower than the world's average. The effect of competitiveness explains that an exporting country can be more competitive with other exporting countries if its productivity is higher. The CMS values of each ASEAN country are as shown in Table 7 below. The results of the CMS analysis of each country show the export growth of textile products as follows.

Table 7. ASEAN Countries' CMS Value Data

No	Country	Average RCA	CMS			CMS Total	CMS Avg
			Compositi on Effect	Distribution Effect	Competitiven ess effect		
1	Cambodia	3.74	-3,557,857	-79,375,687	-42,526,464	-125,460,007	-25,092,001
2	Vietnam	2.38	-65,107,831	-1,211,452,732	1,102,987,743	-173,572,820	-34,714,564
3	Thailand	0.70	-19,369,568	-662,030,017	-194,929,183	-876,328,768	-175,265,754
4	Indonesia	0.63	-663,556	-293,606,530	-274,139,120	-568,409,207	-113,681,841
5	Myanmar	0.59	-7,459,328	-64,557,963	94,829,754	22,812,462	4,562,492
6	Malaysia	0.32	-13,383,107	-341,155,191	-26,908,295	-381,446,593	-76,289,319
7	Singapore	0.24	-4,228,883	-348,239,549	-321,714,149	-674,182,580	-134,836,516
8	Philippine	0.14	-231,898	-10,051,236	41,149,680	30,866,546	6,173,309
9	Laos	0.11	-590,316	-10,160,614	11,860,607	1,109,677	221,935
10	Brunei	0.02	68,397	-358,671	-920,828	-1,211,102	-242,22

DISCUSSIONS

The market access analysis divided to 3 categories (low, moderate, and high) and explained by country as follow as;

The Market Access Analysis of Singapore, Malaysia, and Vietnam

From the market access analysis data for TTP products from Singapore, Malaysia, and Vietnam it shows the application of tariff requirements (duties) for TTP products based on the Applied Tariff category with the provisions of Most Favored Nation (MFN), which is generally applicable tariffs based on ITO provisions and tariffs/duties that apply specifically (preferential tariff) for the ASEAN-Australia-New Zealand Free Trade Area (AANZFTA) countries. From Table 6, Singapore provides the lowest tariffs/duties (0%) to intra-ASEAN countries, AANZFTA, and other countries, but Thailand imposed the highest tariff for AANZFTA (30%), The data also shows that the regulatory requirements related to the import of goods into Singapore, Malaysia, and Vietnam, all the countries categorized as medium competitive with imposed the regulation between require 15-18 rules/regulations (details on ASEAN's website, 2000). This shows that Singapore, Malaysia, and Vietnam have moderate competitive market for intra-ASEAN countries.

The Market Access Analysis of Cambodia, Myanmar, Brunei and Thailand

Based on the results of the market access analysis for TTP products from Cambodia, Myanmar and Thailand, it shows the application of tariff requirements (duties) based on the

Applied Tariff category with the provisions of MFN and tariffs/duties that apply specifically (preferential tariff) for AANZFTA countries. Cambodia, Myanmar, Brunei and Thailand, provides very low tariffs/duties (0%) for intra-ASEAN countries, but imposes a tariff for AANZFTA countries between 5% - 20%. This means that among Cambodia, Myanmar, Brunei and Thailand, only Thailand has the highest percentage, it means that Thailand is very protective of its textile industry and its market from imports coming from AANZFTA countries. Meanwhile, the regulatory requirements related to the import of goods into the countries, Cambodia and Myanmar have the lowest import regulation (0 rules/regulations and categorized as the lowest. This shows that the country of Cambodia and Myanmar were a very competitive market for intra-ASEAN countries yet it moderate strongly protects its market from imported goods from AANZFTA countries.

The Market Access Analysis of Indonesia, Laos and Philippine

Based on the results of the market access analysis for TTP products from Indonesia, Laos and Philippine, it shows the application of tariff requirements (duties) based on the Applied Tariff category with the provisions of MFN and tariffs/duties that apply specifically (preferential tariff) for AANZFTA countries. Indonesia provides very low tariffs/duties to intra-ASEAN countries, but imposes 25% tariffs for AANZFTA countries. This means that Indonesia is very protective of its textile industry and its market from imports coming from AANZFTA countries. Meanwhile, the regulatory requirements related to the import of goods into the country, Philippine imposed the highest import regulation 158 rules/regulations (ASEAN, 2020) categorized as very high. This shows that the countries open a very competitive market for intra-ASEAN countries yet it strongly protects its market from imported goods from AANZFTA countries.

The Analysis of Comparative Advantage

Based on the results of the analysis in Table 6 above, the RCA value of Cambodia is very excellent, followed by Vietnam with a value of > 1 . This shows that the countries of Cambodia and Vietnam have advantages/competitiveness compared to other countries, especially in focusing on exports of their textile products to intra-ASEAN countries. This advantage/competitiveness is also argued to be due to labor and raw materials, as well as better export regulations. For countries with $RCA < 1$, it is necessary to focus on products with a lower HS category but are needed by ASEAN countries. The comparative advantage can be also triggered by technology as ICT can contribute for competitive advantage (Qosasi et al., 2019).

The Export Growth Analysis

The CMS method is a method used to measure the dynamics of the level of competitiveness or excellence of industry or a country in the international trade. This approach uses the understanding that the export growth rate of a country can be bigger, the same, or smaller than the world's average export growth rate (Tambunan, 2004). According to Prajogo et.al (2016), the export growth with the determinants of the effects of composition, distribution, and competitiveness can have positive and negative values.

The Export Growth of Cambodia and Vietnam

The results of the analysis in Table 7 showed that these countries had a negative export growth, indicated by the CMS value -125,460,007 and -173,572,819 meaning that the composition, distribution, and competitiveness effects were negative. The composition effect parameter with a negative value indicates that the country exports its commodity to countries that have a lower market distribution of the commodity than the growth of the commodity group (Hadi & Mardianto, 2016). Meanwhile, the negative value distribution effect parameter means that this country exports textile products and distributes its market to negative demand growth centers, while the negative competitiveness effect indicates that this country has not succeeded in maintaining market share from its competitors. That part of the market share of this country was taken over by competing countries among ASEAN countries. The negative CMS value of this country turns out to have an RCA value of >1 , meaning that this country has the competitiveness to market its textile products to ASEAN countries even though its export growth is low.

The Export Growth of Thailand, Indonesia, Malaysia, Singapore and Brunei

The results of the analysis showed in Table 5., that these countries had a negative export growth which was indicated by the CMS value -876.328,768, -568,409,207, -76,289,319, -134,836,516, and -1,211,102 meaning that the composition, distribution, and competitiveness effects are negative. The composition effect parameter with a negative value indicates that this country exports its textile products to countries whose market distribution for the commodity is lower than the growth of the commodity, while the distribution effect parameter with a negative value means that this country exports textile products and distributes its market to negative demand growth centers, while the negative competitiveness effect indicates that this country has not succeeded in maintaining market share from its competitors. The negative CMS value of this country also has an RCA value of <1 , meaning that this country also has low

competitiveness in marketing its textile products to other ASEAN countries. Commitment and trust have contribution on performance of export of the country (Ismail et al., 2017).

The Export Growth of Myanmar, Philippine, and Laos

The results of the analysis in Table 7 showed that these countries had a positive export growth indicated by the value of CMS (22,812,462., 4,562,492 and 6,173,309) meaning that the composition, distribution, and competitiveness effects were positive. The composition effect parameter with a negative value indicates that this country exports its textile products to countries whose market distribution for the commodity is lower than the growth of the commodity group, while the distribution effect parameter with a negative value means that this country exports textile products and distributes its market to negative demand growth centers, while the competitiveness effect is positive, showing that this country has managed to maintain market share from its competitors. The positive CMS value of this country turns out to have an RCA value of <1 , meaning that this country also does not have the competitiveness to market its textile products to other ASEAN countries.

CONCLUSION

Based on the results of this study, it can be concluded and suggested as follows;

1. Opportunities for ASEAN countries to enter the intra-ASEAN market specifically for Textile and Textile Products (TTP) are quite high where market access of each country gets convenience from the tariffs/duties set by ASEAN with a value of 0%, compared to other countries that have also made agreements between ASEAN countries and AANZFTA countries. However, the ease in tariffs/duties is not accompanied by the ease in regulatory requirements for importing goods. Each country has market access with its own regulations/rules. This is an opportunity for ASEAN to make better cooperation, especially in terms of a more uniformity in import regulation policy.
2. The competitiveness of ASEAN countries specifically for textile products showed an unsatisfactory development. Of the 10 countries assessed, only 2 countries have RCA values > 1 , namely Cambodia and Vietnam. This is an opportunity for other countries to use their resources to increase competitiveness, especially for more specific textile products.
3. The export growth of ASEAN countries was not entirely good. This, reflected by the value of CMS, where the determinants of commodity, distribution, and competitiveness effects have not shown positive values. Only a few countries have a positive value in total, but partially, only a few countries have positive determinants. No single country

has positive values for all its determinants. This shows that ASEAN countries can improve their growth if they pay attention to these 3 aspects by focusing on more specific textile products.

LIMITATIONS

This study has limitations in terms of the data needed to yield better conclusions. Existing data, especially at the end of 2020, are not counted because the research is conducted in the mid of 2020. A more comprehensive analysis is needed because it will show the relationship between textile products with HS#20 code and the number of exports as well as RCA and CMS analysis so that a better and integrated picture of the competitiveness trends and export growth can be obtained in the future.

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