

The competitiveness of garment exportation of Vietnam: A case study

Nguyen Thi Minh Anh¹, Kieu Thi Minh Thu²

¹Department of Economics and Management, International School, Thai Nguyen University, Thai Nguyen Province, 250000, Vietnam

²Faculty of Mechanical Engineering, Thai Nguyen University of Technology, Thai Nguyen University, Thai Nguyen Province, 250000, Vietnam"

Abstract

This paper aims to address the potential keys to evaluate the competitiveness advantages of Vietnam garment export as a case study. Two approaches applied on both quantitative and qualitative aspects, named the RCA index and Porter's Diamond Model were employed to analyze and evaluate the competitive ability of Vietnam garment export in the recent 5 year duration, from 2013 to 2018. It has been found that, Vietnam has a strong competitiveness advantage with the RCA index ranged from 3.9 to 7.0. The qualitative analysis provided a detailed discussion of Vietnam garment industrial competitiveness advantages in exporting ability. These approaches appeared to be useful to evaluate competitive advantages as well as to propose potential solutions.

Keywords: *competitiveness, garment exportation, Porter's Diamond model, RCA index.*

1. Introduction

Vietnam is becoming a progressively important garment exporting country. The textile and garment sector of Vietnam is one of the country's largest industries and a key contributor to the nation economic growth. In 2015, Vietnam's textile and garment exports increased 9.1 percent year over year (YOY) to total approximately US\$22.81 billion, accounting for 15 percent of the country's gross domestic product (GDP) and 18 percent of its total exports (Chi, 2016). In 2017, Vietnam's textile and garment industry received US\$31 billion from exports and a year-on-year increase of over 10 percent. This growth trend has been suggested to continue in the next few years, to reach US\$50 billion by 2020 (TextileToday, 6/2018). In 2016, Vietnam has been recognized as the third top garment exporters in the world, after China and Bangladesh. Main market for Vietnam textile and garment products are the United State, Europe, Japan and South Korea (Akter, 3/2018).

This study aims to identify how strong the competitiveness of Vietnam garment export is. Two approaches applied on both quantitative and qualitative aspects, named the RCA index and Porter's Diamond Model were employed to analyze and evaluate the competitiveness ability of Vietnam garment export in recent 5 years. The data of Vietnam garment exported to Japan's market was chosen for the analysis as a case study.

2. Literature review

The definitions of national competitiveness usually focus on maintaining and expanding domestic real incomes (UNCTAD, 2009). Also, national competitiveness can be considered as the ability of a nation to produce, distribute and service goods in the international economy in competition with goods and services produced in other countries (R. Scott and C. Lodge, 2009). The term competitive advantage is defined as "superiority gained by an organization when it can provide the same value as its competitors but at a lower price, or can charge higher prices by providing greater value through differentiation. Competitive advantage results from matching core competencies to the opportunities" (Porter, 1990).

Export competitiveness of a nation can be considered as the ability of the country to gain a substantial market share in the international environment. Export competitiveness of a country relies on its domestic firms. The firm can make it done by offering quality products on time at competitive prices, by reacting quickly to changes in demand and skills to successful manage product segregation, by strengthening innovative capacity and effective marketing outlets (Gebrewahid, 2015). In another study (Cheng, 2010), competitive advantages of enterprises could be enhanced by the development of momentous and continuing advances in transportation, production, financial systems, information technology,

regulatory environments and business networks. Several studies have been made to investigate competitiveness at different aspects, such as the competition between state-promoted markets and traditional markets (Purnomo et al., 2018), the effect of sustainable development and the circular economy on competitiveness of businesses (Garcia-Muiña et al., 2018).

In the current globalization process, the export competitiveness became one of the key elements that determine the future growing of any countries, especially for a developing one such as Vietnam. Several studies focusing on the export competitiveness of different countries have been made, such as for Ethiopia (Gebrewahid, 2015), Guangdong China (Cheng, 2010), India (Chaudhary, 2016), Vietnam (Long, 2018, Huong et al., 2017), Cambodia (Yanno, 2007). In the investigation of Gebrewahid (Gebrewahid, 2015), the export barriers and their impact on export competitiveness of the small and medium enterprises in Ethiopian leather footwear manufacturing firms was analyzed. Cheng (2010) applied two research approaches to analyze the industrial competitiveness of garment industry of Guangdong province in China (Cheng, 2010). For the quantitative aspect, the Revealed Comparative Advantage Index (RCA) was used to present the industrial competitiveness of the investigated industry. For the qualitative aspect, the discussion of the evaluated garment industrial competitiveness was done by using the Porter “Diamond Model”. These methods have been shown to be effective and helpful approaches. The export potential of Indian textiles industry in a special period, named Post Multi Fiber Agreement, was revealed in the study of Chaudhary (Chaudhary, 2016). The Revealed Comparative Advantage (RCA) index was also used in this study to determine the development of India’s textiles industry. In the study of Yanno (Yanno, 2007), several imperative factors affecting competitiveness of garment industry in Cambodia was identified, including economic growth from macro environment, investment climate from national environment, as well as economic of scale, capital requirement, product are identical among competitor, full of information from industry environment.

3. Research methodology

3.1 Research approaches

For the quantitative analysis, the Revealed Comparative Advantage Index (RCA) was employed to carry out the industrial competitiveness of Vietnam garment export. According to Porter’s research ideas (Porter, 1990), the RCA index which was firstly proposed by Balassa can be used to reveal the comparative advantage, reflecting the competitiveness of Vietnam’s

export manufacturing industries. The formula used to compute the RCA index is as below:

$$RCA_{ij} = \left(\frac{X_{ij}}{X_i} \right) / \left(\frac{W_j}{W} \right) \quad (1)$$

In Equation (1), *i* represents the country or region and *j* represents the commodity; RCA_{ij} depicts the comparative advantage of the product *j* (garment) in country *I* (Japan). The RCA index takes into account the international market share of different countries and different products, particularly focusing on the export performance of the evaluated country. In this study, RCA represents the comparative advantage index of Vietnamese garment export to Japan market.

Applying to the case of this study, the parameters using in Equation (1) are explained as below.

- X_{ij} represents the value of Vietnam garment exported to Japan (VGEJ);
- X_i is the total value of Vietnam all products exported to Japan (VAEJ);
- W_j is the total value of World garment exported to World (WGEW);
- W is the total value of World all products exported to World (WAEW).

Then the Revealed Comparative Advantage Index for the year *y*, RCA_y can be calculated by rewriting Equation (1) as:

$$RCA_y = \left(\frac{VGEJ_y}{VAEJ_y} \right) / \left(\frac{WGEW_y}{WAEW_y} \right) \quad (2)$$

Typically, a country is said to have comparative advantage when it has the RCA index larger than one unit. In contrast, if the RCA index is smaller than one unit, it means the country has comparative disadvantage in the investigated industry. In case the RCA index ranges from 0.80 to 1.25, the country is considered as having a medium comparative advantage. When the RCA is lower than 0.8, it can be considered as a relative disadvantage.

Noticeably, the increase of total export value would be the result of some different circumstances, whether the rise in overall price level (inflation) or the growth in production quantity or both of them. Because the level of prices in 2013 differed from that in 2017, the results of RCA might not reflect the actual changes in export value over the period of time if it was only calculated by nominal export values (the values affected by inflation). Therefore, in the case of inflation, to be the most accurate comparison, the data should be converted to real export values (the values adjusted by inflation) before computing RCA. According to Mankiw (Mankiw, 2012), CPI (Consumer Price Index), the overall cost of merchandises bought by consumers, will allow comparing “dollar figures” cross-time and make the comparisons become easier and more

advisable. The formula used to compute the value of money from one year into another one is as below.

$$\text{Amount in year } T \text{ dollars} = \text{Amount in year } T_1 \text{ dollar} \times \frac{CPI_{\text{year } T}}{CPI_{\text{year } T_1}} \quad (3)$$

In this study, the base year used to calculate CPI is 2014, announced by General Statistics of Vietnam (Vietnam_GSO, 2016), all export values in the year 2013, 2015, 2016, and 2017 thus will be turned into price level in this base year.

Regarding the qualitative aspect, the discussion of national competitiveness advantages in exporting ability was performed by the Porter’s Research approach “Diamond Model”. In this model, any company at any nation would be affected by both internal factors (Firm strategy, Structure and Rivalry; Factor Conditions; Demand Conditions; Related and Supporting Industries) and external factors (Government and Chance), as shown in Figure 1 (Porter, 1990).

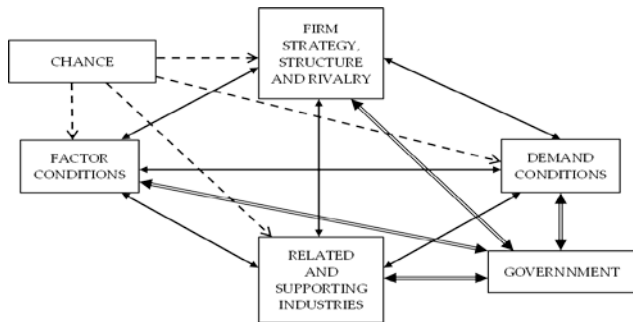


Fig.1 Porter’s Diamond Model of National Competitive Advantage

The elements in Figure 1 are explained as below.

Firm Strategy, Structure and Rivalry:

How the firms in an industry are created, structured and managed in business rival environment is regarded as national competitive advantage. Each country has different goals, strategies, and the ways an industrial firm organized. Firms do not need to be confined only in their home countries, they could rival with their global strategies in international competition. However, the national circumstances in which enterprises run principally define how companies are performed: it influences their strategy and how they structure themselves.

Factor conditions

According to Porter (Porter, 1990), each nation obtains some terms called factors of production (factor conditions), which are necessary inputs of production process (natural resources, capital, human resources and infrastructure available, etc.) to compete in any industry. Porter argues that “A nation’s endowment of factors clearly plays a role

in the competitive advantage of a nation’s firms”, but different countries have different stocks of factors, and for each industry has different the most important factors, so the competitive advantages are dissimilar “across nations and among industries”.

Demand conditions

Demand condition is another determinant of national competitive advantage and it would affect how industries perform within not only a certain nation but in international market. When companies attempt to satisfy demand both of local customers and customers across borders, these striving activities might push the companies to innovate faster, improve product’s quality, have higher competitive advantages and achieve sustainable growth.

Related and Supporting Industries

The presence in the nation of related and supporting industries provides the foundation for one national industry’s advantage in international competitive. “Competitive advantage in some supplier industries confers potential advantages on a nation’s firms in many other industries, because they produce inputs that are widely used and important to innovation or to internationalization.” (Porter, 1990). Enterprises are often relied on their partnerships or their connections in order to create additional value and become more rivaling.

Chance

Chance could affect the benefits of a country, a sector or an industry, etc., so firms should regularly observe the changing in market conditions to make accurate decisions.

Government

Many people have argued that the most strongly influenced to the internationally competitiveness of a country is government policies. However, “Government is indeed an actor in international competition, but rarely does it have the starring role”, in other words, government is only a subset of supporter for industries (Porter, 1990). According to Porter, the role of the government factor is described only as the influence on four aforementioned factors to encourage companies raising their competitiveness at higher level.

3.2 Sources of data

For the purpose of analysis, data and information collected during course of this study is obtained from several secondary sources, including WTO databank, the state Bank of Vietnam databank and Yearbooks from General Department of Vietnam Customs. The study used data of Total Garment Exports from Vietnam for past 05 years (2013 to 2018). The beginning of investigated duration was chosen to be 2013, when the term of the Industry 4.0 started distributing worldwide. The base year used to calculate CPI is 2014 as announced by General Statistics of Vietnam (Vietnam_GSO, 2016).

4. Results and Discussions

4.1 Qualitative analysis

In this section, the factors listed in the Porter's Diamond Model of Nation Competitive Advantage, as depicted in Figure 1, will be analyzed for the case of Vietnam Garment industry.

Firm strategy, structure and rivalry

Firstly, regarding to the enterprise's structure, Vietnamese garment companies are constructed by four different types of ownership (IDS, 2009): State-owned enterprises, Co-operatives, Joint stock companies and Foreign owned enterprises. In the past, almost garment enterprises were state-owned companies, but recently a large number of such companies transformed into Joint stock companies. The progressive production concentrates mostly in two categories, the Joint stock and Limited enterprises and the Foreign-funded enterprises, because these kinds of business have larger advantage in technical and capital investment. According to FPT security JSC (Thuan, 2017), the proportion of Foreign owned enterprises rose to 25% of the total garment companies in Vietnam. Although accounting for only a quarter of all businesses, these enterprises contributed about 60% of total export values in the year 2017. Obviously, this transformation of enterprise's structure makes garment companies have a greater competitive advantage when owing a stronger investment in capital and technology.

Regarding to the firm strategy, almost Vietnamese garment enterprises are performed on low-cost labor and simple stages as CMT (Cut-Make-Trim) to form competitive advantage. Having low-cost labor force means cheap producing costs, which would be attractive factor for foreign partners, to choose Vietnam garment manufacturers in order to get higher benefit. The volume of orders thus becomes greater. Likewise, involving in CMT and producing simple products as T-shirts, jeans, etc. for foreign orders result in a large quantity of exported products, leading to by this time textile and garment industry is one of the industry having highest export value of Vietnam. However, the value-added ratio is still low. Whereas designing is one of the most valuable steps, Vietnamese manufacturing just engages in the last but less value stage, CMT, where almost design and raw materials are supplied follow orders. Therefore, although the export's quantity accounts a huge amount as advantage, our low value-added is also considered as disadvantage.

Finally, compared to the competitors around the world, in 2017, Japanese clothing imported value from China reached US\$ 8.2 billion, took 60.29% the total Japanese garment imports, decreased by 1.1% compared to the previous year; whereas the proportion of Vietnam in this

segment was only 22.79%; from Bangladesh was about 15%. Due to low engagement level and unchanged technology, the differentiation in product is small, leading to the aggressive competition exists among peers. Nevertheless, other positive elements lead Vietnam to have a certain advantage at Japan market.

Demand conditions

Talking about fashion realm in Japan, this nation is a huge, potential market. Despite small geographical area, purchasing power of Japanese is surprisingly high and the demand for garments is growing over years. Due to the high capita income per person, Japanese customers no longer prefer regular and economy clothing, they have shifted their interest towards high-end apparel products (Fibre2Fashion.com, 2015). Therefore, owing to exceedingly competitive by non-tariff barriers to import clothing, a foreign apparel company/manufacturer/designer must be fashionable, great details in dedicate design, unique and definitely extreme high quality to penetrate this market. However, beside meeting demand of domestic consumers, with the increasingly rising numbers of tourists, Japan's fashion enterprises are turning to these foreign customers. But to capitalize on the increased demand from tourists, Japanese garment industry has trouble due to labor shortage (Hara and Takahashi, 2018). Consequently, Japanese government as well as garment companies must order apparel products from abroad. Competitive advantage in abundant labor and low cost helps Vietnam usually meet the demand requirements of this market. However, small added-values make Vietnamese competitiveness not really high.

Factor conditions

According to Textile & Garments Report (Thuan, 2017), the average production time in Vietnam is 60-90 days, lower than China and India (40-70 days). The labor cost in Vietnam, such as worker's wage, is only two-thirds compared to that in Malaysia. In addition, productivity in garment industry of Vietnam is higher than that in Cambodia and Bangladeshi factories. Therefore, Vietnam is a good choice for fashion manufacturers and retailers in the world due to short time producing and low price. However, BMI report on labor market in Vietnam Q3/2017 shows that Vietnam, in the rank 14th of 18 countries risked of changing labor costs. As a result, although Vietnam has had a very strong competitive advantage in abundant and low-cost labor, due to the possible increase in the cost of production, Vietnam garment industry is gradually becoming less competitive in compared with other garment producing countries like Cambodia, Myanmar and facing the shift to such countries.

Vietnam's technological level advantage is not obvious. The first reason is that, because most of Vietnam enterprises are small and medium size (SMEs), they have

not sufficient capital to invest in machinery and equipment, which then helps to improve productivity. Secondly, the problem is that businesses are often afraid of changing the way how they work. These companies depend mainly on production equipments and raw materials purchasing to maintain the simple processing operations, which will make such companies regularly lose their competitiveness in the Modern Technology era.

Relates and supporting industries

Vietnam also has sizable competitiveness in textile and garment industries, which could supply full range from manufacturing yarn and fabric to cutting and sewing apparels. But while two thirds of yarn output is exported annually, the garment industry has to rely on 70% imported materials (fabric) in manufacturing (Thuan, 2017). Moreover, according to data from International Development Systems, (IDS, 2009), only 20% of net price belongs to Vietnamese producers and 80% remaining is in the hand of buyers and intermediaries who provided materials, accessories and design. As a result, the issue of output (yarn) surplus in one industry and the problem of shortages input (fabric) in related industry mean that Vietnam has not utilized fully advantages in combining and exploiting sectors in the value chain.

Chance

China is not only a competitor but also an importer in this garment industry of Vietnam. In order to evaluate any chances in Vietnam garment export, at first the export performance of China is briefly discussed as a reference. China is known as the biggest exporter in garment industry over the world. Recently, Chinese government has the tendency to develop the textile and garment industry in two different directions: increase the proportion of yarn manufacturing and participate in the higher value added as design, product development and distribution. A strategy called “Made in China 2015”, with the aim to shift some industries (which consume a lot of energy and cause environment pollution, out of their country), had transferred garment manufacturing to some neighbor countries. With the abundant and low-cost labor force’s advantage, leading to timely and cost effectively meet the order requirements, Vietnam has become an attractive partner for international fashion brands. This opportunity helps Vietnam to expand markets for garment export industry.

Government

According to Textile & Garments Report 2017, Vietnamese Government has the planning to develop the textile and garment industry by 2030. In such plan,

garment industry is one of the six priority areas of industrial development of Vietnam. By focusing on improvement of supporting industries, Vietnam could reduce importing materials from the world, thus garment enterprises would have a favorable business environment to develop in the future.

According to an online magazine named TextileToday (Aker, 3/2018), the chances to enhance value-adding capabilities, develop own brands, become to export garments including design in two main forms as material autonomy outsourcing FOB (Free on board) and original design manufacturers (ODMs), rather than function only as CMT companies are also given by the Government. In fact, such policy has been recognized and implemented by the Vietnamese government in the past. Since 2014 to 2017, garment export value was increased (from \$2,620 million to \$3,110 million), but more encouraging than that, FOB and ODM rates have grown(13% up to 30% and 2% up to 5%, respectively), reducing the CMT rate (85% to only 65%), improving the added value of Vietnamese garment products. Thus, as can be seen that, this transform policy is essential and should be enhanced to rise value of Vietnam’s businesses as well as their competitive position in international arena.

Another important factor is the Partnership Agreement between Vietnam and Japan. The Japan-Vietnam Economic Partnership Agreement (JVEPA) and the ASEAN-Japan Comprehensive Economic Partnership Agreement (AJCEP) were both signed in the year 2008 to boost business among Japan and other countries, including Vietnam. According to VJEP, the tariff of Vietnam’s textile and garment exports to Japan has reduce from seven percent (7%) to zero percent (0%) tax. This dwindling benefits Vietnam products to have cheaper prices when importing into Japan, and contributes to boost competitive advantage of Vietnamese garment products in such market. However, Vietnamese enterprises have not yet effectively applied offers by these two agreements.

4.2 Quantitative analysis

As mentioned above, quantitative analysis in this study is implemented by mean of the RCA index. The data of Vietnam garment exports and World garment exports are used to calculate the RCA index.

At first, the export values of all commodities from Vietnam to Japan in the 5-year-period, from 2013 to 2017, are collected and presented in Table 1.

Table 1: Values of all Commodities Export from Vietnam to Japan (VAEJ) (US\$ in millions)

No.	Commodities	2013	2014	2015	2016	2017
1	Garments	2380	2620	2785	2899	3110
2	Other means of transportation, parts and accessories thereof	1859	2065	1942	1911	2177

3	Machine, equipment, tools and instruments	1213	1431	1409	1563	1716
4	Fishery products	1111	1195	1034	1098	1303
5	Wood and wooden products	824	952	1042	980	1023
6	Foot-wears	382	519	598	675	751
7	Computers, electronic products, spare-parts and components thereof	314	370	523	654	713
8	Crude oil	2077	1502	595	171	358
9	Plastic products	425	473	466	515	566
10	Telephones, mobile phones and parts thereof	37	46	48	416	791
11	Handbags, purses, suit-cases, headgear and umbrellas	227	284	318	356	354
12	Iron and steel products	186	242	257	290	343
13	Chemicals	238	295	257	253	284
14	Other base metals and other base metal products	98	136	204	228	210
15	Insulated wires and cables	189	187	183	223	308
16	Coffee	168	169	170	203	210
17	Other	1922	2207	2301	2236	2642
	Total	13650	14693	14132	14671	16859

It can be observed from Table 1, there has been a noticeable increase for the investigated duration in total commodity exports from Vietnam to Japan. The total value raised from US\$13,650 million in 2013 to US\$16,859 million in 2017. Nevertheless, the year 2015 witnessed a reduction in Vietnamese total export value as several reasons. The first cause partly would be the impact of sharply falling in oil price, general price of almost commodities tended to fall. In addition, in this year, the inflation rate in Japan reduced from 2.4% January to only 0.3% in November (Vietnam National Institute for Finance, 2016), resulting in decrease of price level. Therefore, although export volume to Japan did not significantly change, the value from these international transactions was lower than the former years. Secondly, unproductive machinery systems lead to production is not really efficient in compared to other competitors, especially the new industrial nations who have up-to-date producing technology. At the same time, potential changing labor cost makes a country lose its competitiveness in the global market. This is why in 2015 Vietnam' export value was dropped. However, despite the decrease in the total value exported to Japan, Vietnamese garment export value in this year has continuously grown up as demonstrated in Figure 2.

As can be seen in Figure 2(a), the garment exports of Vietnam to Japan Market were growing continuously during the selected period of time. An upward trend of the garment export values clearly appeared when applying the improvement of Technology revolution in the industry in 2013. It went up by 30.67% from \$2,380 million in 2013 to \$3,110 million in 2017. From Figure 2(b), the proportion of garment exports fluctuated over the investigated period. In 2013, it took 17.43% of the total of Vietnamese exports to Japan. In 2015, it surged significantly by 2 percent to more than 19%, but in 2017

this amount fell down to 18.45%. However, in cooperation with other commodities exported to Japan, garment exports also accounted for nearly one-fifths total export value, became one of the leading export industries of Vietnam.

Looking at global general exportation and apparel exports values, the economic around the world in 2015 witnessed many changes that could affect any import-export activities. A remarkable issue should be noted, as China is the second largest economy, a shock in Chinese stock market in August 2015 made the Yuan depreciate, leading to an unstable global growth. A slow-down tendency also occurred in Japan: the economy had faced risks and even uncertain resumptons. Caused by the decline in demand in such situation, international trading was restricted, leading to the decrease in export value not only in Japan but all over the world.

In reality, all of the data shown above are nominal data, which have not adjusted for inflation. A further step will be taken to compute real variables. Based on the price level index (CPI) of Vietnam (Vietnam_Bank_State) and the calculation of money value in different times, choosing the year 2014 as the base year, the real Vietnamese export value will be represented in Table 2.

Table 2: Real value of VGEJ and VAEJ after adjusted for CPI (US\$ in million)

Year	CPI	VGEJ (nominal)	VGEJ (real)	VAEJ (nominal)	VAEJ (real)
2013	96.07	2380	2477	13650	14208
2014	100	2620	2620	14693	14693
2015	100.63	2785	2768	14132	14044
2016	103.29	2899	2807	14671	14204
2017	106.82	3110	2911	16859	15783

In Table 2, it can be observed that afterward correcting the diverse in price level in different years, the real data

show a number bigger than nominal data in 2013 while smaller numbers appeared in other years after the base year (2014). However, they display the same trend as the trend of nominal values.

In order to evaluate the competitiveness advantage of Vietnam Garment Export, RCA index values for each year in the investigated period were computed by Equation (3) and depicted in tables below. At first, the World Garment Export to World (WGEW) and World All Commodity Export to World (WAEW) during the period from 2013 to 2017 are shown in Table 3. Next, the RCA index values are calculated in nominal values (Table 4) and in real values (Table 5).

Year	2013	2014	2015	2016	2017
WGEW (nominal)	454.9	483.0	465.5	773.2	687.9
WGEW (real)	473.5	483.0	462.6	748.6	643.0
WAEW (nominal)	18368.0	18494.0	15985.0	15464.0	17198.0
WAEW (real)	19119.4	18494.0	15884.9	14971.4	16070.0

The results obtained for VAEJ and the RCA index of Vietnam Garment export each year are illustrated in Figure 3.

Table 3: Values of World Garment Export to World (WGEW) and World All Commodity Export to World (WAEW) (US\$ in billion)

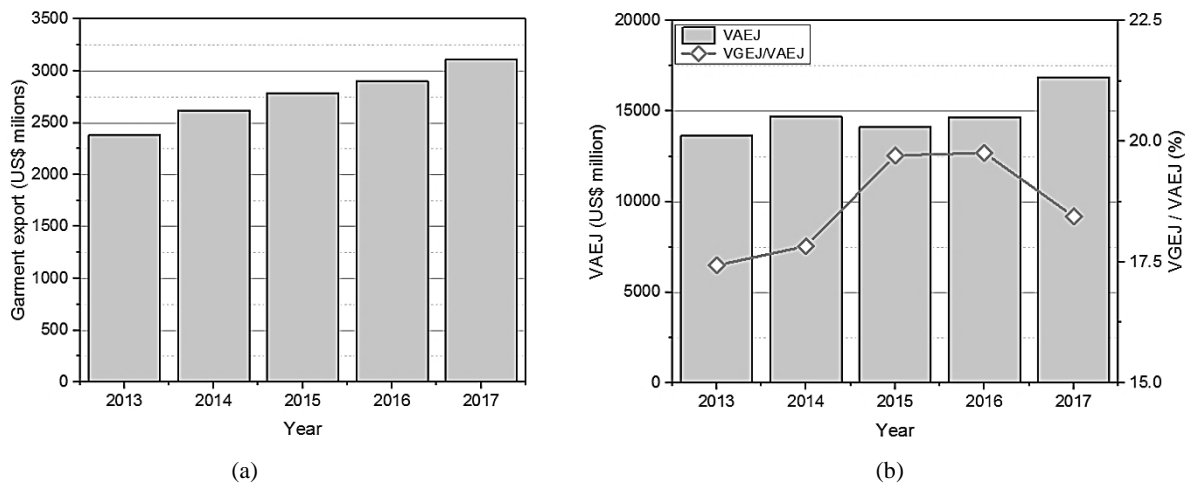


Fig. 2 (a) Annual Vietnam Garment Export to Japan (VGEJ) in period 2013-2017; (b) Proportion of VGEJ (Line) to VAEJ (Patten columns)

Table 4. RCA index values for the investigated years by nominal data

Year	VGEJ	VAEJ	WGEW	WAEW	VGEJ/VAEJ	WGEW/WAEW	RCA
2013	2380	13650	454900	18368000	0.1744	0.0248	7.0403
2014	2620	14693	483000	18494000	0.1783	0.0261	6.8277
2015	2785	14132	465500	15985000	0.1971	0.0291	6.7673
2016	2899	14671	773200	15464000	0.1976	0.0500	3.9520
2017	3110	16859	687920	17198000	0.1845	0.0400	4.6118

Table 5. RCA index values for the investigated years by real data

Year	VGEJ	VAEJ	WGEW	WAEW	VGEJ/VAEJ	WGEW/WAEW	RCA
2013	2477	14208	473509	19119392	0.1744	0.0248	7.0403
2014	2620	14693	483000	18494000	0.1783	0.0261	6.8277
2015	2768	14044	462586	15884925	0.1971	0.0291	6.7673
2016	2807	14204	748572	14971440	0.1976	0.0500	3.9520
2017	2911	15783	643999	16099981	0.1845	0.0400	4.6118

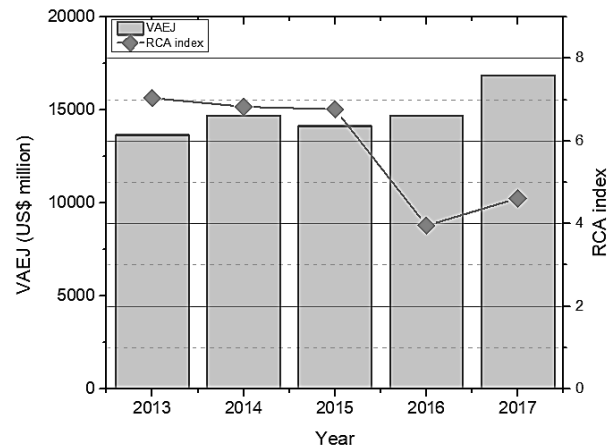


Fig. 3 Total export to Japan (Solid column) and RCA index (Line) of Vietnam Garment industry

The following significant remarks can be taken from the analyzed results:

- During the investigated period from 2013 to 2017, the value of RCA index remains in the range between 7.04 and 3.95. As aforementioned, according to the standard of Japan External Trade Organization (JERTO), when a RCA is greater than 2.50, the evaluated industry has a strong comparative advantage. In case the RCA ranges from 0.80 to 1.25, the industry has a medium comparative advantage and when the RCA is lower than 0.8, it can be considered as a relative disadvantage. Therefore, with the RCA index much larger than 2.5, Vietnam garment export industry performs at high levels and sustains strong comparative advantage compared to the total garment exports of the world during those 5 years.

- In spite of a growth in Vietnamese garment export to Japan, the RCA index fell dramatically from 7.04 by nearly 50% during 4-year-period to 2016. This indicates that Vietnam comparative competitiveness advantage was still powerful but on a downward trend. The performances of foreign competitors appeared to be better than Vietnam during this period, which would be the result of increase in labor cost and slow average production time of Vietnam garment industry. In addition, the latter problem can be also identified mainly as a result of lacking of cooperation in supply chain and backward producing machines. This problem was already pointed out by qualitative analysis, as shown in section 3.1 above. However, after a technological renovation in garment industry in 2016, RCA started going up to 4.61 in 2017, which demonstrates that the Vietnam garment outputs have strong international competitiveness and ability to maintain development again.

5. Conclusions

Applying the RCA index method and Porter’s Diamond model, this paper study analyzed and evaluated the

competitiveness advantages of Vietnam export in recent 5 years with the following noticeable remarks:

- During the investigated period, the value of RCA index of Vietnam garment export remained in the range between 7.04 and 3.95. Consequently, Vietnam garment export industry performed at high levels and sustains strong comparative advantage compared to the total garment exports of the world during those 5 years.

- The performances of foreign competitors appeared to be better than Vietnam during that period. However, after a technological renovation in garment industry in 2016, RCA started going up to 4.61 in 2017, which demonstrates that the Vietnam garment outputs have strong international competitiveness and ability to maintain development again.

- Vietnamese garment companies are constructed by four different types of ownership State-owned enterprises, Co-operatives, Joint stock companies and Foreign owned enterprises. Since Vietnamese garment enterprises engage in CMT stage, where almost design and raw materials are supplied follow orders, outputs are usually met the demand requirements in this market. However, low production quantity and small added-values make Vietnamese competitiveness not really high.

- Due to the increase in the cost of production, Vietnam garment industry is facing the shift to other countries. Improving production process would enhance the competitiveness in quantity of products produced, avoiding lose competition due to backwardness technology.

- Vietnamese government has already focused heavily on investing in the development of support industries.

- With the abundant and low-cost labor force’s advantage, leading to timely and cost effectively meet the order requirements, Vietnam has become an attractive partner for international fashion brands.

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