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Footwear Export Competitiveness of Indonesia and Vietnam

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Abstract

This research investigates the primary constraint causing the low competitiveness of Indonesian footwear exports compared to Vietnam with new information from a number of the latest studies. This study uses Reveal Comparative Advantage (RCA) and the Trade Specialization Index (TSI). Differences in culture, economic structure, and firm rivalry all contribute to Indonesia's power competitiveness. This research adds a competitive advantage to study the factors that hamper the low competitiveness of Indonesian footwear against Vietnam. The results show that Indonesia's comparative advantage is more moderate than Vietnam, with an average RCA of 4, while Vietnam is 9. The average value of TSI is Indonesia close to 1 and Vietnam 1. The primary constraints are workers' wages higher than Vietnam, and business services such as R & D have not utilized. The development of the footwear industry policy must identify from upstream to downstream. The affirmative system made must be used to overcome short-medium term problems.

Keywords: international trade, competitive products, footwear exports, exports

Abstrak

Penelitian ini bertujuan untuk meninjau faktor utama penyebab rendahnya daya saing ekspor alas kaki Indonesia dibanding Vietnam dengan menarik informasi dari sejumlah studi terbaru. Penelitian ini menggunakan pendekatan Reveal Comparative Advantage (RCA) dan Indeks Spesialisasi Perdagangan (ISP). Perbedaan dalam budaya, struktur ekonomi, dan persaingan perusahaan, semuanya turut berkontribusi menentukan keberhasilan daya saing Indonesia. Jadi, penelitian ini menambahkan pendekatan daya saing kompetitif untuk mengetahui faktor yang menjadi hambatan rendahnya daya saing alas kaki Indonesia terhadap Vietnam. Hasil penelitian menunjukkan keunggulan komparatif Indonesia lebih rendah dari Vienam, dengan rata-rata RCA sebesar 4, sementara Vietnam 9. Untuk ISP, nilai rata-rata Indonesia mendekati 1, dan Vietnam 1. Penyebab utama karena upah pekerja yang lebih tinggi dari Vietnam dan layanan bisnis seperti R&D belum dimanfaatkan secara maksimal. Pengembangan kebijakan industri alas kaki harus diidentifikasi dari hulu ke hilir secara komprehensif dan berkelanjutan. Kebijakan afirmatif yang dibuat harus benar-benar digunakan untuk mengatasi masalah jangka pendek-menengah.

Kata Kunci: perdagangan internasional, daya saing produk, ekspor alas kaki, ekspor

JEL Classification: F13, F12, F17

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Introduction

In most Asian countries, economic growth and development depend on export activities (Tsen, 2006). Bernard & Jensen (1999) argues that exports have a positive relationship with economic growth and contribute to increasing a country's productivity. Footwear is one of the commodities that have contributed significantly to Indonesia's economic growth. With a production of 1.41 billion pairs of shoes in 2018, Indonesia provides around 4.6% of the total world shoe production (Indonesia Ministry of Industry, 2019).

However, referring to data from the Indonesia Ministry of Trade (2020), Indonesia's export commodities are still dominated by mineral exports (HS 27), which reached 14 percent or US$ 22.2 billion. The second position is occupied by plantation commodities such as animal or vegetable oil by 11.36 percent, Followed by commodity commodities and electrical equipment and parts by 5.51 percent, Then followed by commodities other than railroad/tram and its components by 5.27 percent. These products tend to increase in value and quantity of exports except mineral and vegetable/vegetable oil commodities, which have decreased in 2019 but still dominate.

Meanwhile, footwear products (HS 64) always experience an increase in the national export share and ranks tenth of the national export commodity. For 2019, the contribution of footwear to domestic exports will be 2.85 percent. The footwear export industry has a significant role in bringing in foreign exchange. The industry is labor-intensive and plays a vital role in employment. The footwear industry can absorb an additional workforce of 24 people from 795 thousand people in 2017 to 819 thousand people in 2018 (Indonesia Ministry of Industry, 2019).

The United States is the leading market destination for Indonesia. The exports of Indonesian footwear products to the United States in the last five years (2014-2018) increased compared to its footwear exports to the rest of the world (UN Comtrade, 2019). Among the five biggest footwear exporters in the world, only Vietnam in ASEAN, whose footwear exports have exceeded Indonesia in the last five years? As a result, Indonesia is the fifth largest footwear exporter globally and accounts for 2.85 percent of global exports.

Exports become one of the strengths of the regional economy. The role of shipping is vital to support the economic growth of a region. The success of an area in international trade can also saw from the competitiveness of its export products. Export competitiveness becomes the driving factor of region export performance. Competitiveness has become the key to a region to succeed in its participation in globalization and world free trade (Bustami & Hidayat, 2013). Not surprisingly, every country competes to increase its superior product exports to continue competing in the international market.

Thus, to increase Indonesia's competitiveness against Vietnam, the first step taken is to increase the number of its exports. Furthermore, several studies reveal that a country's competitiveness can saw from the size of its exports. Altomonte et al. (2012) show that dynamic exports can measure a country's competitiveness. Whereas Porter (1990) explains, entrepreneurs can take advantage of certain regions' comparative advantage to gain competitiveness. That is, dynamic exports are the right size for competitiveness.

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There are have various problems faced in export footwear, such as low-cost labor. Indonesia and Vietnam are both known as low-wage countries. However, Vietnam's wages are far lower than in Indonesia. It has attracted many investors to relocate their factories to Vietnam. Schmitz (2006) reveals that Vietnam emerged as a significant shoe exporter to Europe and the United States, perhaps because Taiwanese and Koreans helped build production capabilities and regulate the supply of all inputs needed in low-wage regions, such as Vietnam, China and India (Hoang & Hong, 2016). As a result, FDI in Vietnam has increased in recent years. In 2003, this share was 49% (Anh et al., 2006. cited by Hoang & Hong, 2016), but in 2015, this share increased by up to 80% (Hoang & Hong, 2016).

Labor costs in Vietnam are still lower compared to its other neighbors, Thailand, and China. Vietnamese factory workers only get two-thirds of what their colleagues bring home in China. Thus, many companies prefer to move production to lower-cost regions such as Vietnam. The 2019 Total Workforce Index (TWI) report revealed the average monthly salary of Vietnamese workers at only US $ 242, the seventh of the regional average of US $ 1802. If footwear is a 'strategic' sector, does Indonesia, which has higher wages for workers than Vietnam, imply slower long-term export growth? An indicator of comparative advantage and competitive advantage in footwear introduced to check whether competitiveness in this industry boosts growth.

To increase competitiveness, factors that must consider are not only those related to their comparative advantages (size of exports) and their competitive advantages. Reis & Farole (2012) stated that the obstacles major developing countries to compete in international trade generally behind the border, namely internal factors in a country such as logistics, customs, financing, conditions of production factors, and lack competition (Ridhwan et al. 2015). Meanwhile, Chan et al. (2004) state that competitive advantage positively influences company performance. Furthermore, the firm's strategy to gain a competitive advantage of footwear are manipulating the various resources needed and control those resources directly because these resources are the key to producing competitive advantage (Reed & DeFillipi, 1990. cited by Rijamampianina, 2003).

This study will try to evaluate the gap by investigating the competitive and comparative advantages of Indonesia and Vietnam simultaneously in the footwear industry. Previous studies have only examined on one side, either comparative advantage (Amador & Cabral, 2008; Adulyanukosol & Silpcharu, 2020; Maqbool et al. (2018) or competitive advantage (Vuong et al. 2019; Zhang, 2018; Phan et al., 2016; Hoang & Hong, 2016; Batista et al., 2016). Thus, we add to the literature by examining not only based on empirical results (comparative advantage) but also a competitive advantage. By analyzing the competitiveness of the footwear industry from two sides (comparative and competitive), we will get a complete picture of the advantages of the footwear industry in both countries. Thus, this research aims is to review the primary constraints causing the low competitiveness of Indonesian footwear exports compared to Vietnam by drawing information from several recent studies. To understand the competitiveness issues that Indonesia will continue to face in the medium term, we offer a detailed analysis of Indonesian and Vietnamese footwear's comparative and competitive advantages.

Methods

This research investigates the factors that cause the competitiveness of the Indonesian footwear industry is lower than in Vietnam. We follow the methodology developed by Faustino (2008) to show whether Indonesia has comparative advantages or even relative disadvantages in the footwear industry. Meanwhile, to find out how much comparative advantage it has, we will use the methodology developed by Hinloopen (2001), which explicitly explains the concept of reveal comparative advantage (RCA), which was first introduced by Balassa (1965). According to him, there are four classifications used to determine the size of a country's comparative competitiveness, as explained in Table 1.

Tabel 1. RCA Classification

Classification	Explanation
0<RCA ≤ 1	No comparative advantage
1<RCA ≤ 2	Week comparative advantage
2<RCA ≤ 4	Moderate comparative advantage
RCA >4	Strong comparative advantage

Source: Abtew (2017)

To present the RCA index results, we use to export data from the United Nations Commodity Trade Statistics Division (UN COMTRADE) website, World Integrated Trade Solution (WITS). Mathematically the RCA Balasssa can be calculated with the following formula:

$$RCA = \frac{\left({}^{X_{ij}}/_{X_{it}}\right)}{\left({}^{W_j}/_{W_i}\right)}$$

Where:

Xij is the value of commodity exports j from country i

Xit is the total export value (product j) of country i

Wj is the export value of commodity j in the world.

Wt is the total world export value.

After knowing the strengths of Indonesia and Vietnam's comparative advantages, we will detail the RCA determinants. To find out, we follow the approach developed by Lundmark (2010). According to him, RCA determines the product, production efficiency, geographical characteristics, and government policy. Furthermore, to further assure the strength of the comparative advantages of the two countries, afterward, we will use the trade specialization approach from Amable (2000). This approach measures the relationship between comparative advantage and trade specialization, positive or negative on economic growth. Furthermore, the method of Hotopp et al. (2005) explains that, with trade specialization, export productivity will increase. As a result, the comparative advantage of footwear products increases.

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Further, comparative advantage measures are a determinant of trade patterns, which leads to international trade specialization to be determined by several supply and demand factors (Abtew, 2017). According to Tambunan (2003), the comparative advantage of a country can measure using the TSI method. The formula of TSI:

$$TSI = \frac{(X_{ia} - M_{ia})}{(X_{ia} + M_{ia})}$$

Where:

X_{ia} is the value of commodity exports in country j

M*ia* is the value of imported commodities i in country j

TSI identifies the growth rate of a commodity: *First*, TSI -1.00 to - 0.50 means the product has low competitiveness or an importing country, in an introduction stage. *Second*, TSI -0.51 to 0.00 shows the industry has very low competitiveness, or the level of production is not high enough to reach its economies of scale, or the country is in import substitution stage. *Third*, TSIs 0.01 to 0.80 means the country has strong competitiveness and is expanding exports or in a growth stage. *Fourth*, TSI 0.81 to 1.00 means the commodity is in the maturation stage in world trade or already has powerful competitiveness. *Fifth,* TSIs 0 to 1.00, means the industry of country B cannot compete with country A in their domestic markets, and local production is less than domestic demand.

Moreover, the principle of RCA is also mostly designed and sustained through a highly localized process. Differences in national values, culture, economic structures, institutions, and histories all contribute to competitiveness success (Abtew, 2017), which are those factors that are a competitive advantage. Further, competitive advantage was first introduced by Porter (1990) as a tool of analysis in increasing competitiveness. Sachitra & Chong (2016) described the four main attributes used in Diamond National Porter to determine a country's competitive advantage: condition factors, demand conditions, related and supporting industries, and firm's strategy structure rivalry. From the four attributes, the condition factor is considered the most appropriate in determining a country's competitive advantage. For this reason, this research will also investigate in detail these factors. It hope that the full investigation will not only based on empirical values from the results of RCA or TSI scores but also on the research of factors that considered to contribute to the success of competitiveness (Porter Diamond Model), can help provide recommendations for making appropriate policies in the face of obstacles major in the footwear industry.

Results and Discussion

This section will reveal comparative (market share) & competitive advantages (strategy, structure, and firm rivalry) between Indonesia and Vietnam. Thus, the competitiveness between the two countries will be known. Then, the next step is to provide relevant recommendations for improving the productivity improvement of footwear exports.

The measurement of comparative advantage uses RCA. Comparative advantage is revealed if RCA > 1. Table 2 shows that Vietnamese RCA has been maintained in the top 5 and become the highest RCA among ASEAN footwear exporters. However, Vietnam's RCA

shows a slow downward trend in 2014 of 11.8 and down to 9.62 in 2017, which shows that Vietnam's comparative was obvious and competitive at an early stage, but not optimistically in the next few years.

Table 2. RCA of ASEAN Countries

Country	2014	2015	2016	2017	2018
Indonesia	3.94	4.39	4.75	4.61	4.61
Malaysia	0.08	0.07	0.07	0.07	0.07
Singapore	0.04	0.04	0.04	0.06	0.05
Thailand	0.51	0.44	0.38	0.39	0.39
Vietnam	11.8	10.2	9.81	9.62	

Meanwhile, Indonesia, even in second place, showed a steady and upward trend. Indonesian RCA increases every year (2014-2016) and stagnant in 2017 and 2018. It implies that Indonesia's comparative advantage is getting stronger while Vietnam is weakening. If Indonesia wants to surpass Vietnam in comparative advantage, then Indonesia must increase its number of exports. Furthermore, several studies reveal that a country's competitiveness can saw from the size of its exports. Altomonte et al. (2012) showed that dynamic exports could saw to measure a country's competitiveness. In contrast, Porter (1990) explains that entrepreneurs can take advantage of a particular region's comparative advantage to gain competitiveness. That is, dynamic exports are the right size for competitiveness. However, the way to use this depends on other Indonesia capabilities discussed in the following content.

The first step taken by Indonesia to increase the number of footwear exports is to identify well the specialization that each type of footwear product has. To measure it, use the Trade Specialization Index (TSI). Some research shows the impact of product specialization. Hotopp et al. (2005) examine how exporters' performance is associated with by-product specialization or diversification and shows that companies that can develop more diverse products have better export productivity than those who do not. Meanwhile, Companies tend to focus on specific product ranges rather than various items that allow for economies of scale to be exploited (Baldwin & Gu, 2004; Vuong et al. 2019). No different, Amable (2000) shows inter-industry specialization and comparative advantage in electronics has a positive effect on productivity growth. Besides, education seems to act complementary to trade specialization and strengthen the positive impact of electronics.

Table 3. TSI for HS 6404 of ASEAN Member Countries

Country	2014	2015	2016	2017	2018
Vietnam	1	0.99	0.99	0.98	0.99
Indonesia	0.91	0.92	1	0.84	0.78
Cambodia	0.94	0.96	0.98	0.98	0.98
Myanmar	0.09	0.25	0.69	0.89	0.98
Thailand		0.21	0.06	-0.04	-0.4
Singapore		-0.29	-0.23	-0.59	-0.23

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Table 3 shows calculation of TSI of footwear products (HS 6404) among ASEAN member countries, that Vietnam, Cambodia, and Indonesia have the highest TSI compared to others. The three countries have TSI values of 1 and almost during the last five years (2014-2018). It means that the product has extreme competitiveness. Meanwhile, TSI calculation results with HS 6403 (footwear products with outer soles made of rubber, plastic, leather or composition leather and leather uppers (not including orthopedic footwear, skating shoes with ice or roller skates attached, and pedestal toy legs)) shows that Vietnam, Cambodia, and Indonesia are still the three countries that dominate the highest value for this HS 6403 product, with a value of 1 and almost 1 (see Table 4).

The three countries' TSI values fluctuate, the top three led by Vietnam and followed by Cambodia and Indonesia. In 2015, Vietnam's TSI went down to 0.98, and stagnant until 2018. Cambodia's TSI fluctuated, from 0.98 in 2014, then stagnated at 0.99 for two years and dropped to 0.98 in 2017. The three countries' TSI is positive (above 0 to 1) for HS 6403 products. They have strong competitiveness and have the potential to be exporting the product.

Table 4. TSI of HS 6403 of ASEAN Member Countries

Country	2014	2015	2016	2017	2018
Vietnam	1	0.98	0.98	0.98	0.98
Indonesia	0.93	0.93	1	0.93	0.92
Cambodia	0.98	0.99	0.99	0.98	0.98
Myanmar	0.53	0.58	0.7	0.67	0.78
Thailand	NA	0.48	0.48	0.52	0.41
Singapore	NA	-0.38	-0.33	-0.94	-0.36

Vietnam, Indonesia, and Cambodia also as significant producers of HS 6402 products (see Table 5). HS 6402 is a footwear product with an outer sole and rubber or plastic top (excluding waterproof footwear from heading 6401, orthopedic footwear, skating shoes with ice or roller skates attached, and toy footwear). For this product, Indonesia ranks third, and Cambodia ranks second. Indonesia's TSI in 2016 was 0, while Vietnam's 0.98, and Cambodia's 0.42. The data for this product is somewhat surprising. In 2014 Cambodia had a negative TSI (-0.75), which was much lower than Indonesia, but in just two years, Cambodia moved from an importer to an exporting country.

Table 5. TSI for HS 6402 in ASEAN

Country	2014	2015	2016	2017	2018
Vietnam	1	0.98	0.98	0.98	0.98
Indonesia	0.74	0.74	0	0.63	0.56
Cambodia	-0.75	0.62	0.42	0.95	0.94
Myanmar	0.5	0.53	0.86	0.88	0.86
Thailand		0.34	0.24	0.28	0.18
Singapore		-0.15	-0.1	-0.2	-0.19

Overall, the TSI for footwear products HS 6402, HS 6403, and HS 6404 are always above 0.5. Indonesia has a comparative advantage to be an exporter of these footwear products. Indonesia's specialization in footwear exports indicates that Indonesia has the capital to compete with footwear products from Vietnam because Indonesia has a comparative advantage as much as Vietnam.

However, efforts to increase Indonesia's comparative advantage are not only influenced by its export productivity. However, it also influenced by Vietnam's competitive advantage. To analyze the competitive advantage between Indonesia and Vietnam, it will use the national diamond porter method. This method is considered suitable, which is more descriptive. The main attributes used to measure competitive advantages are strategy, structure, and firm rivalry.

Several studies have shown that there are factors that can affect an increase in competitiveness. Ridhwan et al. (2015) argued that Indonesia still has problems in four factors: labor (skill set), logistics, policy, and domestic institutions, which should be a concern of the government for increasing Indonesia's footwear export competitiveness. Furthermore, Cho & Moon (2013) argued that Indonesia's efforts to increase competitiveness are at a developing stage: physical factors (business environment) and human factors. Other vital factors that have contributed to efforts to increase competitive advantages in the condition factor in the footwear industry are innovation and information technology. Adulyanukosol & Silpcharu (2020) revealed that four factors influence the competitive advantage of footwear design in the Thai footwear industry. Namely, design, market analysis, innovation, and information technology.

Furthermore, referring to the results of a literature study, the primary constraint related to Indonesia's condition factor is the labor costs in Vietnam lower than Indonesia. Thus, it will be easier for Vietnam to attract companies to place their production in Vietnam. In 2016, there were more than 700 footwear companies in Vietnam, while in Indonesia only 472. This result shows in Table 6.

Table 6. Number of Footwear Companies in Vietnam and Indonesia in 2016

Indicator	Indonesia	Vietnam
Number of firms	472	More 700
Number of workers	795,490	1,5 millions

Source: Indonesian Footwear Association (APRISINDO) (2017); Vietnam Industry (2020).

The minimum wage for Vietnamese workers is at the lowest level of 48-69 cents/hour. At the same time, that number for Mexican workers is 56-73 cents/hour, Peru: 1.17 USD/hour, Chile: 1.86 USD/hour. In line with these, Figure 1 shows that manufacturing labor cost per hour for Vietnam is lowest that China and Mexico. As a result, many old suppliers have turned into liaison agents for new suppliers in low-wage countries like Vietnam (Schmitz, 2006). With low wages, which is the main reason companies were there in the first place. It indicates that Vietnamese export firms continue to enjoy the labor advantages, and significantly increased the comparative advantages of the middle- and low-grade products of footwear through large-scale production, cost reduction and other ways. On the other hand,

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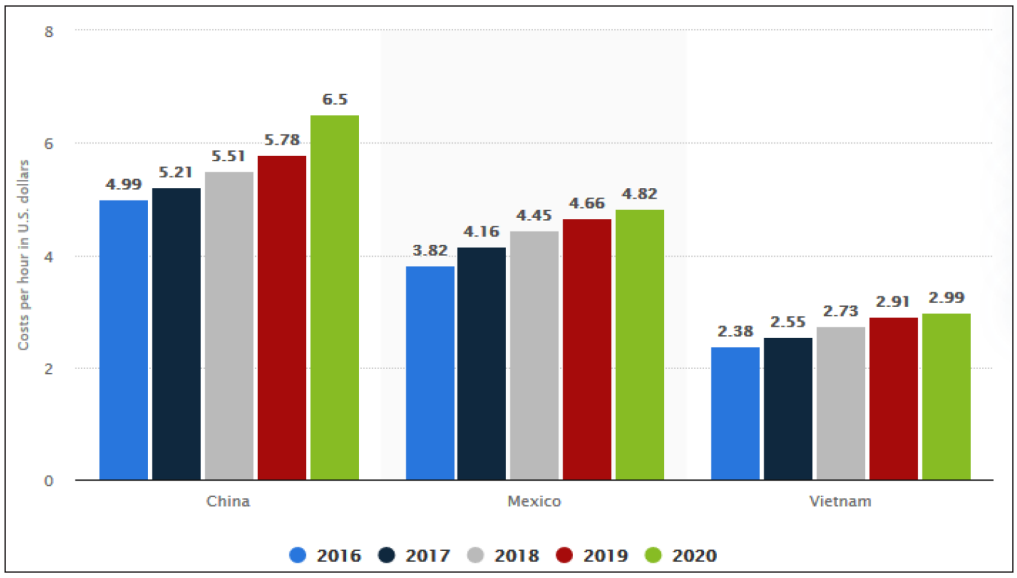
it also shows that Vietnamese footwear products are low in added value and still rely on low grade, low quality, and low price to penetrate the international market.

In the past two years, the human factor, namely labor, is considered a very influential factor in the competitiveness of footwear exports in Indonesia. Indonesia has high labor costs. The wages of footwear and footwear workers in Indonesia are considered high. Referring to data from the Board of Trustees of the Indonesian Footwear Association (Aprisindo), the average minimum wage for shoe workers in Tangerang, Banten, is the location of the most shoe and footwear industry in Indonesia, reached the US$ 179 or around Rp1.7 million / month. While Vietnam is US$ 95/month, and Cambodia is only US$ 61/month.

Figure 1. Manufacturing labor costs per hour for China, Vietnam, Mexico from 2016 to 2020 (in U.S. dollars)



Source: Duffin (2019).

Therefore, one of the triggers of the declining trend in world import demand for Indonesian footwear products is because foreign companies prefer to invest in other countries like Vietnam and Cambodia. It is based on one of them because the wages of workers in Vietnam are cheap (Indonesia Ministry of Trade, 2020). Furthermore, in the last five years, the minimum wage is the highest compared to China and Vietnam. Indonesia's minimum wage increase reached 37.95% compared to China, only 17.5%, and Vietnam by 26%. High minimum wages can cause unemployment. In the interim analysis, the company will choose to move the factory to an area with a lower UMR. As a result, layoffs occur.

This condition is in line with the results of the study of Ridhwan et al. (2015), which shows that minimum wages that are too high can cause layoffs and relocation of factories to provinces with a lower regional minimum salary (UMR). The cost of dismissal is high, around 50 times the weekly salary. It corroborated by the research of Takii and Ramstetter (2007), which stated that the regional minimum wage policy and the high cost of layoffs could hamper the improvement of footwear export competitiveness.

Moreover, although wages are still low relative to Indonesia, Vietnam cannot rely on a low-cost. Low costs labor in Vietnam led to lower production costs. The impact, an added value, is also little. For example, for shoes at low prices, research and development costs, design, and marketing are too small. In effect, the added value is low. Simply put, this is due to the percentage of unskilled labor, reaching 50% of the total workforce. Consequently, companies have weaknesses in managerial skills, inefficient organization, and limitations in supplying other resources (GDS, 2011; Hoang & Hong, 2016).

Furthermore, Hoang & Hong (2016) argue that low-cost workers' competitive advantage will not last long. Vietnamese shoe manufacturers must find other benefits in manufacturing. The reason, technological development will have an impact on the demands of skilled labor. For this reason, investment in information technology must become Vietnam's concern. Several studies have shown that increasing information technology investment is relatively beneficial for young Vietnamese residents who can work in international companies with high wages and social status (Shillabeer 2013). Sakellariou & Patrinos (2003) studied the impact of computer use on workers' salaries in Vietnam. Workers with higher education get a higher average annual wage increase than lower-skilled workers.

Overall, the competitive advantage of low-cost labor is not sustainable. Vietnamese footwear producers have to find and change their business strategy based on other benefits in production processing (Hoang & Hong, 2016). At the same time, Indonesia, a country with higher wages than Vietnam, has positive effects on the domestic economy. The benefit of this position is to have a skilled workforce; thus, an organization is more efficient. GDS (2011) argued that, although Vietnamese were having the competitive advantage of cheap labor, 50% of the workforce in the footwear industry is unskilled. It is clear to prove that low-cost labor strategy will not last long.

To accommodate the problem of high labor costs, Indonesia must: First, improve the workforce; with an improved quality of labor, it will reduce labor costs incurred so that companies will be more efficient. Second, properly arrange labor wage policies. To increase worker's real income, the government can help provide subsidies in the form of workers' housing, transportation, or education costs for workers' children without increasing labor costs for companies.

Table 7. Top Footwear Exporting Countries in 2015-2019

Exporters	Share in value in world's exports, % in 2015	Share in value in world's exports, % in 2016	Share in value in world's exports, % in 2017	Share in value in world's exports, % in 2018	Share in value in world's exports, % in 2019
World	100	100	100	100	100
China	21.01	18.05	17.07	16.08	16.06
Italy	14.09	15.05	15.01	15.01	14.02
Vietnam	9	8.08	8.09	9.04	13.04
Germany	4.07	5.03	6.04	6.07	6.07
Indonesia	4.05	4.06	5	5	4

Source: UN Comtrade, 2020.

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As a low-cost country, Vietnam competes through an aggressive pricing strategy, made possible by extraordinary low production costs. For a company, the low cost associated with making a profit. As a result, Vietnam is the third-largest player on global footwear export (see Table 7). Vietnamese exports of footwear have increased by an average annual rate of 9.45 percent for five years. At the same time, Indonesian footwear exports have increased by 4.62 percent. The value of Indonesian footwear exports estimated at US$2.6 billion in 2019. Growth has been particularly strong in the post-financial crisis period since 2009, which coincides with a generalized depreciation of the Indonesian rupiah vis-à-vis the US dollar and other major consumer-market currencies.

Table 8. The Major Destination For Indonesian Footwear

Importers	Share in value in Indonesia's exports, % in 2015	Share in value in Indonesia's exports, % in 2016	Share in value in Indonesia's exports, % in 2017	Share in value in Indonesia's exports, % in 2018	Share in value in Indonesia's exports, % in 2019
World	100	100	100	100	100
USA	26	25.03	27.01	27.08	33
China	7.07	7.06	9.04	10.02	12.08
Germany	8.07	9.09	8.08	8.08	8.04
Belgium	8.02	7.05	8.01	8	7.04
Japan	5.04	5.05	5	4.08	4.08
United Kingdom	7.08	5.09	5.06	5.07	4.01

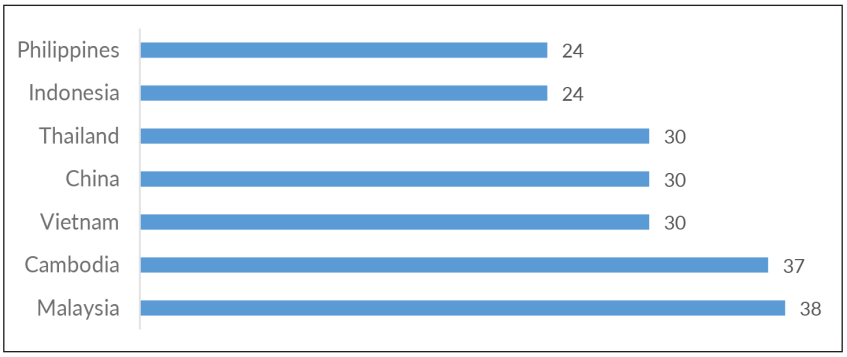
Source: UN Comtrade, 2020.

Overall, Vietnam has seen footwear exports increase more quickly than Indonesia. Indonesia's global market share is highest in uppers made from textile products (HS 6403), trailing only China, Vietnam, and Belgium in terms of global exports. Indonesian footwear products have a substantial worldwide reach and imported by 142 different countries around the world (The Conference Board of Canada, 2018). The top five countries account for more than half of the total, with the United States by far the most common destination for Indonesian footwear, followed by China, Germany, Belgium, and Japan. It can be seen in Table 8.

Moreover, Vietnam and Indonesia always occupy the top position as the most significant footwear exporting country in ASEAN. In 2016, the value of Indonesian and Vietnamese footwear exports declined, along with the number of world exports, which also fell. However, the Indonesian export demand increased again in 2017 and 2018. Meanwhile, even Vietnam's exports increased in 2017, but the number of footwear exports was lower compared to 2015 (see table 7).

These result show that there is an increasingly important dependence on some specific economies in the world. The unstable development and crisis of these economies could negatively impact the footwear export of Vietnam and Indonesia. In addition to wages, the low utilization of business services also makes Indonesia unable to optimize footwear exports' productivity. Indonesia ranked second-lowest with a percentage of 24%, while Vietnam was ranked third (30%).

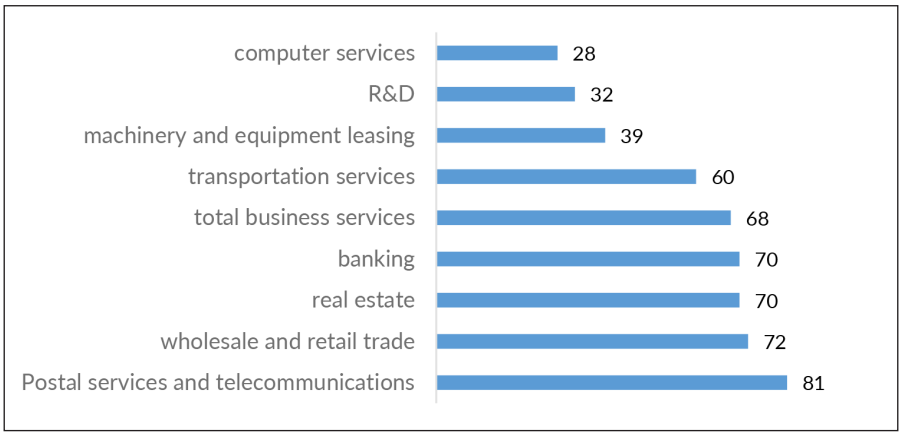
Figure 2. Low Share of Business Services in Exports



Source: The Conference Board of Canada, 2018.

As can be seen in Figure 2, business services account for 24 percent of Indonesian footwear exports in total. Specifically, Figure 3 shows that Indonesia captures just 28 per cent of computer services, 32 per cent of R&D, and 39 per cent of machinery and equipment leasing. The low usage of services in footwear R&D will have consequences for weak competition competence. There is a strong relationship between investment in R&D and the demand for skilled labor. Companies that have high intentions of R&D will need higher-skilled work. In the future, the need for skilled labor expected to continue to increase in line with product culture, which has a shorter life cycle and demands high R & D capability in every company.

Figure 3. Domestic share of servicers involved in exports are low for some industries



Source: The Conference Board of Canada, 2018.

Thus, overall, Indonesia faces several significant obstacles in efforts to increase its competitiveness against Vietnam, namely, higher employee wages and low utilization of business services, especially in R&D services. If Indonesia can make the high-wageest conditions to improve the quality of workers, then the added value will increase. After all, the high quality of human resources is needed to drive the development of R&D that can attract foreign investors to innovate in the footwear industry. The result is that export productivity will also increase. Furthermore, the successful export of footwear products as an assembly segment must supported by other factors, such as highly skilled R & D, technology, and human resources.

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Some of the previous studies show that innovation, research, and development (R&D) and human resources as a driver of competitiveness. Rua & França (2014) concluded that the competitive advantage in the Portuguese footwear industry must be based on value-added products and developed through innovative manufacturing processes and differentiation to take advantage of economies of scope (Batista et al., 2017). Ortega et al. (2014) mentioned that both exports and innovation and R&D are critical factors for the growth of firms and economies. They find that firms that invest in R&D are considerably more likely to export, but the reverse is not valid. Even though exporting does not stimulate investment in R & D, exports and R & D have a joint effect on improving productivity. Smith et al. (2002) also found that R&D is essential for being an exporting firm.

The positive relationship between exports and innovation also found by DiPietro & Anoruo (2006), and Correia & Gouveia (2015). The research of Chadha (2009) also analyzes the export performance of 131 Indian pharmaceutical firms for the period 1989-2004. The results indicate that technology proxied by foreign patent rights has a positive impact on exports. It suggests that developing countries with innovation skills for process innovations can penetrate international markets in the later stages of the product cycle using patents, the barriers to trade in the early stages of the product cycle. In their study for Vietnam's SME Sector, Nguyen et al. (2007) find that innovation as measured directly by new products, new production processes, and improvement of existing products, are essential determinants of exports by Vietnamese SMEs.

Conclusions

The findings of this study indicate that Vietnam is comparatively superior compared to Indonesia, with an average value of RCA of 9 and TSI 1. While RCA Indonesia is only four, and TSI is close to 1. The analysis with Diamond National Porter shows that Indonesia still faces significant challenges in wages and the low share of business service. With the condition of Vietnam, which is known as a low-cost country, it will be easier to attract investors.

This result implements the development of footwear industry policies that must identify from upstream to downstream comprehensive and sustainably. Affirmative policies made must be used to overcome short-medium term problems. Some strategies suggested improving it. Strategies suggested are: First, improving the quality of the workforce. High wages, combined with high-quality workers, will produce comparative advantages for Indonesia. Second, increasing productivity. Third, increasing R&D activity, and 4) increasing awareness of more environmentally friendly specifications. If those policies can implement as well as possible, The Indonesian footwear industry will grow positively. Then Indonesia's footwear exports will equal or even exceed Vietnam's exports.

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