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PRIVATE SECTOR ASSISTANCE PROJECT



An Analysis of the Global Value Chain for Indonesian Apparel Exports

Canada

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An Analysis of the Global Value Chain for Indonesian Apparel Exports

By: The Conference Board of Canada

About the TPSA Project

The Canada–Indonesia Trade and Private Sector Assistance (TPSA) project is a five-year, \$12-million project funded by the Government of Canada through Global Affairs Canada. The project is executed by The Conference Board of Canada, and the primary implementation partner is the Directorate General for National Export Development, Indonesian Ministry of Trade.

TPSA is designed to provide training, research, and technical assistance to Indonesian government agencies, the private sector (particularly small- and medium-sized enterprises, or SMEs), academics, and civil-society organizations on trade-related information, trade policy analysis, regulatory reforms, and trade and investment promotion by Canadian, Indonesian, and other experts from public and private organizations.

The overall objective of TPSA is to support greater sustainable economic growth and reduce poverty in Indonesia through increased trade and trade-enabling investment between Indonesia and Canada. TPSA is intended to increase sustainable and gender-responsive trade and investment opportunities, particularly for Indonesian SMEs, and to increase the use of trade and investment analysis by Indonesian stakeholders for expanded trade and investment partnerships between Indonesia and Canada.

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Executive Summary

This report provides an in-depth look at the apparel manufacturing industry in Indonesia. While the industry's share of overall output has fallen slightly in recent years, it remains an important sector for Indonesia. There are some major challenges facing the industry; to ensure its long-term viability, these challenges must be addressed.

To fully appreciate those challenges, it is important to understand what Indonesia's apparel manufacturing industry currently produces, and where it is positioned in the value chain. Further, it is important to assess the industry's present and historical ability to capture market share in both the international and domestic marketplaces (the latter being quite large). With a complete picture of the Indonesian apparel industry, we can identify the existing and future challenges for the industry and make recommendations that will help it remain viable over the long term.

Apparel production can be qualitatively broken down into two main segments: those requiring synthetic (or man-made) fibres, and those using natural fibres. Apparel made from synthetic fibres tends to command a higher price and therefore has the potential to generate additional revenue. Compared to its developing-country peers, Indonesia produces a relatively low share of apparel made from synthetic fibres.

There is a standard manufacturing production process for apparel, from initial design to shipment to the customer. Within this process apparel exports to Western countries, Indonesia's industry is focused on the "cut, make, and trim" (CMT) segment, which is generally lower value compared to other activities in the supply chain. However, production for export to Middle Eastern countries and the domestic market includes other elements of the supply chain, such as design and distribution. We can examine how the production process translates into a value chain (i.e., how the various activities that are undertaken to produce apparel add value relative to one another). When we view the analysis through this lens, we see that the assembly of inputs (manufacturing) adds the lowest amount of value. The best opportunity for Indonesia to increase value added would be to increase the cost competitiveness and quality of its manufacturing process.

Looking at Indonesia's ability to capture market share abroad, it is clear that apparel exports have had a difficult time in recent years. Furthermore, Indonesia's apparel export market is not well diversified, with 50 per cent of exports destined for the United States and a relatively high share going to its top 10 destinations. But Indonesia's population of 258 million creates a large domestic market, offering another opportunity for Indonesia to grow its apparel industry by continuing to add value at home. One way to achieve higher value-added in the exports of apparel would be to establish local brands internationally.

The challenges facing Indonesia's apparel industry include the high cost of importing cotton, unreliable energy supply and rising energy costs, old capital stock and low business-investment spending, rising wages, a labour force with low productivity, and a poor reputation for adhering to labour standards.

Given the current state of apparel manufacturing in Indonesia and the challenges facing the sector, this report makes a number of recommendations to help position the industry to remain viable over the long term:

- Accept rising wages and move up the value chain.
- Invest in updated machinery.
- Improve energy reliability.



- Improve communications and customer service capabilities.
- Establish domestic brands internationally.
- Sign free-trade deals to compete with preferential tariff status of competitors.
- Promote and adhere to high labour standards.
- Improve worker skills and productivity.

Indonesia's apparel industry is already an important contributor to the country's economy, but there is room to increase the benefit it provides. Implementation of the above recommendations will help Indonesia's apparel industry position itself for strong growth in the future, while extracting more value from the sector as it currently exists.



Apparel Manufacturing in Indonesia



The production of apparel is an important part of Indonesia's economy, accounting for roughly 1.2 per cent of output in 2016.¹ Growth in apparel production averaged 2.6 per cent per year between 2011 and 2016; however, growth in the overall economy has outpaced that of apparel manufacturing and thus its importance to Indonesian's economy has diminished over the last five years. In 2011, apparel production made up 1.4 per cent of Indonesian output.

Even though apparel manufacturing's relative importance to the economy has shrunk in recent years, it remains an area of potential export growth. Indonesia is one of the world's largest exporters of apparel, giving it a dominant market position in the industry. Further, low wages compared to the rest of the world have allowed it to remain cost-competitive. However, as the Indonesian economy continues to develop, wages will increase, meaning that firms in the industry must re-evaluate how and what they produce, as their low labour-cost advantage will not last indefinitely.

This report will outline ways Indonesia can strengthen its position in the competitive international apparel market. The first part of the report provides an overview of Indonesia's apparel industry, with a focus on what it makes and how it measures up against comparator countries. Next, the report describes the production process for apparel manufacturing, followed by an analysis of the Indonesian value chain and the potential for moving to higher-end services. This is followed by a discussion of Indonesia's current export and domestic market performance. Key challenges facing the industry will be explored, followed by conclusions and recommendations to improve the competitiveness of Indonesia's apparel industry.

¹ Kuncoro, *Indonesia's Textile and its Products Industry*.



Indonesia's Apparel Industry

This chapter provides an overview of the apparel industry in Indonesia, focusing on the types of apparel produced and how Indonesia compares to other developing countries with large apparel-manufacturing industries.

There are two ways to differentiate apparel products:

- by fabric, with a distinction between natural and synthetic/man-made;
- by weave, with HS codes that distinguish between knitted or crocheted items (HS 61) and non-knitted or crocheted items (HS 62).²

In 2016, Indonesia's apparel exports were split roughly in half between the two codes, with 55 per cent of exports from HS 61 (up from 53 per cent in 2012) and 45 per cent from HS 62. From a product standpoint, the main area of export strength are women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers, bibs, bracer overalls, breeches, and shorts. This segment accounts for 19 per cent of knitted or crocheted products and 24 per cent of non-knitted products.

Man-Made Versus Natural Fibres

Apparel production can be qualitatively broken down into two main segments: those made with synthetic (or man-made) fibres, and those made with natural fibres. Analysis by the type of fibre used in Indonesian production can be difficult based on available data, and is inferred in this analysis based on its exports.

To complete this analysis, HS codes are broken into two categories: Those which mention man-made or synthetic fibres make up the first group, while the other is made up of products using natural or unclassified fibres. Within HS 61, 34 HS codes indicate use of synthetic fibres,³ while within HS 62 there are 27 such codes.⁴

Indonesia's apparel exports made from man-made textiles are lower than those from similar apparel-producing countries (including China, Thailand, Vietnam, and Bangladesh). Within HS 61, 26 per cent of Indonesia's exports were made with man-made or synthetic material. (See Chart 1.) This is lower than other countries that have created successful export markets for their textiles, such as China (42 per cent) and Vietnam (36 per cent). However, Indonesia has a higher export share of apparel with man-made fibres than Bangladesh, and rates have been increasing recently: In 2012, just 22 per cent of Indonesia's HS 61 apparel exports were of man-made or synthetic fabrics, but that number had grown to 26 per cent by 2015.

² The Harmonized Commodity Description and Coding System (HS) is an international system developed by the World Customs Organization that is used to classify traded products using standardized names and numbers. It is used by both Canada and Indonesia to classify the products they export and import. There are two levels of HS code: four-digit (HS4) and six-digit (HS6). More digits in the HS code means greater detail in the description of products. In this report we refer to six-digit codes.

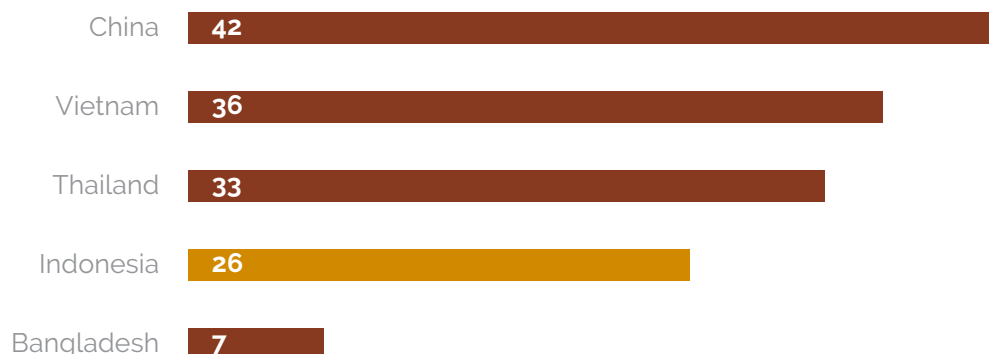
³ HS 61 codes considered man-made or synthetic: 610130, 610230, 610312, 610323, 610333, 610343, 610413, 610423, 610433, 610443, 610453, 610463, 610520, 610620, 610712, 610722, 610792, 610811, 610822, 610832, 610892, 611030, 611130, 611212, 611231, 611241, 611430, 611511, 611512, 611521, 611522, 611593, 611596, 611693.

⁴ HS 62 codes considered man-made or synthetic: 620113, 620193, 620213, 620293, 620312, 620323, 620333, 620343, 620413, 620423, 620433, 620443, 620453, 620463, 620530, 620640, 620722, 620792, 620811, 620822, 620892, 620930, 621133, 621143, 621430, 621430, 621440, 621520.



CHART 1: SHARE OF HS 61 EXPORTS USING MAN-MADE OR SYNTHETIC FIBRES IN 2015

(share of country's total apparel exports, per cent)

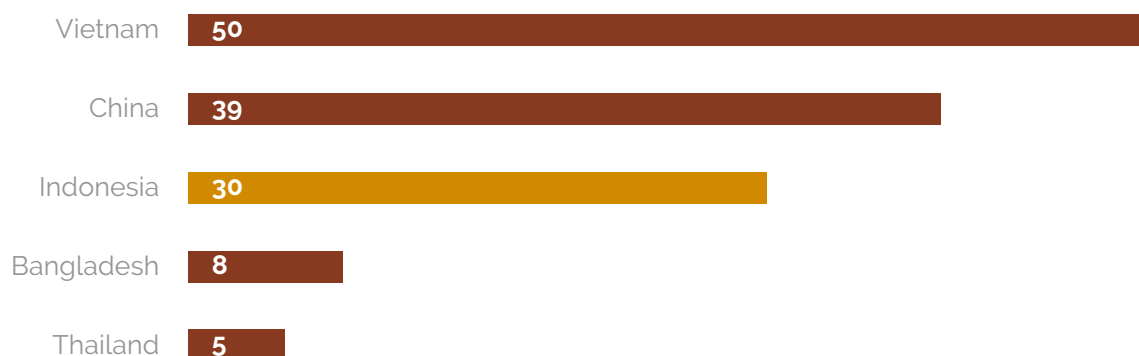


Source: UN Comtrade database.

The share of Indonesia's exports in the HS 62 category made from synthetic fibres is also lower than some of its peers. (See Chart 2.)

CHART 2: SHARE OF HS 62 EXPORTS USING MAN-MADE OR SYNTHETIC FIBRES IN 2015

(share of country's total apparel exports, per cent)



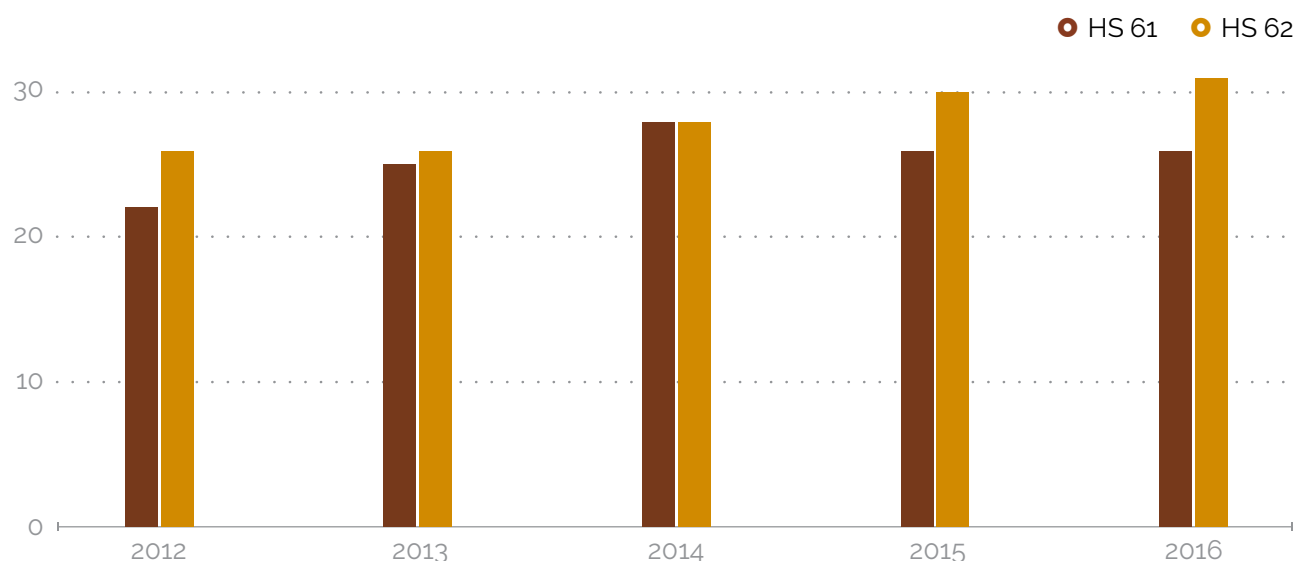
Source: UN Comtrade database.

While its export share of synthetic-fibre apparel is still lower than that of other countries, it has increased steadily in the past few years, from 26 per cent in 2012 to 31 per cent in 2016. (See Chart 3.) This is still below China and Vietnam, where shares of HS 62 synthetic-fabric apparel exports in 2015 were 39 and 50 per cent respectively. In particular, Vietnam's share has increased substantially in recent years, rising from 40 per cent in 2012 to 50 per cent in 2015.



CHART 3: GROWTH IN INDONESIAN APPAREL EXPORTS USING MAN-MADE OR SYNTHETIC FIBRES

(share of total exports using synthetic or man-made fibres, per cent)



Source: UN Comtrade database.

The upward trend in the share of exports made from synthetic fibres in both the HS 61 and HS 62 categories is indicative of the broader trend in Indonesia's apparel industry. Within HS 62, exports of apparel using man-made materials grew by 23 per cent between 2012 and 2015. During that same time frame, exports of apparel made with natural fabrics grew by only 0.2 per cent, with all that growth occurring in 2012, as exports fell each year between 2013 and 2015. Further declines in many segments after 2015 suggest that Indonesia's loss of preferential tariff status has put extra downward pressure on exports.⁵

A similar trend is observed when looking at HS 61, where exports of apparel using man-made fabrics grew by 13 per cent between 2012 and 2015, while exports of apparel using natural fabrics have declined in each of the last five years, down a total of 8.1 per cent over that period. This trend allows Indonesia to capture more of the value add in the apparel supply chain given that the synthetic fibres are produced locally.

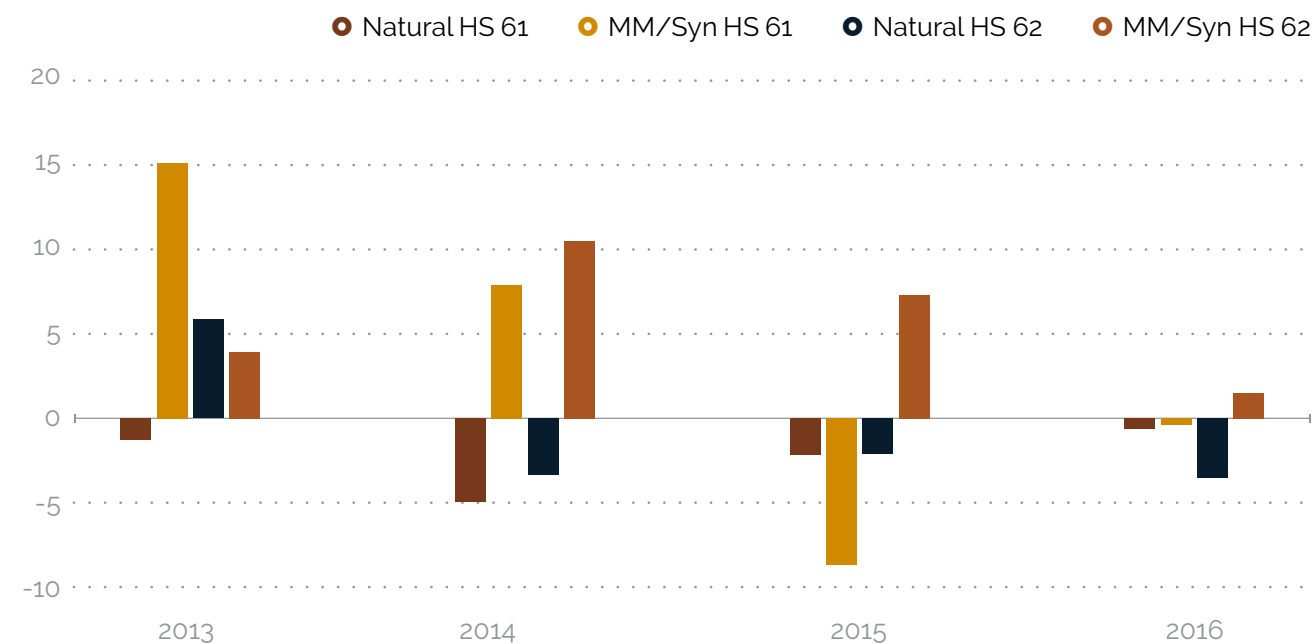
The recent export trends for HS 61 and HS 62 demonstrate that Indonesia has increased its production of apparel made from man-made fibres. (See Chart 4.) Nevertheless, its share of exports made from these fabrics continues to lag behind countries such as China and Vietnam, which have both entrenched themselves in goods made from these fabrics. There remains room for Indonesia to further shift its production to apparel made from man-made fabrics.

⁵ In January 2015, Indonesia, along with 71 other countries, lost its general preferential tariff treatment, which was replaced with most-favored nation tariff rates. For more information see <https://www.milgram.com/milgram/en/news/article?id=8228>.



CHART 4: GROWTH IN MAN-MADE AND SYNTHETIC PRODUCTION OUTPACING NATURAL FIBRES IN INDONESIA

(annual growth in exports by fabric, per cent)



Sources: UN Comtrade database.





Production Process⁶

In the standard manufacturing production process for apparel value-added activities are typically situated at the end points of the process. Currently, Indonesia's industry for the Western export market is concentrated in the "cut, make, and trim" (CMT) segment, which is usually lower-value compared to other activities in the supply chain. A sourcing agent, typically from the purchasing country, handles most of the other parts of the value chain. There are five main stages in the production process, each of which is described below.

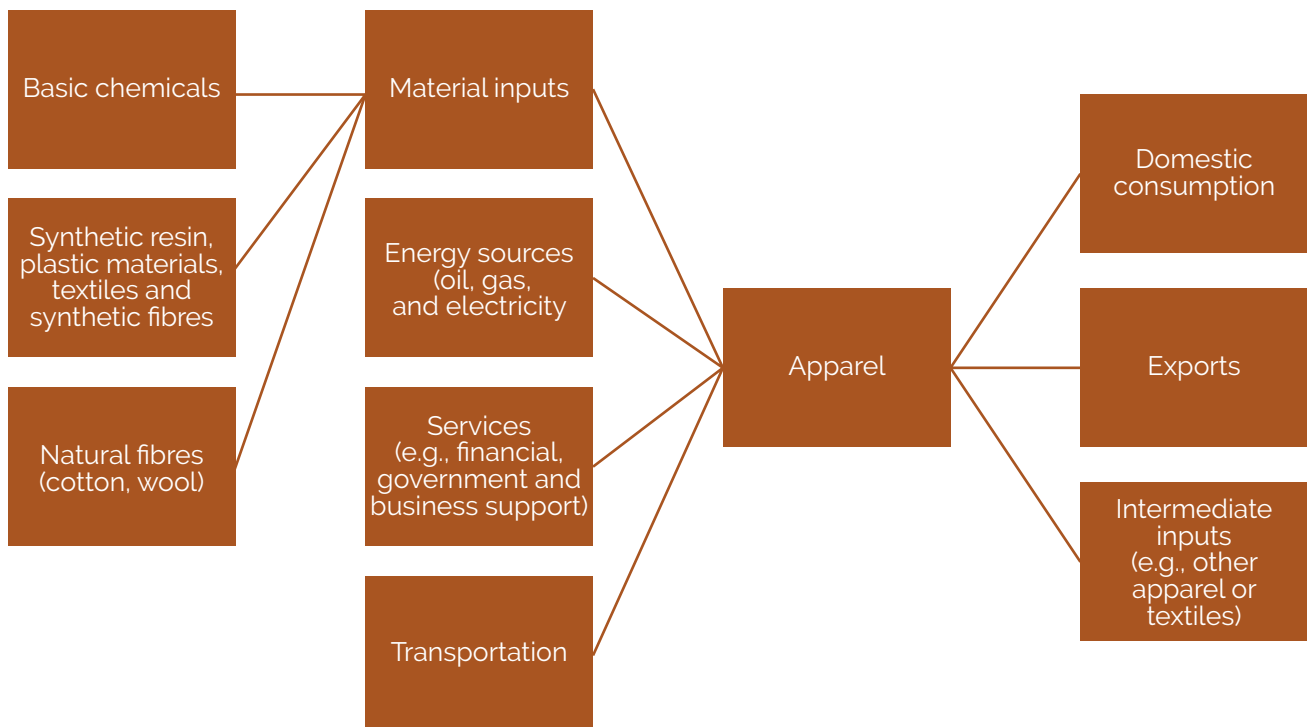
Product Development, Research and Development (R&D), and Design

The standard process involves product development, which typically consists of design, but could also include a request for different, more expensive, or in-demand fabrics. At this stage, a sourcing agent will look for factories that meet a certain set of criteria regarding adherence to labour regulations, quality standards, and any other criteria they deem necessary.

Sourcing Inputs

At this stage, inputs are sourced through an agent as needed to create the design. Indonesia's apparel manufacturers handle little of this process; instead, a service provider inside or outside the company is usually hired to design the garment in question. As shown in Exhibit 1, many inputs are required to produce apparel.

EXHIBIT 1: APPAREL PRODUCTION PROCESS



Source: The Conference Board of Canada.

⁶ The description of the production process is largely taken from Industry Canada, *A Canadian Approach*.





Assembly (CMT)

Assembly is the main source of work for Indonesia's apparel manufacturing industry. Firms typically work on a contract basis for larger global clothing companies to produce a set amount of clothing during a specified period of time. In this stage, Indonesian firms will cut the fabric and make the garment.

Assembly is lower-value than most other areas of the production process, but also the area in which Indonesia is most competitive. A consultant we spoke to while preparing this report confirmed that Indonesia is mainly found in the CMT segment, in most cases using natural fibres.

Outbound Transportation

The logistics department oversees exports and imports. These include managing duties, customs, and any other cross-border issues, as well as making arrangements with transportation companies.

Marketing and Sales

Marketing and sales teams play a key role in securing clients and keeping track of trends. Activities undertaken by the marketing team include following market trends to help support design teams, monitoring competitor activities, price-setting, and organizing product launches.

The marketer's activities support those of the product sales team. The team will meet with new clients in order to sell products or secure contracts. Key undertakings in this area include demonstrating notable features or other unique selling points of the line. The sales team will also typically ensure that deliveries can be made.

A key distinction must be made between the activities of a manufacturing firm and those of a vertically integrated global firm. Typically, a vertically integrated firm will take on many of the above activities themselves, and outsource production to a manufacturing firm. As a result, the vertically integrated firm will take on the higher-value end points of the value chain, particularly design and R&D in the pre-production stage and logistics, sales, and marketing in the post-production stage.

Manufacturing firms, particularly those in Indonesia, will take on contracts for the assembly (CMT) part of the process. These contracts will typically come from larger, more vertically integrated firms and, as a result, while the manufacturing firm may actually make the garment, it typically earns a smaller portion of the value.





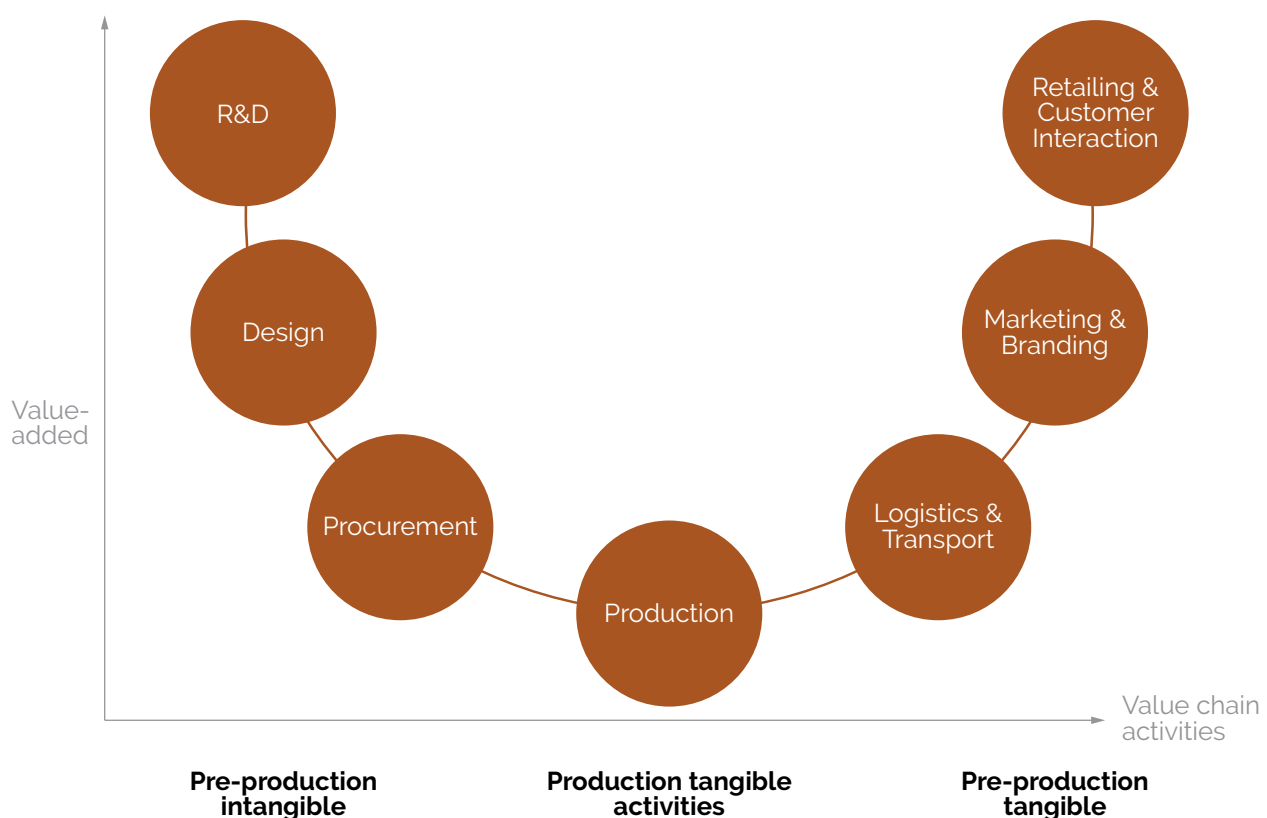
Value-Chain Analysis

As noted in the previous chapter, there are multiple stages of production in the apparel industry, and each has varying degrees of associated value. In this chapter, we look at the components of the value chain for the apparel industry in general and then focus on Indonesia, examining how much of the value chain its apparel industry captures.

Analyzing Value Chains: The Smile Curve

There are two ways for a country to increase its export value: export more or shift its exports to higher-value activities. The different segments of the value chain can be visualized using the smile curve. (See Exhibit 2.) Based on the curve, the key to moving up value chains is to move away from production and toward pre-and post-production services. These areas are not only higher value, but their share of value has been increasing since the 1970s, an indication that it is more important than ever to move up the value chain.⁷

EXHIBIT 2: THE SMILE CURVE AND VALUE-ADDED ACTIVITIES ALONG THE CHAIN



Source: Lopez Gonzalez, "Using Foreign Factors."

⁷ OECD, *Interconnected Economies*.



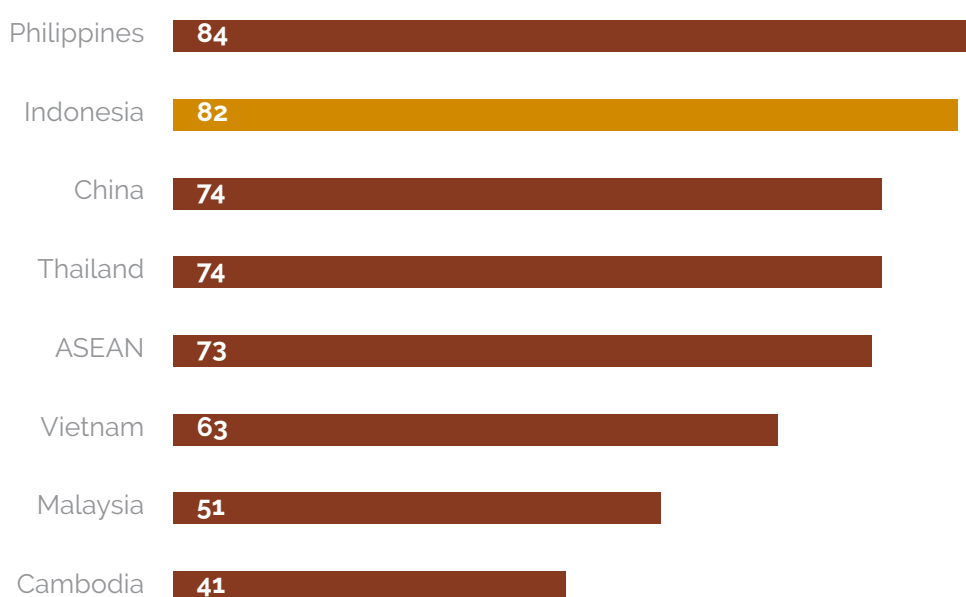
How Much Value Does Indonesia Extract?

A good source for information on global value chains is database developed jointly by the Organisation for Economic Co-operation and Development (OECD) and the World Trade Organization (WTO) called the trade in value added (TiVA) database.

The TiVA database does not explicitly have an apparel category, but rather a combined category for textiles, textile products, leather, and footwear (TTPLF). The TiVA database shows that Indonesia currently captures roughly 82 per cent of the value chain in its TTPLF exports, a share that has remained roughly constant since 1990. (See Chart 5.) What this means is that for every \$1 in exports, 82 cents of the work occurs in Indonesia, and the other 18 cents in other countries. Since Indonesia's exports have been increasing, the dollar value of the export activity captured in Indonesia has risen.

CHART 5: SHARE OF DOMESTIC VALUE-ADDED IN TTPLF EXPORTS TO TOTAL EXPORT VALUE, 2011

(share of domestic value-added to total value of exports, per cent)



Source: OECD-WTO TiVA database.

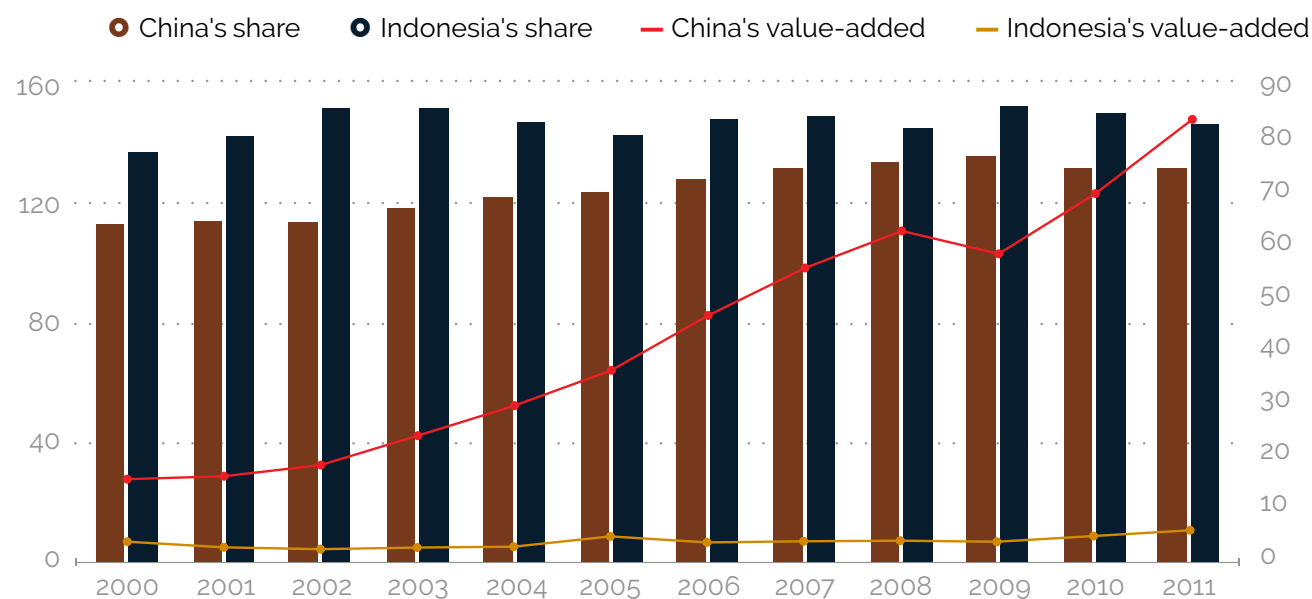
Even though its share of captured value has remained constant over the last 10 years, Indonesia does a good job of extracting value compared to peer countries. Despite its relatively high share, further improvement can be achieved by improving competitiveness through expanding labour market capabilities, investing in new machinery, and increasing the efficiency of export-oriented business services.

To find a country with a low share of value-added but high total value, one only has to look at China, which has relatively low shares of value-added extracted from exports, but has increased its total exports substantially in recent years. As a result of stronger export growth and an increase in the share extracted domestically, China has experienced a significant increase in the value extracted from its TTPLF exports. (See Chart 6.)



CHART 6: CHINA ADDING MORE VALUE DESPITE A LOWER SHARE

(domestic value-added in TTPLF exports, US\$ billions; share of total value extracted domestically, per cent)



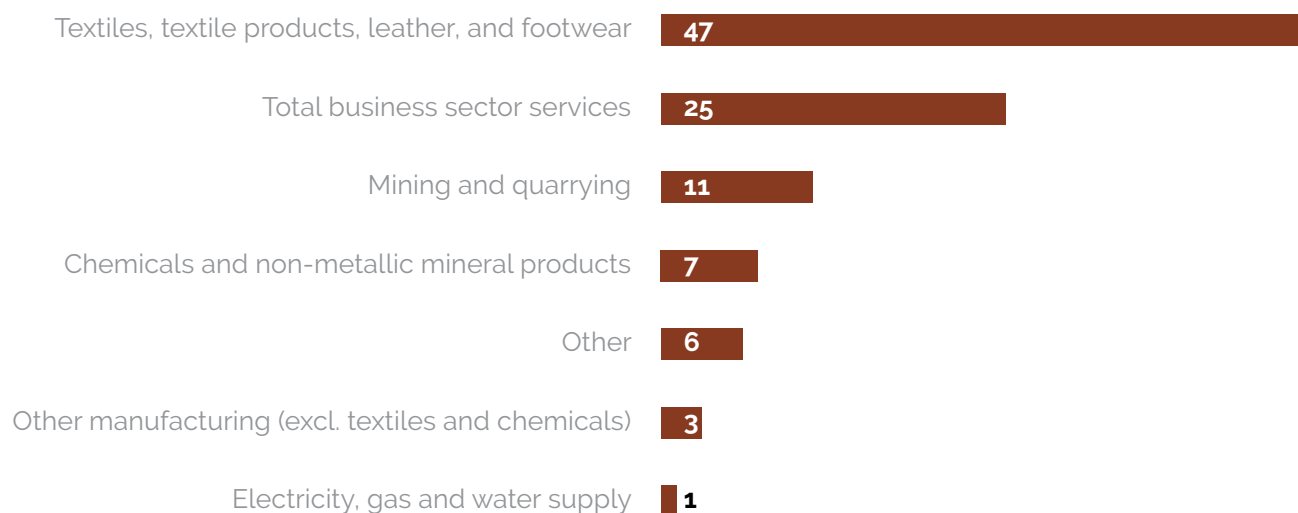
Source: OECD-WTO TiVA database.

Indonesia's Value Chain

Material inputs, such as textiles, textile products, leather, and footwear are the main input into Indonesia's TTPLF exports, followed by business services, mining and quarrying, and chemicals and non-metallic mineral products. (See Chart 7.)

CHART 7: KEY SOURCES OF VALUE IN INDONESIA'S VALUE CHAIN, 2011

(share of total value-added for TTPLF group, per cent)



Source: OECD-WTO TiVA database.

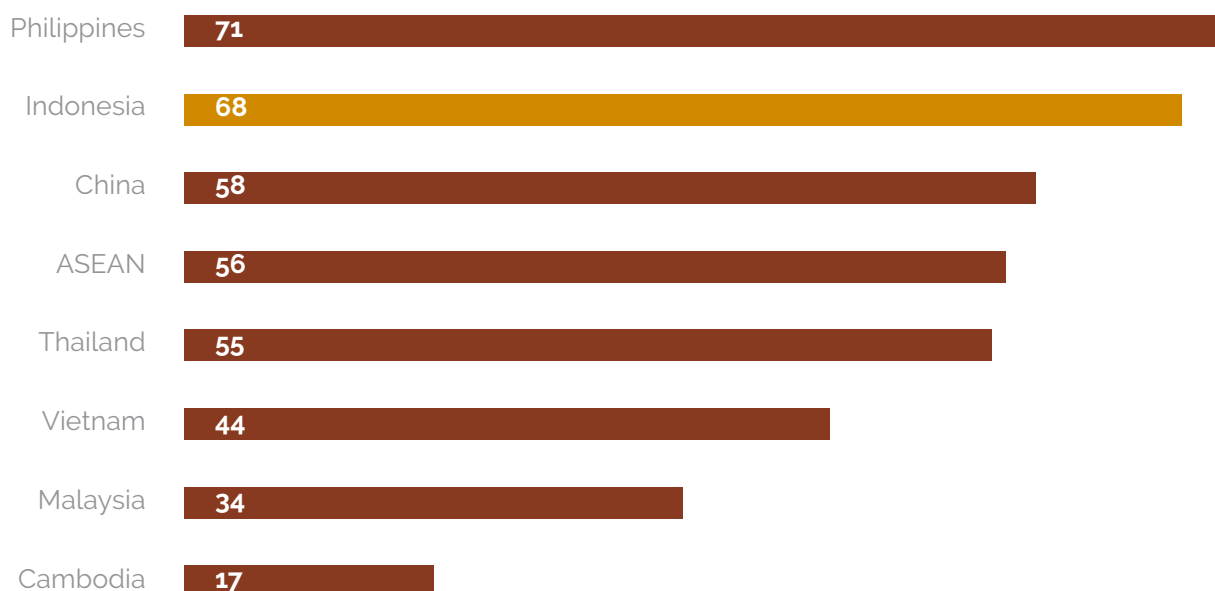




Total business sector services are typically higher-value activities in the value chain, and Indonesia does have a relatively high share of domestically produced business services to total business services when compared to its peer countries. (See Chart 8.)

CHART 8: SHARE OF TOTAL BUSINESS SECTOR SERVICES IN APPAREL EXPORTS CREATED DOMESTICALLY, 2011

(share of total apparel-related business services that are domestically produced, per cent)



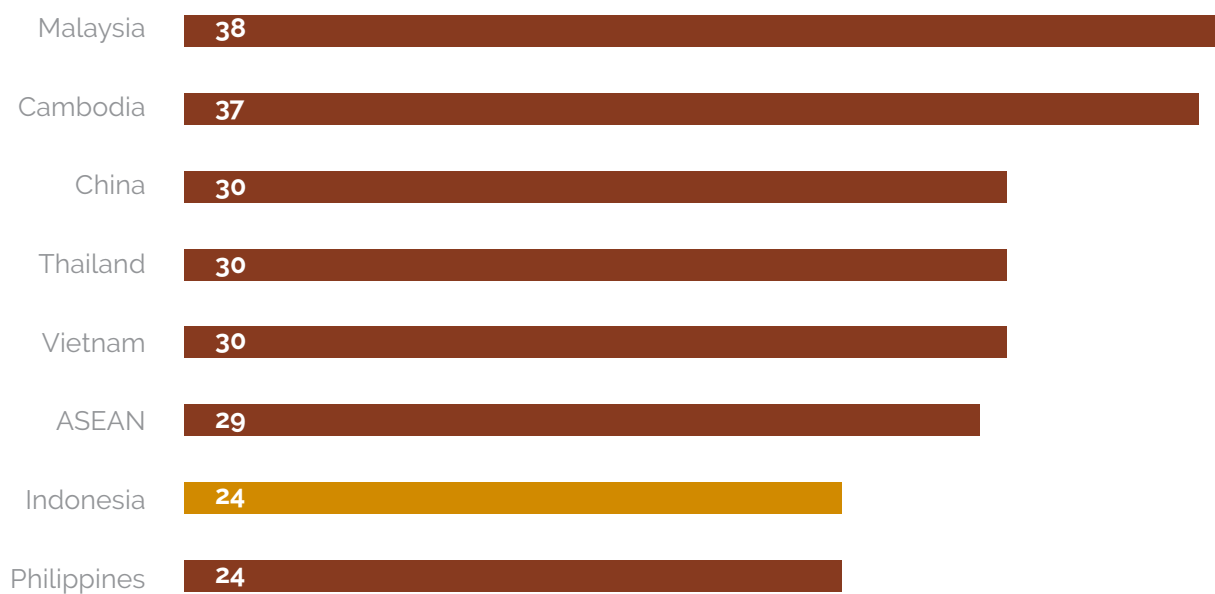
Source: OECD-WTO TiVA database.

However, while Indonesia does extract a high share of this value in its exports, its products have among the lowest levels of embedded business services of any country in the TiVA database. (See Chart 9.) This finding was corroborated in an interview with a consultant, who noted that Indonesia is "good at producing basics." Indonesia could, therefore, seek to increase the share of high-value business services in its exports.



CHART 9: SHARE OF DOMESTIC SERVICES TO TOTAL APPAREL EXPORTS, 2011

(share of business services embedded in exports, per cent)



Source: OECD-WTO TiVA database.



Indonesia's Export and Domestic Market Performance

Indonesia's Place in the Global Apparel Market

Indonesian apparel exports (HS 61 and HS 62) have experienced growth each year since 2002, with rapid growth between 2007 and 2011, but have struggled in recent years. (See Chart 10.) This weak export growth has not been confined to the apparel sector, with Indonesia's entire export sector struggling recently. Indeed, apparel exports have fared better than overall exports and, as a result, the share of apparel exports to total Indonesian exports has improved. Generally, apparel remains an important industry for Indonesia, accounting for around 5 per cent of its exports.

CHART 10: IMPORTANCE OF APPAREL EXPORTS TO INDONESIA

(value of exports, US\$ billions; share of total Indonesian exports, per cent)



Source: UN Comtrade database.

Even though apparel is an important export commodity for Indonesia, its share of global apparel exports declined between 2011 and 2015, as world exports continued to grow while Indonesian apparel exports were relatively flat. In 2016, global apparel exports declined while Indonesia's exports remained flat and, as a result, Indonesia saw its highest share of global apparel exports in over a decade. With roughly 2 per cent of global apparel exports originating in Indonesia and a large domestic population to support the industry, Indonesia is a major player in the global apparel trade. (See Chart 11.)



CHART 11: INDONESIA'S POSITION IN THE GLOBAL APPAREL MARKET

(value of global exports, US\$ billions; Indonesia's share of apparel exports, per cent)

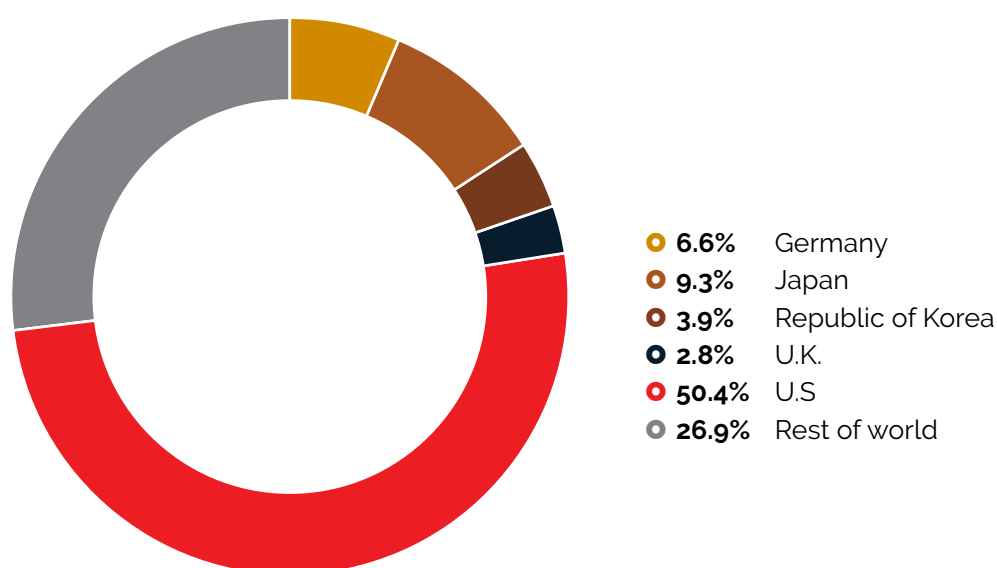


Source: UN Comtrade database.

Indonesia's top five destinations for exports in 2016 were the U.S. (50.4 per cent), Japan (9.3 per cent), Germany (6.6 per cent), South Korea (3.9 per cent), and the U.K. (2.8 per cent). (See Chart 12.) What is interesting about these destinations is that while they are wealthy countries, three of the five are relatively far from Indonesia. In a cost-competitive industry, Indonesia could attempt to capture more market share closer to home, although this is made difficult by the number of other major producers nearby.

CHART 12: TOP 10 DESTINATION MARKETS FOR INDONESIA'S APPAREL EXPORTS IN 2016

(share of Indonesia's apparel exports, per cent)



Source: UN Comtrade database.

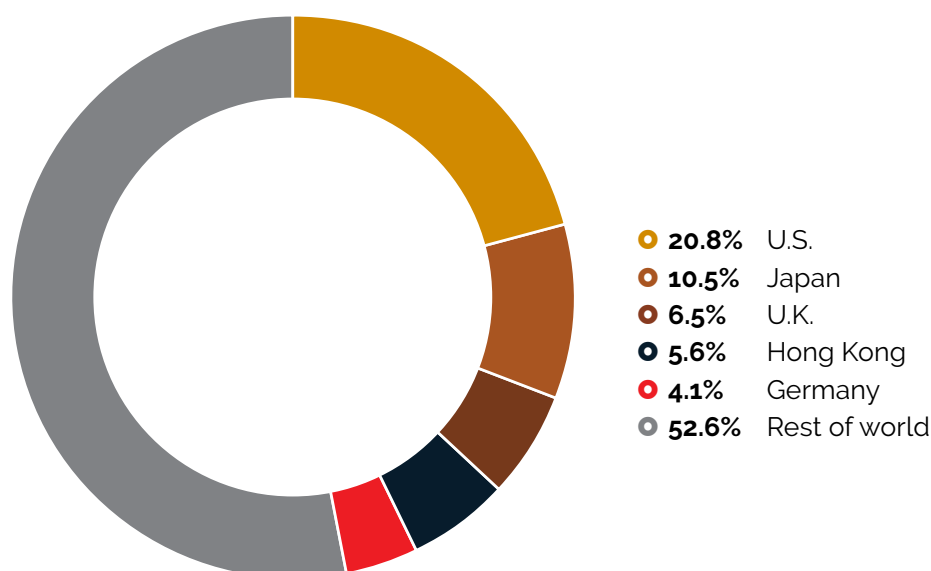




Diversification of its export markets is also important for Indonesia. China, a larger player in the apparel export market, has a far more diversified market for its output. China's main export destinations are the U.S. (20.8 per cent), Japan (10.5 per cent), the U.K. (6.5 per cent), Hong Kong (5.6 per cent), and Germany (4.1 per cent). (See Chart 13).

CHART 13: TOP 10 DESTINATION MARKETS FOR CHINESE APPAREL EXPORTS IN 2016

(share of China's apparel exports, per cent)



Source: UN Comtrade database.

Indonesia depends on its top 10 export markets far more than China. In Indonesia, the top 10 export destinations account for 85 per cent of exports, while in China this share is only 61 per cent. In particular, the fact that Indonesia is so dependent on exports to the United States is a concern, as its distance to market is quite large, and closer, low-cost manufacturing countries (such as those in the Caribbean) pose a competitive risk.

Diversification efforts are underway, with Indonesian apparel exports to the United States declining slightly in four of the last five years, while the value of Indonesia's exports to other Asian markets has increased substantially. This is a positive move for Indonesia, as these are countries with which it can more easily compete on costs, although there are many local competitors fighting for market share. Indonesian exports to Japan, China, Australia, South Korea, and Hong Kong have shown the largest increases, and many Asian or more developed countries make up the rest—a positive sign for the industry.

TABLE 1

EXPORTS OF INDONESIAN APPAREL INCREASED MOST TO ASIAN COUNTRIES BETWEEN 2012 AND 2016 (TOP 10 COUNTRIES WITH THE LARGEST INCREASES)

Country	Change in Annual Apparel Exports 2012–2016 (US\$)
Japan	206,910,290





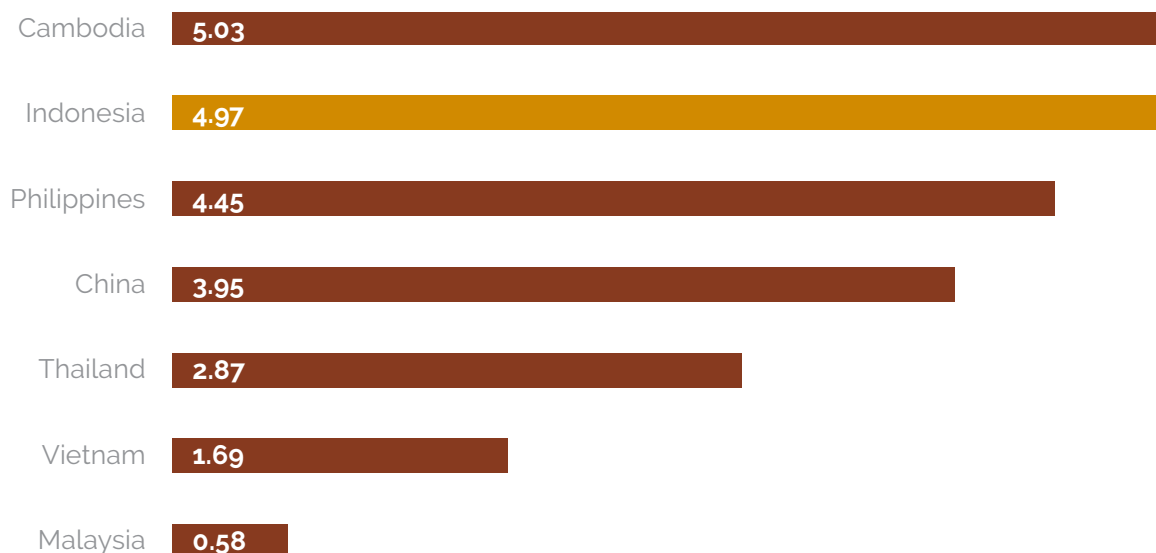
China	99,502,456
Australia	84,492,825
South Korea	70,292,886
Hong Kong	33,680,210
Poland	27,433,349
Malaysia	23,281,984
Canada	16,494,848
Belgium	13,577,295
Thailand	10,519,574

Sources: U.N. Comtrade database.

The international market is just one destination for Indonesian apparel products. Indonesia's population of 258 million offers a large internal market; therefore, it is also important to examine how Indonesia is doing at capturing its own market. The TiVA tables give some indication, showing that Indonesia significantly improved its value-added to domestic final demand in textile and apparel manufacturing between 2000 and 2011 (the last year available in TiVA). Indonesia has seen the fourth-largest increase in value-added in domestic final demand of the 51 economies covered in TiVA, with value-added in domestic demand in 2011 nearly five times what it was in 2000. (See Chart 14.)

CHART 14: GROWTH IN VALUE-ADDED IN DOMESTIC FINAL DEMAND, 2000–2011

(five-year growth rate of value-added in domestic final demand, per cent)



Source: OECD TiVA database.

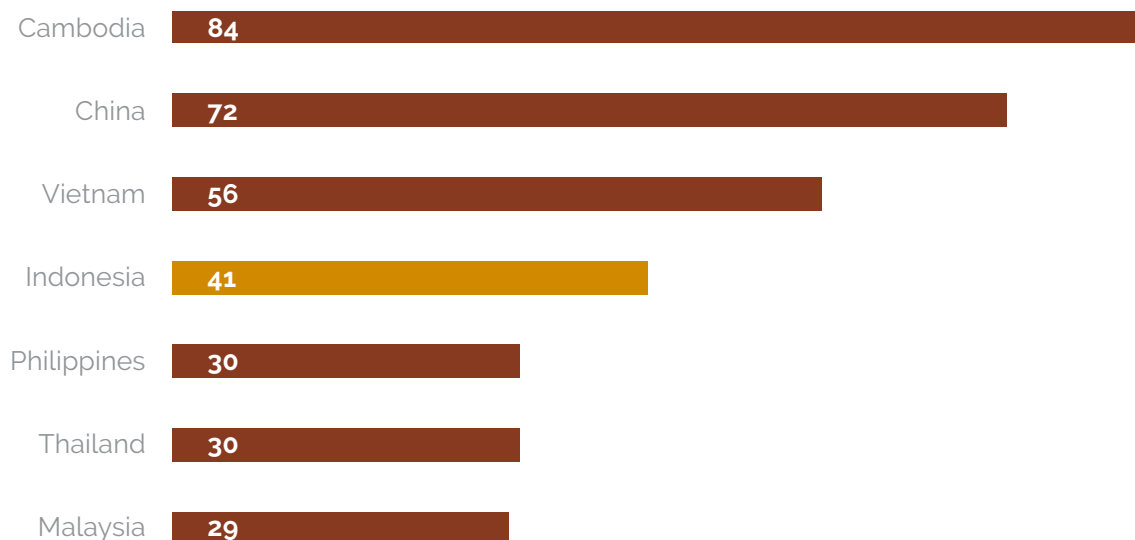
This high domestic demand presents a second avenue for Indonesia to grow its apparel industry by continuing to add value at home. While Indonesia has done well in growing the actual value of demand for apparel, there is still room for improvement, as nearly 60 per cent of the value-added in domestic final



demand comes from other countries. This is about average among the 51 countries monitored in TiVA, but significantly below some of its comparator countries. (See Chart 15.) Thus, if Indonesia hopes to grow its footprint abroad, it can start by extracting more value at home, perhaps by establishing domestic brands internationally, which would allow it to move up the marketing value chain.

CHART 15: SHARE OF VALUE-ADDED IN DOMESTIC FINAL DEMAND, 2011

(share of domestic value-added to domestic final demand, per cent)



Source: OECD TiVA database.



Areas of Non-Competitiveness

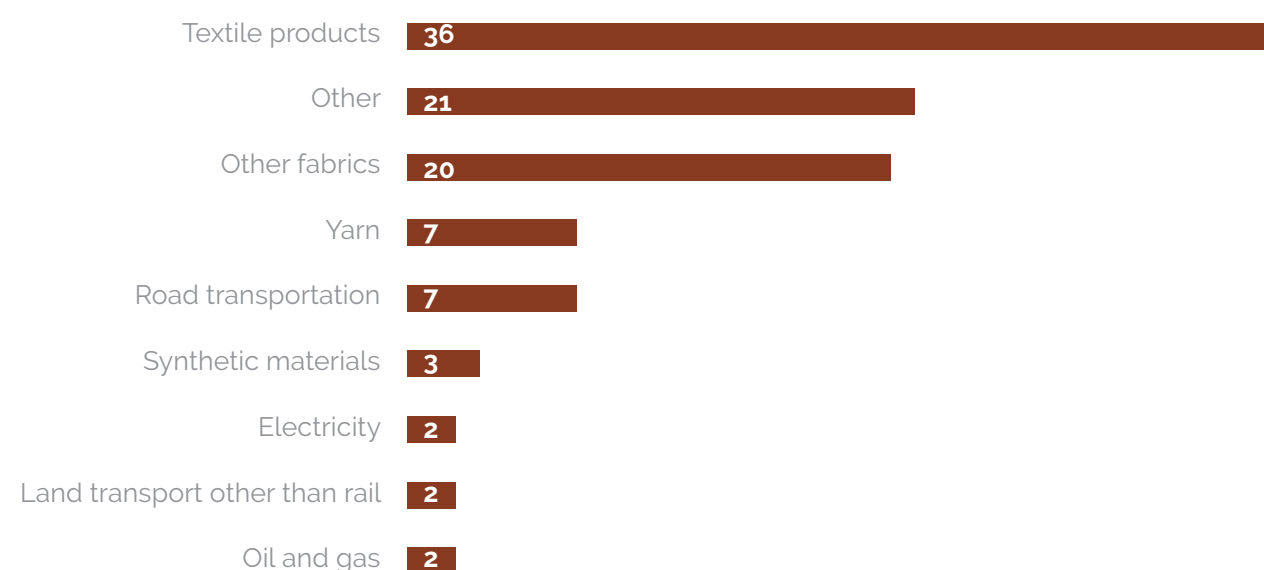
The previous chapters identified what is produced in Indonesia's apparel industry, where Indonesia fits in the value chain, and how the industry has fared in the international and domestic markets in recent years. In this chapter, we explore some of the challenges currently facing the industry which, if addressed, can help Indonesia's apparel industry flourish in the 21st century.

Fabric Inputs

The main inputs into Indonesia's apparel manufacturing industry are textile-related: textile products, other types of fabric, and yarn. In all, fabric inputs account for approximately 60 per cent of total inputs. (See Chart 16.)

CHART 16: MAJOR INPUTS INTO INDONESIAN APPAREL PRODUCTION

(share of total value of inputs, per cent)



Source: Statistics Indonesia.

Compared to other countries, Indonesia is at a disadvantage when it comes to natural fibres. Of the top five apparel exporters to the United States (in 2006), Indonesia was the only one that did not produce cotton.⁸ As a result, Indonesian firms are at a significant disadvantage compared to other major exporters, and must be more efficient in their production of clothing using natural fibres in order to maintain low enough costs to compete globally.

⁸ FIAS, *Improving Indonesia's Competitiveness*.



Energy

Indonesian businesses face challenges stemming from the reliability of energy supply. Indonesia's power was formerly supplied by Perusahaan Listrik Negara (PLN), which operates as a monopoly, resulting in weak investment.⁹

Despite the country's significant energy resources, Indonesia's energy supply is costly, not always reliable, and the available supply is geared toward the main economic centers. The issue of energy reliability was brought up by a consultant we spoke to, who noted that many businesses use their own diesel generators to augment energy sourced from the grid. It was suggested that if businesses could sell their energy back to the grid, this would improve both their cost competitiveness and the availability of energy in the country.

Another major development in the provision of energy in Indonesia is the end of an energy subsidy that was distorting prices in the country. The subsidy from the government guaranteed PLN would earn costs plus a 7 per cent margin, which both reduced its cost competitiveness and overburdened the government. Costs were capped, and the government covered any deficit,¹⁰ so naturally, the removal of the subsidy is expected to lead to a significant increase in the price of energy, which will have an adverse effect on Indonesia's apparel industry. A consultant we interviewed noted that the industry is already in a precarious state, as it does not produce products using high-end fabrics or have a strong enough business climate to compete with China. Further, due to losing its preferential least-developed country tariff treatment, it can no longer compete on price. An increase in energy-related costs will be difficult for the industry to absorb, especially as the higher-cost energy is not reliable.

Investment in Machinery and Equipment

Investment in machinery and equipment is another challenge facing the apparel industry. According to the Ministry of Industry, about 80 per cent of the 8.38 million units of machinery currently in use in the apparel industry are more than 20 years old. This lack of investment shows up in key segments for Indonesia, particularly in the CMT segment. For example, 5 million of the 7.8 million spinning needles in use are over 20 years old. 82 per cent of weaving machinery, 93 per cent of finishing-industry machinery, and 78 per cent of garment-industry machinery is also more than 20 years old. According to that same Ministry report, the industry would need Rp44.07 trillion to satisfy the required levels of investment.¹¹

Despite the age of the current capital stock and the need to replenish it, a key government support for machinery investment is soon to be cancelled. A consultant we spoke to noted that many companies would like to see the return of a previously-existing government cost-sharing program to upgrade capital goods.

Further, the investment landscape as a whole is important to consider. Chongbo (2005) notes that investors complain about a lack of certainty, corruption, and bureaucracy, which could shift investment decisions toward other countries.¹² As result, it is important to keep an investor view in mind to maintain Indonesia as a destination for apparel investment, as a strong machine-base is key for Indonesian exports to compete globally.

Machinery rental is one area where Indonesia relies heavily on imports, meaning that this is value created outside of the country. The latest data show that Indonesia is capturing only 39 per cent of the value of rented machinery, among the lowest of any input.

⁹ Tharakan, *Summary of Indonesia's Energy Sector Assessment*.

¹⁰ ADB, *Fossil Fuel Subsidies in Indonesia*.

¹¹ Kuncoro, *Indonesia's Textile and its Products Industry*.

¹² Chongbo, "Indonesia Textile and Garment Industry."



Labour Costs

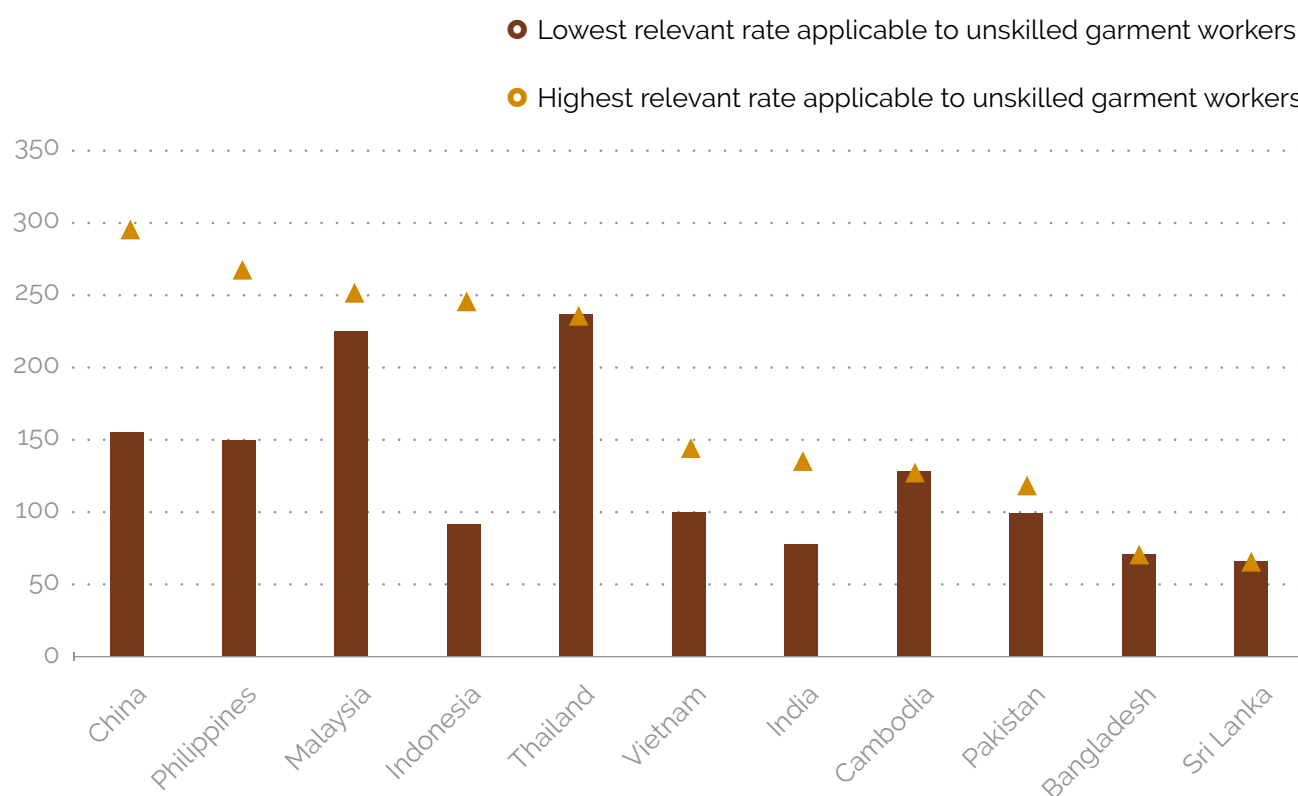
Labour is a key input into apparel production. Wages and salaries account for 15 per cent of supply in Indonesia, greater than in other countries with available input-output data such as India and Mexico. In all, employment in Indonesia's apparel and textile sectors is estimated to be 1.49 million, representing 1.35 per cent of the country's workers.¹³

Apparel manufacturing is considered low wage, but important to developing countries. According to the United Nations Industrial Development Organization (UNIDO), 7.5 per cent of manufacturing value-add in developing countries comes from textiles and apparel, compared with less than 2 per cent in developed countries.¹⁴ This is due in part to the fact that wages are lower in developing countries.

However, wages are beginning to rise in Indonesia, particularly as a result of new minimum-wage legislation.¹⁵ As companies seek to compete on price, Indonesia is at a disadvantage compared with some countries due to its higher minimum wage. Indonesia's highest relevant rate is higher than that of its competitors in Vietnam, India, and Bangladesh. (See Chart 17.) However, wages vary considerably by region, and many apparel firms are moving to lower-wage regions in order to continue to compete on price. These low-wage regions are likely to be successful producers of apparel, but could face skilled-labour shortages.

CHART 17: MINIMUM AND MAXIMUM MINIMUM WAGES FOR UNSKILLED GARMENT WORKERS

(US\$)



Source: ILO 2015.

¹³ Kuncoro, *Indonesia's Textile and its Products Industry*.

¹⁴ UNIDO, *Industrial Development Report 2016*.

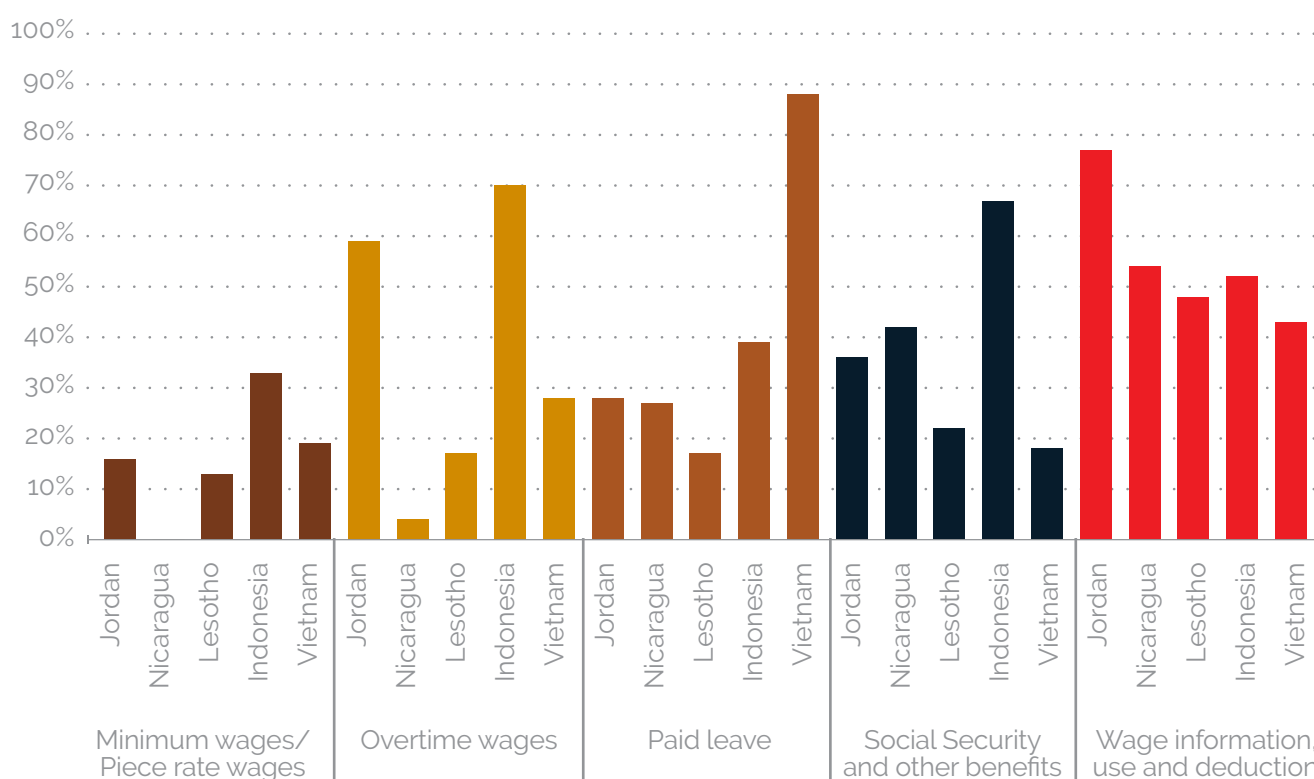
¹⁵ Jakarta Post, "Jakarta Sets 2018 Minimum Wage."





Additionally, studies from the International Labour Organization's Better Work program indicate that low wages are often accompanied by other labour problems, such as non-compliance of national regulations. (See Chart 18.) Generally, non-compliance is related to lack of paid leave (e.g., not approved or discouraged requests, lack of appropriate payment to women workers), social security and benefits, inaccurate payments, and insufficient wage information.¹⁶ Of the countries assessed by the Better Work program, Indonesia has one of the highest non-compliance levels. While this makes producing textiles in Indonesia less expensive than it otherwise would be, it is not a sustainable practice. As a result, the industry faces yet another threat: increased costs due to the transition toward compliance with minimum wages, benefits, and other labour standards. While this will increase production costs, there are potential benefits as well, since many international firms only work with production facilities that meet labour standards. Therefore, improving compliance could enhance the ability of Indonesian firms to secure larger contracts from well-developed countries.

CHART 18: NON-COMPLIANCE LEVELS WITH WAGE AND BENEFITS PAYMENTS IN FACTORIES ASSESSED BY THE BETTER WORK PROGRAM



Source: Better Work statistics cited in ILO 2014.

Rising minimum wages and improving labour standards mean that labour costs in the apparel industry are likely to rise. This is an issue given the cost-competitiveness of this industry. As a result, Indonesian apparel manufacturers will need to find other ways to boost margins, either by increasing their use of machinery to automate certain processes or through a shift toward higher-value products that are less price-sensitive.

Complicating the labour issue in Indonesia is the fact that there is no national minimum wage. As shown in Chart 19, Indonesia has a wide range between the lowest payable minimum wage and the highest; in fact, it has the largest differential of any country listed, which has led to movement across regions.

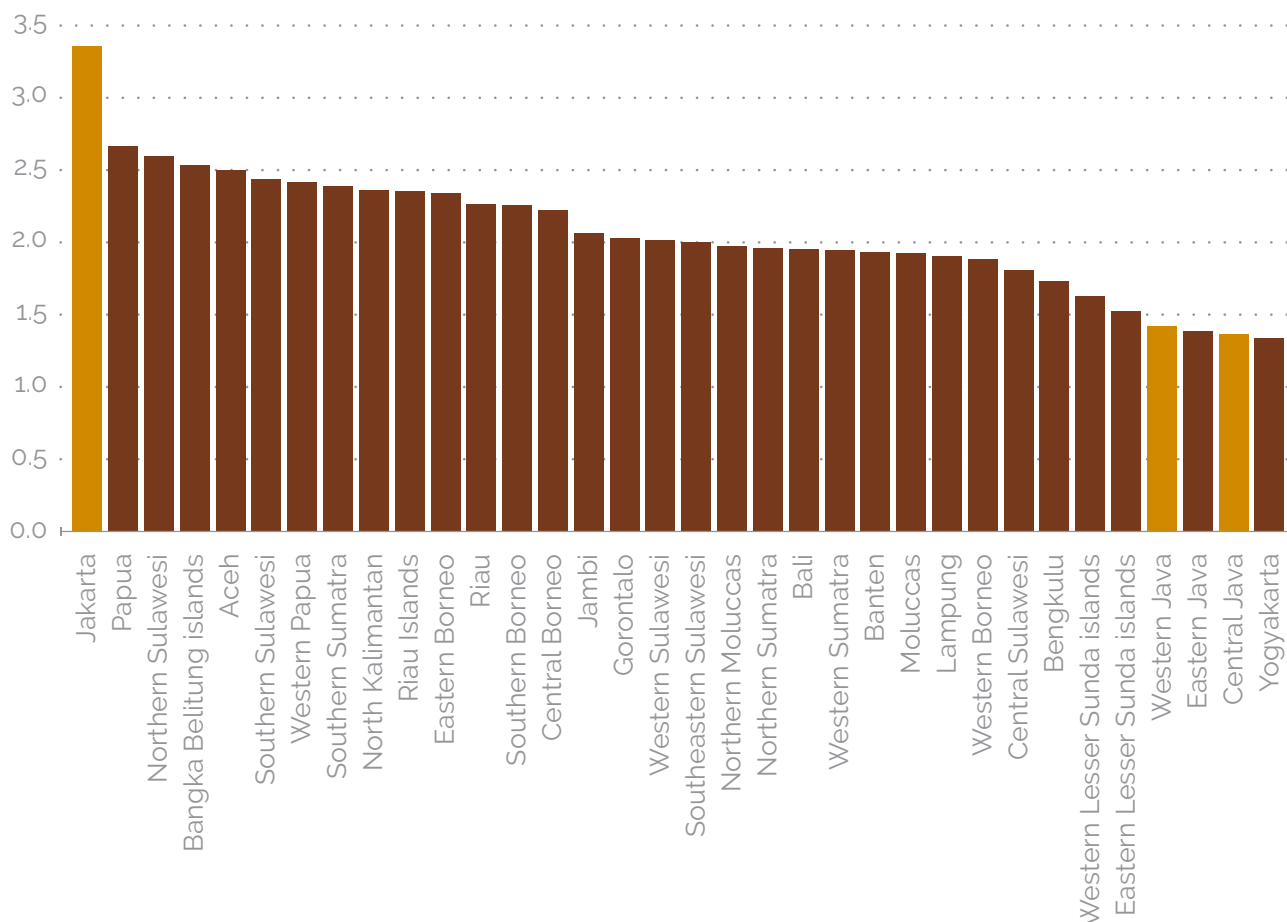
¹⁶ ILO, *Wages and Working Hours*.





CHART 19: MONTHLY MINIMUM WAGE BY PROVINCE

(Rupiah, millions)



Source: Wageindicator.org.

Jakarta, traditionally the major centre for apparel and textiles production, has seen a significant rise in its minimum wage, leading to the movement of companies to lower-wage regions such as Bandung (Western Java) and Solo (Central Java).¹⁷ While it is sensible for companies to want to pay lower wages, the infrastructure in these regions, particularly human capital, is insufficient to improve the quality of products being manufactured by Indonesian firms.

Human-capital requirements are not as available in the newer production regions and data suggest output per worker is lower. (See Chart 20.) While lower minimum wages allow for companies to be less efficient, requiring as low as one-third of the productivity, this has negative consequences for Indonesia's reputation abroad. Indonesian clothing already has a poor reputation for reliability per a consultant, and the movement toward lower-skilled workers will likely exacerbate this problem. Further, moving to these new regions requires training the local population (if mobility is low); however, this training is largely in the CMT segment.

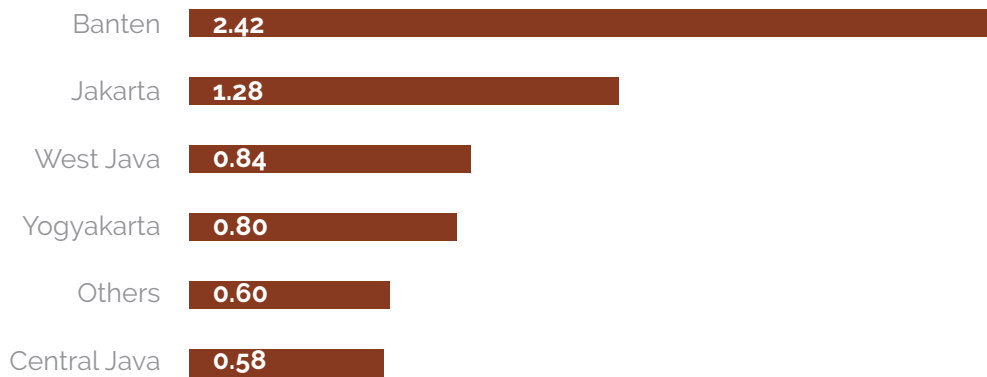
¹⁷ Kuncoro, *Indonesia's Textile and its Products Industry*.





CHART 20: EMPLOYMENT PRODUCTIVITY INDEX

(a value of 1 indicates the region produces average value per worker for Indonesia)



Source: Statistics Indonesia.

In response to higher minimum wages in Jakarta, firms have decided to seek lower wages in other parts of the country, despite the fact that their production may move to a lower-skilled workforce. As wages continue to rise in Indonesia, it will become increasingly difficult to continue this shift toward lower labour-cost regions. Further, relocation in response to rising wages makes it less likely Indonesia's apparel industry will move up the value chain. In addition to looking to minimize labour costs, the apparel industry could augment its business practices to extract more value, including establishing domestic brands internationally and becoming more efficient in its manufacturing process by upgrading machinery and increasing the skills of its workers.





Conclusions and Recommendations

Indonesia's apparel industry is important to its overall economy, and the production facilities already in place can support further growth. However, there is substantial international competition in the global apparel market. To position itself for future success, the industry must address a number of challenges, including rising wages, the type of products produced, reliability and ease of business, machinery investment, and its position in the value chain.

Based on the analysis presented in this report, we make the following recommendations:

Accept Rising Wages and Move Up the Value Chain

The relocation of Indonesian firms in response to higher minimum wages in Jakarta is problematic. It will be increasingly difficult for Indonesia to compete on costs in the future as its economy develops further and wage pressures rise, meaning the movement is somewhat short-sighted. Indonesia no longer enjoys preferential tariff status, and wages are likely to continue to rise in conjunction with the development of its economy.

Firms can also develop into larger, more global players. For example, firms can begin to undertake even a small amount of extra value-add processes, such as handling the logistics of sourcing materials as well as sending products to the final destination. Local firms have a better understanding of the domestic transportation process and can leverage this knowledge, extracting value from customers who currently purchase these services. Firms can also position themselves inside the value chain of smaller companies from other countries, particularly those looking to export to Indonesia's large domestic market, which do not necessarily have the capacity to take on the whole production process.

Invest in Machinery

Aging machinery presents a major challenge in the new-era economy where machines can do almost any rote task. With an aging stock of machinery, Indonesian firms are likely to struggle to maintain the efficiency required to compete for higher-end products. As a result, it is important for Indonesian firms to continue to invest in machinery to produce more sophisticated products at a lower cost, rather than continue to compete in lower-priced, cost-competitive goods, an area where they are losing their competitive advantage as wages increase. The government can play a supportive role in this by implementing programs to entice making machinery investment.

Produce Goods Using Higher-End Fabrics

Indonesian firms are well-suited to produce goods whose consumers are less price-conscious, such as athletic items using synthetic materials. Firms would have to increase their efficiency in this regard; however, the ability to produce these items will help keep Indonesian apparel manufacturers firmly plugged into the production process of multi-national companies, particularly those in sporting apparel. This could be achieved by government support of local research and engineering power for producing these chemicals, which would also allow Indonesia to be a domestic source for more of its apparel inputs.



Improve Energy Reliability

A common complaint from consultant reports was energy reliability and the ongoing need for in-house diesel generators. This is a major issue for firms in the apparel industry, as it hurts cost competitiveness (due to paying overhead costs and wages for idle time), as well as creating a situation where firms are not directly in control of their reliability. Any disruption to the grid would affect the ability of some firms to meet strict deadlines, reducing their ability to fulfill contracts with short lead times. Further, the need for diesel generators competes with investment in machinery. A consultant noted that many firms would like to re-sell the excess energy they generate with their own generators back to the grid, which would help off-set some of their energy related costs and provide better energy reliability in Indonesia.

Build Domestic Brands

Moving up the value chain can be a struggle as most of the value along the chain comes from the brand name associated with the product. As a result, to create a long-lasting apparel export industry that is relatively immune to rising wages, Indonesian firms should look to establishing local brands internationally. The Indonesian government could bolster support for these larger domestic brands by supporting export abroad through education programs on how to export and creating a knowledge center for exporting in various countries, which will especially help SME's export into other Asian countries.

Sign Free-Trade Deals to Compete With Preferential Tariff Status of Competitors

The textile and apparel industry is particularly cost-competitive. With other competitors, notably Bangladesh, in possession of favourable tariff rules due to its LDC status, Indonesia is in a difficult spot to compete on price. However, if Indonesia can sign mutually beneficial trade deals, it would be in a position to reduce tariff costs and compete on price. Otherwise, Indonesia will have to move to more sophisticated products where price is less of an issue.

Promote High Standards

It is important for firms in Indonesia to continue to comply with labour regulations and be conscientious of the environment during production. As many developing and developed countries become ever more mindful of the environment and labour conditions in factories, it will be vital for Indonesia to market itself as a destination for goods created with care for the environment and the people who produce them, as failing to do so may lock them out of some destinations who are more progressive on these issues.

Improve Overall Competitiveness

According to the World Economic Forum (WEF), Indonesia ranks 41st in global competitiveness. While this is above many apparel manufacturers, particularly Vietnam, it trails others, such as Thailand.¹⁸ The goal of the ranking is to rank countries by the "set of institutions, policies and factors that determine the level of productivity of an economy". This is a key area to tackle for Indonesian apparel exports, as machinery will become ever more important, and in a cost competitive industry, being productive means lower costs and a greater ability to export.

Indonesia has some natural benefits for competitiveness, particularly its large domestic population which can support industrial growth internally. On this measure, Indonesia ranked 10th in the WEF report. However, Indonesia ranks 108th in labour market efficiency and 91st in technological development.¹⁹

As a result, training will be key for expanding that apparel industry's export value. This can be done through education in higher end services, such as marketing, as well as developing more technology internally.

¹⁸ WEF, *The Global Competitiveness Report 2016–2017*.

¹⁹ Ibid.





This in turn can be accomplished either through supporting investment in machinery, or development of industrial engineering programs which could allow Indonesia to further support its own industry by developing machinery internally. This innovation is an area Indonesia is already ahead of the game: while ranking 41st overall in global competitiveness, Indonesia ranks 32nd in the innovation and business sophistication category, substantially above Thailand and Viet Nam.²⁰

While Indonesian's apparel industry is already an important contributor to its economy, there is room to increase its beneficial impact. By implementing the above recommendations, Indonesia's apparel industry can position itself for strong growth in the future and extract more value from the existing industry.

²⁰ Ibid.





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